

HINTS AND FACTS
ON
THE ORIGIN OF MAN
AND OF
HIS INTELLECTUAL FACULTIES.

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NEW YORK
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LONDON:
LONGMANS, GREEN, AND CO.
1872.

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TO THE READER.

THE WRITER of the following pages does not put forth this treatise as one which is altogether new and original. He has here brought together systems, facts, statements, and reasons, taken from all available sources, with the view of elucidating several important truths about man, which are at the present day either called in question or absolutely denied. These truths relate to man's origin, his first parents, the development of his speech and reason, his natural condition and state, his intellectual powers, and the agreement of the teaching of natural sciences on these points with the Holy Scriptures.

The aim of the writer is not to enter into polemical disputations with any author. He only intends to supply materials, in order to enable the reader to form a judgment about the soundness or unsoundness of assertions on moral and metaphysical subjects, which are to be found in the writings of recent authors, and which, on account of the scientific knowledge there displayed, are apt to be received as conclusively proved.

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ОБЩИН
ВЪЗН

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HINTS AND FACTS
ON THE
ORIGIN OF MAN,
&c.

CHAPTER I.

OPINIONS OF THE ANCIENTS ON THE ORIGIN OF MAN.

I. THE EARLIEST HISTORY of the Assyrians, Chaldees, Egyptians, and Indians, is so confused and contradictory that nothing can be ascertained respecting it. Anyone perusing the writings of the early historians of these nations, Herodotus for instance, will find that this Greek historian ascribes to the Assyrians an empire extending over one thousand five hundred and twenty years; and dates the first existence of that nation eight hundred years previous to their empire. The Chaldean Berosus, who wrote about a hundred and twenty years after Herodotus, carries back the Assyrian empire to four hundred thousand years. Xenophon and Ctesias are at variance with one another and with the above-named writers, so that Strabo does not hesitate to say that we should rather give credence to the poets Hesiod and Homer than to the assertions of Ctesias and Herodotus.¹

II. It is true that Buffon² tells us that the Indians held that every existing being was derived originally from an idea

¹ Lib. xii. Hist.

² *Histoire des Travaux.*

called by them Prakrite, that the idea (Prakrite) brought forth Ankara, a substantial being, who produced the senses and sensations; that Ankara gave birth to Adima, who contained within himself the embryos of all men and animals from the elephant to the ant; that Adima united in himself the natures both of man and woman (hermaphrodite), and then he was parted into two, and gave birth to the first men; that this Adima was afterwards metamorphosed and gave birth to a bull. Buffon also tells us that the opinion of the ancient Egyptians was that the first living being in the world sprung up from the sand and mud of the river Nile heated by the rays of the sun.

It is clear, however, that as we do not possess authentic documents, we cannot ascertain what were in reality the systems of these primitive nations concerning the origin of man, the Jews excepted.

III. The Greeks, from whatever region they came, do not appear to have brought with them any tradition on this subject: hence their philosophers had antagonistic opinions about the origin of the world and mankind. Thales of Miletus¹ stated that everything is derived from water. Anaximander² held that the universe, being of an unlimited nature, produced the elements, which constitute the formative matter of all existing things. Anaxagoras³ affirmed that little particles were dropped down from the infinite matter; these were at first mixed together in confusion, but afterwards arranged by an infinite mind. Anaximenes⁴ stated that all definite natures, earth, fire and water, are derived from the air, supposed to be infinite; these combined gave origin to all other things. Empedocles⁵ held the same opinion. Parmenides and Heraclitus derived everything from fire.⁶ Plato laid it down that

¹ Cic. *De Nat. Deor.* lib. ii. No. 10.

² M. T. Cic. *Lucullus*, No. 37, *Alias Academicor.*

³ *Ibid.*

⁴ *Ibid.*

⁵ *Ibid.*

⁶ *Ibid.*

God, from the matter which comprises everything, made this world eternal.¹ The followers of Pythagoras held that all things are derived from the harmony of numbers, and from the points and lines of mathematics.² The Stoics declared that the universe, endowed with wisdom and intelligence, made itself and all things, and moves, rules and directs the whole world; that the sun, moon and all stars, the earth and sea, are gods, as all these are in some manner intelligent; and that at last a time shall come when the world shall be destroyed by fire.³ Aristotle, on the contrary, affirmed that this world was without beginning, and is so perfect in itself that it cannot have an end.⁴ I must not omit mentioning the name of Xenophanes,⁵ who stated that the moon is inhabited, and that in it are many towns and mountains. Some other writers, as also the famous Roman orator,⁶ believed that there were people living at the opposite side of our earth, having their feet opposite to our feet, whence their name Antipodes.

IV. Although it is in some way departing from my subject, I will record the name of Hicetas (or Nicetas)⁷ of Syracuse, who has a claim to be more generally known and admired, because some centuries before the Christian era he perceived and declared that the daily motion of the sun, moon and stars around us is an optical illusion, and that our earth turning on her own axis with immense velocity causes the appearance of the revolution of the heavens. Nicolas Copernicus, in his preface to Pope Paul III., says, 'I have discovered in Cicero that Nicetas first perceived that the earth turns on its own axis. This was the occasion of my first turning my thoughts to the revolution of the earth.'⁸

¹ M. T. Cic. *Lucullus*, No. 37, *Alias Academicor.*

² Ibid.

³ Ibid.

⁴ Ibid. No. 38.

⁵ Ibid. No. 39.

⁶ Ibid. No. 39.

⁷ Ibid.

⁸ *Reperi apud Ciceronem, primum Nicetam sensisse terram moveri. Inde igitur occasionem nactus cœpi et ego de terræ mobilitate cogitare.* Anonymus.

V. To return to the subject. It would take too long for me to mention the fables of the old poets, both on the origin of man and of civil society; as also to repeat their tales about Orpheus, who with his harmony gathered out of the woods the wild tribes of men and led them to social life; and about Amphion, who by the sound of his harp moved the stones, and built the first towns.

That we may obtain some fair conception of the systems which were held by a great portion of the Greeks, followed by the ancient Romans, regarding the origin and nature of man, and of this universe and civil society, in accordance with the principles of Epicurus, whom Cicero reprobated in his philosophical works, but to whom he gave the name of a great philosopher, who stirred up not only Greece and Italy, but also barbarous countries: '*Philosophus nobilis a quo non solum Græcia et Italia, sed etiam omnis barbaria commota est*;' ¹ to this end I will quote here two remarkable passages, one from Horace, the other from Lucretius, both of the Epicurean school:—

'When living creatures first sprung up from the earth, a mute, ignoble herd, at first they fought with one another for acorns and for beds with their nails and their fists, then with clubs, and lastly with their weapons which experience had taught them to make; until they invented words and names, whereby they could express their thoughts and feelings and designate objects. At length, abstaining from war, they began to fortify castles, and made laws against thieves, murderers, adulterers &c.' ²

VI. Let us now read the Epicurean system in full from the pen of Lucretius ³:—

'It is certain that the primary elements of all things did

¹ *De Finib.* lib. ii. No. 15.

² *Horatii Serm.* lib. i. Sat. iii. lin. 98, et seq.

³ T. Lucretii, *Car. de Rer. Nat.* lib. v. ver. 420 et seq.

not unite together under any principle of order or mind ; nor did they act in concert amongst themselves on the movements to be effected ; but as they (the atoms) from infinite time were carried about in every direction by their own weight, and being brought into constant collision one with another, they, through a long succession of ages, tried every mode of combination. After so many attempts which proved unsuccessful, they ended at last with one destined to lead to a greater result, and to give birth to the earth and sea and the heavens and every kind of animals.¹ Then the earth ushered in the age of mortal beings ; because, the soil being penetrated with a superabundance of heat and humidity, wombs grew up from the roots of the earth, whenever a suitable place afforded opportunity. When the infants enclosed therein reached a period of maturity, Nature conveyed to them, through channels in the earth, a supply of juice similar to the milk which the female now gives to the child which she has brought forth. The earth gave food to its offsprings, the vapour wrapped them in its mantle : the rich, mossy herbage supplied a bed. With good reason, then, does the earth receive the appellation of our mother, since it is she who has created the human race.'

Here Lucretius, after stating that lions, foxes, stags, dogs, sheep, oxen &c., were given to the guardianship of man : '*Omnia sunt hominum tutulæ tradita, Memmi* ;'² goes on to say : 'That the men who sprung up from the bosom of the hard earth were altogether a hard race ; their frames were constructed of larger and more compact bones, and more powerful muscles and nerves, thus they were less sensible to heat and cold. They lived on coarse food, and knew no bodily sickness. In many periods of the sun's revolutions they led a

¹ Ibid., ver. 803 et seq.

² Memmius was a Roman nobleman to whom Lucretius dedicated his poem. Ibid. v. 923.

wandering life, like that of the beasts of the field. They knew not the art of lighting fire, nor that of dressing their food or of covering themselves with the skins of wild beasts. The fruits which the earth spontaneously bore under the influence of the sun and the rain, satisfied the cravings of hunger. They assuaged their thirst with water from the stream. They reposed beneath the acorn-bearing tree. The woods and the caves of the mountains gave them shelter; and when forced by the inclemency of the weather they laid their squalid limbs among the shrubs. They knew no bond of union, nor ties or relationship. They recognised no law. Whatever prey chance threw in the way of each one, that he seized upon, concerned only to provide for his own comfort and livelihood. Sexual intercourse followed in the woods, either in consequence of mutual inclination, or of the brute force of man, or in return for gifts, consisting of acorns, berries and pears. During this time men fought with wild beasts: sometimes they killed the beasts, sometimes they were torn in pieces. When night came upon them, they laid their naked limbs upon the ground, like the beasts of the forests, and covered themselves with branches and leaves.

‘In course of time they began to build huts, they learned to clothe themselves, and discovered the use of fire. Marriage was contracted between a man and a woman, and mutual fidelity was practised, and they learned to know their own offspring. Then human kind became milder in their manners, and a kind of civilised life began. Friendships sprung up and each had neighbouring possessions, none injuring or violating his neighbour’s right. . . . Nature had then taught them to express with their tongues different sounds, and utility affixed particular names to objects. . . . To suppose that one particular man assigned the names to every object, and that other men learned from him the first language, is absurd.’

The following reasons are added by Lucretius in support of

this assertion : 1. If one man be supposed capable of inventing the primitive language, we may imagine that other men possessed the same ability. 2. Because it cannot be supposed that this particular man had any means of making other men understand the meaning of the names invented by himself. 3. Even making this admission, this same man had no authority to compel others to adopt his language. The poet then adds :

‘Therefore as the brutes, though not endowed with speech, yet are led to utter different sounds in accordance with their varied sensations ; with a stronger reason we must maintain that mortals could apply particular names to particular objects.’

‘Kings then began to build towns and to erect castles for their own shelter and defence ; they portioned out lands and cattle to those of their people who were distinguished by their beauty, their bodily strength or their wisdom ; because beauty and strength of body were in the first age highly esteemed. Afterwards, property and gold began to be honoured, then beauty and strength were no longer in the same respect. Thus men aspired to become glorious and powerful, thinking to establish for themselves a lasting foundation, and to lead an undisturbed life in abundance of riches. In vain ! all aiming at the highest place stood opposed in the way of the advancement of one another ; and Envy, like a flash of lightning from on high, struck them down and hurled them contemptuously to dark Tartarus.¹ . . . Thus kings being slain, the ancient glory of thrones and the proud sceptres were brought to nought, and the insignia of crowned heads, stained with blood and trodden under foot by the people, lay dishonoured ; because that which was at first feared is now madly trampled upon. Hence, as everyone strove for the highest place and for supreme power, the commonwealth was reduced to the last state of confusion and perturbation. This was the cause why men learned to

¹ Ibid. ver. 1136.

appoint magistrates and make laws, and conform their lives to them,' &c.

As to the belief in a Supreme Being and the regard to religious worship, Lucretius states that it has its origin in the dreams of the night, and arises in part indeed from the order observed in the heavens, but still more from the dread caused by thunderbolts and lightning, as he had stated in a former book :—

‘Primus in orbe Deos fecit timor, ardua cœlo
Fulmina cum caderent.’

CHAPTER II.

OPINIONS OF SEVERAL MODERN WRITERS ON THE SAME SUBJECT.

I. WITH regard to the systems of modern writers, I hope nobody will expect that I should enumerate them all: it will be sufficient for me to give some account of the principal.

I presume that everyone is acquainted with the meaning of the term Pantheism derived from the Greek ($\pi\acute{\alpha}\nu$, omne, $\theta\epsilon\acute{o}\varsigma$, Deus, everything is God). The school of the Pantheists has two sections, the Materialist and the Idealist. The Materialist, in which the name of Spinoza is famous, as the restorer of the old Arabian system, which taught that the general material and existing nature is the only real God. The Idealist, to which the German names of Kant, Fichte, Schelling and Hegel, are more or less attached, holds this general principle, that everything depends on our own mind and conception; that self (ego) is the object and not self (non ego) is the subject; it being implied that self is above everything, nay is the centre, the principle, the source of all things: that Self is the Being itself independent and in every sense free. From that it is apparent that the Materialist and Idealist schools go hand in hand with Atheists, inasmuch as they deny implicitly the existence of God, His Divine Nature, and His attributes of Creator and infinite Ruler of all.

II. The name of Jean-Jacques Rousseau is well known. I cannot omit some account of his system. In his 'Contrat Social,' and particularly in his treatise 'Sur l'origine et les fondements de l'inégalité parmi les hommes,' he declares

that the natural state of man is the solitary life, apart from all society, in the forests; like the inferior of wild animals in his food, in his sexual intercourse, in all his instincts, without speech, without reason: that the said state of simple nature must have existed at first, though it has not been found by travellers anywhere, because the very savages discovered by these travellers have society in domestic life, they are surrounded by their wives and children, and generally obey some ruler-in-chief; that the understanding of a man and that of a beast does not differ in kind, but only in degree, more or less; that civilised man is a degenerate creature—that orang-outangs and monkeys may be the forefathers and progenitors of mankind, and that there is no sufficient reason to separate the brutes from man. The above and similar assertions of Rousseau are echoed by Cousin, Dameron, P. Leroux, and scores of other writers, and especially by G. Renaud.

III. The same Renaud, in his work¹ professes and also teaches that the first state of mankind was a savage life, brutal at first, then simply sensual, at last intelligent, so that man by natural development, without any extraneous aid, obtained the great faculty of thinking and speaking, and found the means of conducting himself through life, and thus constituted the moral and intellectual order, so that not only the truths pertaining to natural law, but God himself, are the invention of the wonderful mind of man.

Putting aside two Germans, Goethe and Oken, and others not differing very much from the ideas of Renaud, I shall limit myself to the systems of two well-known writers, G. B. Lemarck, who published his system in Paris in 1830, and Charles Darwin of our own days.

IV. Lemarck² admits the direct creation of some kind of

¹ *Terre et Ciel.*

² *Philosophie zoologique, ou exposition des considérations relatives à l'histoire naturelle des animaux.*

monad, hardly visible, but endowed with life in the sea. From these monads, by some spontaneous generation and development during an indefinite length of time, far beyond our appreciation, the whole of the organic world, plants and animals, came forth; proceeding gradually from the imperfect to the more perfect state, and this in accordance with the two following principles: 1st, the natural inclination to progressive advancement; 2nd, the efforts caused by external circumstances and their needs. 'Ainsi à cet égard les besoins seuls auront fait naître les efforts, et les organes propres aux articulations des sens se seront développés par leur emploi habituel;' and explaining his system, Lemarck says, that in accordance with the above two principles, man descends from the quadrumana through natural development. A number of the best kind of monkeys being under the necessity of defending themselves, were obliged to stand erect on their hind legs, and thus in time they acquired human feet; and consequently they had their exterior form and the internal organization of their bodies so as to become men. Then by continued efforts in their new developed form they gained the faculty of talking, at first in a confused manner, afterwards through the same efforts caused by their needs they spoke distinctly and by means of articulation. Lemarck having at considerable length explained his system without being able to adduce any real proof of it, tells us that the other not privileged monkeys fleeing to the woods and parting from the society of their changed companions, put themselves in other circumstances, and therefore we cannot see now any similar development in them.

V. I shall now quote the words of our famous English zoologist, Charles Darwin,² who with the great fund of his

¹ The famous naturalist Cuvier, hearing Lemarck unfolding his system exclaimed: 'Yes, yes, man formed his own nose by using his handkerchief.'

² *The Descent of Man*, &c. John Murray, Albemarle Street, 1871.

zoological learning, to a great extent follows the system of Lemarck. . . . But first I wish it to be observed that whatever objections may be raised against some portions of his system, Darwin has no association with the Atheistic School. He, with the highest intellects that have ever existed, clearly proclaims the existence of a Creator and Ruler of the Universe.¹ Now let us hear his system: 'We thus learn that man is descended from a hairy quadruped, furnished with a tail and pointed ears, probably arboreal in its habits and an inhabitant of the old world. This creature, if its whole structure had been examined by a naturalist, would have been classed amongst the quadrumana, as surely as would the common and still more ancient progenitor of the old and new world, monkeys.'² 'The quadrumana and all the higher mammals are probably derived from an ancient Marsupial animal, and this through a long line of diversified forms, either from some reptile-like or some amphibian-like creature, and this again, from some fish-like animal.' 'In the dim obscurity of the past, we can see that the early progenitor of all the vertebrata must have been an aquatic animal.' The greatest difficulty which presents itself when we are driven to the above conclusion on the origin of man, is the high standard of intellectual power and of moral disposition which he has attained. But every one who admits the general principle of evolution must see that the mental powers of the higher animals which are the same in kind with those of mankind, though so different in degree, are capable of advancement. A great stride in the development of the intellect will have followed as soon as, through a previous considerable advance, the half-art and half-instinct of language came into use: for the continued use of language will have reacted on the brain and produced an inherited effect, and this again will have reacted on the improvement of language.'³

¹ *The Descent of Man*, pt. I. ch. 2. ² *Ib.* pt. II. ch. 21. ³ *Ib.* pt. II. p. 390.

VI. Although the above summary in the very words of Mr. Darwin fully explains his system, yet I consider it advisable to quote a few other short passages from the same work which may explain some of his ideas more fully.

With Mr. Grattan he says, 'man has emerged from a state of barbarism within a comparatively recent period.'¹

'I had two distinct objects in view, firstly to show that species had not been separately created, and secondly that natural selection has been the chief agent of change.'²

After having said that 'the spiritual power cannot be compared and classed by naturalists,' he continues, 'the mental faculties of man and of the lower animals do not differ in kind, although immensely in degree. A difference in degree, however great, does not justify us in putting man in a distinct kingdom.'³

And he said before that 'it seems to him in a high degree probable . . . that any animal whatever, endowed with marked social instincts, would inevitably acquire a moral sense of conscience as soon as his intellectual powers had become as well developed or nearly as well developed as in man. . . . It is probable that the ape-like progenitors of man were likewise social. The difference in mind between man and the higher animals, great as it is, is certainly one of degree and not of kind.'⁴ . . . Reason, of which man boasts, may be found in an incipient or even sometimes in a well developed condition in the lower animals.' . . . 'In order that an ape like creature should have been transformed into man, it is necessary that his early form as well as many successive links should all have varied in mind and body. It is impossible to obtain direct evidence on this head.'⁵

¹ *The Descent of Man*, pt. I. ch. 3.

² *Ibid.* pt. I. ch. 4.

³ *Ibid.* pt. I. ch. 6.

⁴ *Ibid.* pt. I. ch. 3.

⁵ *Ibid.* pt. I. ch. 4.

CHAPTER III.

REMARKS ON THE OPINIONS ABOVE QUOTED.

I. I HAVE set forth the principal systems relating to the origin and nature of man, as they are described by ancient and modern writers, not with any intention of refuting them in all points which are opposed to the clearest truths. In my opinion it is not advisable to make war on the quiet fields of the metaphysical and natural sciences : inasmuch as the greatest number of the systems above quoted diverge so much from the commonly received ideas of learned men, that to expose them in their obvious bearing and meaning is to refute them : the sentence of condemnation which they bear impressed upon them is readily perceived by any one endowed with common sense and free from prejudiced opinions.

II. Now I only intend to make a few general remarks respecting them. First. All the above systems show the aberration of the minds of men, often men of genius and erudition, when confiding in themselves they do not adhere to the guidance of those general principles which are the foundations of true philosophy. For instance, that a Supreme Being, Creator and Ruler of all the world, exists, must be confessed by all, because there can be no effect without its proper cause ; and a perfect and constant order cannot exist in nature without a Ruling Mind. Yet Epicurus and many old and recent followers of him rather admit that all things came forth by chance than acknowledge a Creating and Ruling Power.

III. Against the above assertion, M. T. Cicero thus forcibly argues:—

‘Can, then, anybody be persuaded that little separated atoms, set in motion by their weight and fortuitously meeting together, should have made all this most perfect and beautiful world? Whosoever could think this possible, he in my opinion must also say that an innumerable quantity of the twenty-one letters of the alphabet, cast on the ground in a confused manner, may make the “Annals of Ennius” so that we be able to read them. . . . Now, if it be possible that the concurrence of atoms should have made the world, why, then, should not the same atoms make a porch, a temple, a house, or a town? These require less workmanship and are much easier made.’¹

‘Therefore I say that, from the beginning, the entire world was established by the providence of the gods, and is continually directed by them. There is nothing more excellent than the order of the world, therefore it is ruled by the will of the gods. . . . Nor is there anything more excellent than God; it therefore necessarily follows that He rules the world. Whence God is not subservient and subject to any nature; therefore *He rules all nature.*’²

IV. Second. I remark that many of the above systems contradict one another, which is strong evidence against them; because, out of many things contradictory to each other, if one of them is proved to be true, all others are necessarily false. Thus, if the true origin of man is immediately from the earth, and men and women sprung up from it and were at once human beings, as Lucretius and Epicurus taught; then it cannot be admitted as true that the first men came down from some heavenly abode into the earth, or that they were born from the mud of the Nile, or were descended from a

¹ *De Natura Deorum*, lib. ii. No. 37.

² *Ibid.* lib. ii. No. 30.

monad through myriads of years, improving by gradations to the most perfect species of monkey, as the *forefathers of man*. If any one of these last-named systems be admitted as the true one, then the others, together with the first, must be rejected as utterly false.

It is, moreover, to be remarked that, when any system is brought forward without any clear and substantial proofs, no one is bound to accept it; nay, speaking generally, every reasonable man is obliged to set it aside, till either evident or at least substantial proofs are brought forward in its support.

What, then, must be said respecting the whole of the said systems, many of which are in direct opposition to the clearest principles of reason and not confirmed by facts? For myself, if it were not for the esteem I entertain towards some modern zoologists, I should feel inclined to say that the physical sciences would sustain no loss if the not-proved systems were rolled into a bundle and consigned to fairyland to amuse children and lazy folks.

V. Third. In comparing the systems of the pagans with those of modern writers, though they differ in expression, yet I can clearly trace in modern writers the imitation of the pagan systems in many of the main points; so that in this, as in other things, it may be said with the Ecclesiast, 'There is nothing new under the sun.'¹ Those who in our days systematically deny the existence of a supreme Creator and Ruler are the imitators of those blind pagans who, using the names of many gods and goddesses, at the same time did not acknowledge a belief in any god, ascribing everything in nature to chance. The idealists of our own time must acknowledge that the ancient Indians derived from an idea the existence of beings according to the account of Buffon. Those who, at the present day, assert that the primordial condition of man was that of

¹ Chap. i. ver. 10.

a brute without civilisation, have for masters the fabulous writers of the old Epicurean school. That the articulate speech and the intellectual faculties of man are not a particular gift imparted to man by the gods, as Cicero said, but are a natural effect of efforts produced by the wants and circumstances of man, as is asserted by these new writers; this is again an echo of the teaching of many of the old pagans, illustrated in the old poem of Lucretius.

VI. Yet some statements are to be found in modern writers so absurd and extravagant, that they cannot be classed under the axiom, 'Nihil sub sole novum.' For instance, the proposition of Rousseau, that a civilised man is a degenerate being; and the following assertions of Darwin, that 'any animal, endowed with well-marked social instincts, would inevitably acquire a moral sense of conscience as soon as his intellectual powers had become as well developed, or nearly as well developed, as in man;' and that 'reason, . . . of which man boasts, may be found in an incipient, and even sometimes in a well-developed, condition in the lower animals.'¹ Rousseau considers then that the perfect state of man is that of being reduced to that primitive wild nature (imagined by him, but never discovered) in which man had no speech and no reason, and acted solely in accordance with the instincts of his sensual wants. . . . And our Darwin, whilst he truly admits that reason is the gift of which man boasts, yet tells us that beasts may be found possessing conscience, intellectual faculties and reason, sometimes even in a well-developed condition! If that most elegant writer of apologues in the time of the ancient Cæsars, Phædrus, were now alive, I imagine that we should certainly hear from him that some of his old friends, the beasts, are now in high feather, and have met together to pass a vote of thanks to Rousseau and Darwin: to the former,

¹ Loc. cit. pt. i. ch. 3.

because, by depriving man of intellect and reason, he has brought men down to their level; to the latter (Darwin), forasmuch as by his vast zoological authority he has elevated the lower animals above their sensual nature, and has made them partakers of the intellect and reason of man. In conclusion, I state that as I have not found in any old pagan system assertions so absurd as these here repeated, I must be allowed to class them among the new and hitherto unheard-of aberrations of unbridled minds.

CHAPTER IV.

THE FIRST PARENTS OF OUR HUMAN RACE WERE PRODUCED IN A PECULIAR MANNER, DIFFERENT FROM THE PRESENT LAW OF GENERATION.

I. In a series of generations in which the last born has his existence from the next preceding parents, and these from their next preceding progenitors, and so on, it must be admitted that it (the series) must have had its origin outside of the series of such generation. Because, as one of the greatest geniuses of the middle age argued: 'Whenever we speak of causes and effects, if there be not a first cause existing independently from the series, neither the last effect nor the middle effect could exist. And if it be supposed that the series is descended from an infinite line, without putting a first cause of it independent from the line, and from which the series should derive its origin; then neither the last nor the middle effects could exist.'¹ But this supposition is against facts, because we see the existing generation dependent one upon the other, and upon the past. This is self-evident.

II. It may be shown still more clearly by imagining a chain suspended, and descending from the centre of a room. We perceive that the last link is supported by the link next above, and this second by the one above, and so on; advancing thus we must arrive at either a beam to which the chain is attached, or to some support extraneous to the chain, other-

¹ S. Thom. Aq. *Sum. Theol.* p. i. q. 2, art. 3.

wise the chain could not remain suspended. This holds good also, supposing the chain to descend from an indefinite height, because the indefinite length of the chain cannot destroy the necessity of extraneous support. This simple reasoning, without additional proof, shows the truth of our proposition, that our first parents cannot be supposed to have been formed according to the law of our present generation; but they must have had their existence in a different manner.

III. And though it be admitted, for the sake of argument, that the body of the first man and woman, our progenitors, through natural metamorphosis, or transformations, were descended from some lower form of animals through insensible and indefinite gradations, going back to a first living monad; yet the conclusion above stated is not weakened—it has the same weighty application. For the supposed first monad, the origin of the long series of vertebratæ (from which, in the hypothesis illustrated by Darwin, men are supposed to come forth at last), must have had its origin from some other efficient cause extraneous to the series of the said transformations. This efficient cause, if it be supposed to be derived from some other previous being or beings, must lead us at last to a first cause or efficient principle, out of the series and independent of it, in order to avoid the absurdity of admitting that there are effects without their cause. Now, this first independent, efficient cause, to which the beginning of our generation is due, is what in general and common term is called God.

CHAPTER V.

IT MUST BE ADMITTED THAT MANKIND IS DESCENDED FROM
ONE PAIR.

I. In heading this chapter, we have intentionally limited the subject to mankind, namely, to *our* present race. I now proceed to state the reason of it. I assent to the proposition of the learned Father Weld, that 'nobody as yet has been able to prove undoubtedly that those human implements and bones, which have been dug up from the crust of the earth, or have been found in caves, belong to a period previous to the existence of Adam.'¹ The same accurate writer, in reviewing the arguments brought forward by modern writers to establish the pre-Adamitic antiquity of man, shows: 1. That among the objects excavated at the Delta of the Nile, which have been called works of pre-Adamitic men, there have been found Roman mosaics; and, at the depth of forty feet, a head sculptured in stone, of the time of the Ptolemies—an evident argument against the boasted antiquity. 2. That the annual deposition of the Nile, being at one time higher, at another lower, cannot furnish a ground for fixing the time at which the Obelisk of Heliopolis was constructed. 3. That the famous moulds of Ohio, where many depositions of soil took place, and forests have grown upon them, do not guarantee, according to Sir J. Lubbock, any more lengthened period than 3,000 years. 4. That with regard to the deposits of the Mississippi

¹ *The Month*, May and June, 1871.

and the sinking of the land near New Orleans, the former of which some geologists state could not have taken place in less than 100,000 years, and the latter in less than 50,000 years, the necessity of admitting that length of time is denied, as Colonel Willis, a proprietor of land near Natchez, on the same Mississippi, states that in less than sixty years a valley has been opened out near him seven miles long, and in some part sixty feet deep. 5. That with regard to the human cranium found in America, Sir John Lubbock is convinced that it can afford no proof that man existed in America in the ages of the mammoth and the mastodon. 6. That the same opinion has been given by Professor Wilson respecting the celebrated human fossils of Guadaloupe. And, finally, that the human bones and head found in the cave of Engis and Engihoul, near Liège, and in other places, furnish no proof of their existence before the time of Adam; as no one can say how far the activity of rivers, torrents, earthquakes, and volcanoes may have carried these very human bones and implements to and fro, and sunk them beneath the surface of the earth to a very prodigious depth.

II. Nevertheless, as there are several learned geologists who hold the opinion, that in the crust of our earth there are proofs that reasonable beings have existed long before the accepted epoch of the creation of Adam; on this account I have limited myself to our present race, when I stated that all mankind are descended from a single pair. For if it be proved geologically, that rational beings existed on the face of this earth at its earliest epochs corresponding to its primitive strata, and its primitive plants and animals, which by themselves witness to their existence perhaps many thousands of centuries before the creation of Adam; this, in my opinion, might be readily granted without any contradiction to the fact, that our present race began about the period recorded in Scripture. Granting the hypothesis, we might say that those

bones and implements belonged to some previous races of other kinds of rational beings, who existed and perished before the time of existing man.

III. This supposition cannot alarm believers in the book of Genesis, because propositions or systems which are not condemned in the Bible cannot be considered as opposed to the Bible. The Bible is given to us, the descendants of Adam; and if it does not reveal anything of other generations which may have preceded ours, that is very natural, as we have no concern with them. Besides, revelation is given to men to direct their minds and actions to attain the end of their creation, and not to satisfy their curiosity about physical truths of our visible world, 'which are left to the contemplation and study of man.'¹

IV. We shall return to this argument towards the end of this treatise. For the present I only observe, that the Bible says nothing of the possible existence of living beings in the planets, though by analogy we may argue that it is possible, or even probable, that some kind of living and intelligent beings may exist in some at least of the planets, which, like ours, move round our common centre, the sun. This opinion also cannot be considered contrary to the Bible, although it is not in the least hinted at in the Bible.

VI. Having now explained the reason of the limitation put on the subject of this chapter, we must come to demonstrate more closely that we are bound to admit that the present race is descended from one man and one woman. Whatever may be the correct definition of the word 'species,'² everyone who has thoroughly studied the characteristic marks of the various

¹ Eccles. iii. 11.

² E. C. Prichard, M.D., in his *Natural History of Man*, London, 1855, book i. ch. 3, quotes Cuvier's definition of the name *Species*.—"The succession of individuals which propagate and perpetuate themselves. "La succession des individus qui se reproduisent et se perpétuent."

peoples of the world, admits that all these varied races of men belong to one species alone. Against this conclusion many objections have been raised, derived from the variety of the hair, of the colour, and of the exterior form in the different races of men. These, by Voltaire (with his usual boldness), are called races entirely distinct: 'sont des races entièrement distinctes ;'¹ but nothing can withstand the evidence of facts. Dr. Prichard² amongst other diligent enquiries after truth, instituted a very rigorous analysis of the hair of a negro, a mulatto, of Europeans, and of some Abyssians. Under a microscope magnifying 400 times, he discovered that the hair of mulattoes, Abyssinians, and negroes is not woolly, as it is commonly believed, but it is identical with that of Europeans; each kind being cylindriciform and tubular, differing only in the colouring matter which more or less fills the tubes. With regard to the fact that the hair of negroes is more curled and frizzled, Dr. Prichard says, that it is only a difference in the degree of crispation—some European hair being likewise very crisp—and concludes that also on the supposition, that the hair of negroes be not really hair, but fine wool, still this would by no means prove the negro to be a peculiar and separated stock; since we know that some kinds of animals bear wool, while others of the same species are covered with hair.

VII. With regard to the colour of the skin, Cuvier, after many careful anatomical examinations of the skin of the negroes, found that they possess the same natural elements as those of white men; except that between the epidermis (the exterior skin) and the dermis (the inner skin) of negroes there is a gelatinous deposit, which gives them their dark appearance. This is confirmed by Dr. G. Latham, in a note of the editor of Dr. Prichard.³ According to the evidence of

¹ Voltaire, *Hist. de Russie*, 'Pierre le Grand,' ch. i.

² Loc. cit. ch. xi.

³ Book i. ch. 10.

Dr. Latham, the rete mucosum is no separate layer at all, but a part of the epidermis. . . . It exists equally in the white and dark families; in the latter, however, there is a deposit of colouring matter in the cells. It belongs to the epidermis, of which it is the innermost layer, lying immediately upon the dermis. I must not omit to remark, with Dr. Prichard¹ and Dr. Simon, that the abnormal colouration of the skin often seen amongst Europeans is derived from the pigment which is introduced into the cells under the epidermis: as, for instance, the pigmental *nævi materni*, the *aureolæ mammarum*, the summer freckles, &c. In addition to this Dr. Prichard observes, that the change of the colour of the skin may take place independently of the influence of the solar heat, and in connection with the state of the constitution of the individual; and, that the colouring matter is liable to disappear by absorption in skins to which it is natural. Instances are not unfrequently observed in different countries, in which negroes lose naturally their black colour, and become as white as Europeans. The same doctor quotes in a note, the fact of a French woman, whose abdomen became entirely black during pregnancy; and of a female of rank of a white complexion, who, whenever she became pregnant, began immediately to grow brown, and towards the end of her gestation she became a *veritable negress* (Camber). There is also mentioned a case of a white man, who, after a fever, became as black as a negro.

VIII. It will not be out of place, and I trust not distasteful to the reader, to give the description of a very remarkable appearance of the skin of an Englishman, and his children and grandchildren. The correctness of the details is guaranteed by Mr. John Machin, by Mr. Parker,² and by Dr. Tilesius, in a volume published on this subject in the German language.³

¹ Loc. cit.

² *Philosophical Transactions*, vol. xxxvii. 1731, and vol. xlix. 1755. ³ 1802.

The family name was Lambert, the place of their birth Euston Hall, Suffolk. The old Lambert exhibited his son to the public the first time in 1731. This latter, when forty years old, exhibited himself again with one of his six children (the five other children, who had the same exterior marks, had died previously), and this last-mentioned boy, who was eight years old when he was seen by Mr. Parker, became afterwards gamekeeper to Lord Huntingfield, and had two male children with the same excrescences on their skin as their father and grandfather. The two boys were exhibited in Germany by a Mr. Joannis, who assured the public that they belonged to a new race of men found in New Holland, or some other remote place. I append here the description of this family, surnamed the *porcupine family*, from the pen of Dr. Tilesius, which is substantially the same as that given in the 'Philosophical Transactions,' by Mr. Machin and Mr. Parker.

The whole body, except the palms of the hands, the soles of the feet and the face, nine weeks after birth, was covered with an abundance of excrescences of a horny nature, reddish brown, hard and elastic, about half an inch long, and grating one against the other, and making a rustling noise when rubbed by the hand. The appearance of this remarkable integument, such as is represented in plates in the 'Philosophical Transactions,' and by Dr. Tilesius, may be compared to clusters of basaltic prisms, some longer than others, as we see them grouped in nature. Every year these horny excrescences fell off, and their fall was always accompanied with indisposition; they also were influenced by the action of mercury, which was tried for this end; but in either case they all returned in a very short time. The conclusion that Mr. Parker draws from this extraordinary phenomenon is this: 'It appears therefore, beyond all doubt, that a race of people may be propagated by this man, having the same rugged coats and

coverings as himself; and if this should ever happen, and the accidental original be forgotten, it is not improbable they might be deemed a different species of mankind.' All these observations and facts lead us to think that the black skin of the negro, and many other peculiarities of the same nature in different families, may be due originally to some accidental cause.

IX. The variety in the shape of some parts of the body in various races is another evident fact, which confirms that old proverb—Unity in variety—Unity in species, Variety in the peculiarities of individuals.

Dr. Prichard,¹ after saying that the prevailing form or configuration of the body is more liable to be influenced by the habits of different races and their manner of living, than by the simple agencies of climate—without pretending to make the observation as one which holds without many exceptions—states that there are in mankind three principal varieties in the form of the head and other physical varieties. First, a form of a head having a prolongation or extension forward of the jaws, prevalent amongst the rudest tribes of man, hunters and savages, dependent for their supply of food on the accidental produce of the earth or the chase, as the most degraded of the African nations and the Australian savages. Second: broad and lozenge-formed faces and pyramidal skulls, which belong principally to the Nomadic races, who wander with their flocks, and to the tribes along the shores of the icy sea, who live by fishing and on the flesh of their reindeer—the Esquimaux, the Laplanders, Samoiedes, and Kamtschatskans. The Mongolians, Tungusians, the Nomadic races or Turks, and the Hottentots belong to this department. Third: a shape of head different from the two, and a skull oval or elliptical, common to the most civilised nations of Europe and Asia. Dr. Prichard remarks that there is no re-

¹ Loc. cit. ch. 12.

semblance between the cranium properly so called of any tribe of men, and the cranium of any species of monkeys. Prichard adds, 'that it is not fair to compare the bony apparatus of the inferior animals with that of man, when the bones are not fully developed;' and having enumerated some other differences observed in other tribes of mankind, thus concludes: 'None of the differences in question exceed the limits of individual variety, or are greater than the diversities found within the circle of one nation or family. The varieties of form in human races are by no means so considerable in many points of view as the instances of variation which are known to occur in different tribes of animals belonging to the same stock.'¹

X. An additional proof that all the different races of men belong to a single species, is furnished by the Egyptian mummies, which are 2,000 or 3,000 years old. Cuvier, who with Lacépède and Lamarck, examined them with great accuracy, testifies² that there is no remarkable difference to be found between the mummies of human bodies of that time and those of our own times; as also no specific difference could be discovered between the mummies of oxen, dogs, and cats, and those of our own day. May I be allowed to make this remark, that the evidence of 3,000 years and more in natural facts, is a better foundation for sound reasoning, than tens of thousands of centuries imagined by some anthropologists in order to shelter, under the obscurity of the unknown past, their new suppositions that we sprang from some lower animals, through many insensible changes of species.

XI. I shall now quote some statements of Mr. Darwin, whose authority in physical facts is pre-eminent. In part i. ch. 7 of his work on the 'Descent of Man,' he supposes a naturalist inquiring, 'Whether the forms of man kept distinct like ordinary species, when mingled together in large numbers

¹ Book i. ch. 14.

² *Annal des Musées d'Histoire naturelle*, tom. i.

in the same country; he (the naturalist) would immediately discover that this was by no means the case.' For the following reasons: 1st, 'Because there are Negroes and Portuguese united in Brazil, in Chili, and in many other parts of South America; as also Spaniards and Indians mixed in various degrees; and also Black men united with Indians and Europeans; and, in a small isle of the Pacific, Polynesians mingled with English blood.' And besides, 'in the Viti Archipelago, a population of Polynesians and Negritos crossed in all degrees.' 2nd, 'Because distinctive character of every race of men is highly variable. . . . Savages, even within the limits of the same tribe, are not nearly so uniform in appearance as has often been said. In the several American tribes, colour and hairiness differ considerably; as does . . . the shape of the features . . . in the negroes of Africa. The shape of the skull varies much in some races, and so it is in every other character.' 3rd, 'But the most weighty of all the arguments against treating the races of man as distinct species is, that they graduate into each other independently, in many cases, as far as we can judge, of their having intercrossed.'

After these Darwinian statements, which are fully in accordance with the proofs related above, and which might be confirmed by many other anthropological facts, taken from the similarity of the interior organs of the bodies of different races of men, the similarity in the duration of their lives, the similar number of months of gestation of children, &c., I hope that I shall be allowed to conclude with the same words, but not with the same meaning as Mr. Darwin, that 'all the races of men are descended from a single primitive stock,' namely, I say, from one man and one woman.

XII. After the above exposition of reasons and facts, it appears clearly how untenable is the opinion of the polygenists, who suppose that we are descended from many original couples of parents; and, at the same time, from the

proved unity of our human species, by logical conclusion, it follows that our human family has been derived from a single couple of parents; as it is not philosophical to admit that nature does anything uselessly, and it would have been a useless work of nature to make many original couples of parents to constitute a single species. This conclusion is in accordance with the traditions common amongst the most ancient nations; where we find records more or less clear, but still undisputed, respecting Adam as the forefather of the human race. Besides, this is proclaimed by St. Paul in his eloquent address to the learned assembly of the Areopagus in Athens, when he said that 'God hath made of *one* all mankind to dwell upon all the face of the earth.'¹

¹ Acts xvii. 24-26. Deus fecit ex uno omne genus hominum inhabitare super universam faciem terræ.

CHAPTER VI.

THE SAME ARGUMENT CONTINUED.

BEFORE entering upon a new subject, I think it advisable to dispose of some assertions which, from the records of ancient nations, are adduced against the truths already established. The Chinese, the Chaldees, the Indians, and the Egyptians are said to possess documents proving their existence very long before the time assigned to the appearance of Adam. I am ready to show that this is not the fact.

I. Respecting the antiquity of the Chinese, it was stated that China, the Celestial Empire, was flourishing and glorious at least four thousand five hundred years before the Christian era; and Chinese astronomical observations are produced to demonstrate that China was a mighty nation from time immemorial. Now, in accordance with the famous axiom of Cicero, that false opinions are obliterated in the lapse of time—‘*Opinionum commenta delet dies*’—Chinese historians,¹ with a full knowledge of their own annals and with praiseworthy candour, have confuted the old assertions. They hardly think themselves authorised to affirm that Jao existed in the year two thousand two hundred and forty-five before the Christian era. In fact they state that, within a thousand years of that epoch, namely, the year one thousand four hundred and one before

¹ Klaproth, *Crédibilité des Historiens asiatiques. Mémoires ann.* tom. iv. Windishmann, *De la Philosophie dans le développement de l'histoire. Précis de la Géographie universelle*, par Maltebrun.

Christ, Chinese rulers migrated from one province to another, with their people, like nomads; and that, at the time of Confucius, five hundred and fifty years before Christ, all the southern part of China was an uninhabited desert. They also state that their astronomical observations, if genuine, do not date further back than one thousand one hundred years before Christ, which simply might prove that there was then in China a school or tribe of studious men who noted the movements of the planets. These old astronomical observations, four hundred years later, namely, seven hundred and twenty-two years before Christ, were found incorrect. Besides, within the last two centuries or thereabouts, Father Mathew Ricci, who was admitted amongst the mandarins of China, discovered and corrected other errors in the Chinese calendar, and prescribed surer methods of taking astronomical observations. After this Father Amiot¹ observes, that even allowing that the Chinese were a nation of some kind in the year three thousand four hundred and sixty-two before Christ, that would not give them a pre-Adamitic existence; for this epoch, more or less, corresponds to the year two hundred and fifty-four after the Flood described by Moses.

II. I come now to the antiquity of the Chaldees. If we give credit to a Chaldean writer, they were a flourishing nation four hundred and thirty thousand years previous to his time. But no lover of truth places any faith in Berosus; all his accounts abound in exaggeration, contradictions, and fables, which is the case with the above assertion, being devoid of proof, stated on his own authority; which, in an historical point of view, really amounts to nothing. The only criterion left by profane history to posterity to judge of the first civil existence of that once populous nation, might be taken from their astronomical tables; but these also, by Cuvier and others, were found so uncertain and confused as

¹ *Mémoire de Cinois. Lettre.*

to furnish no certain data to reckon upon.¹ We are told by Voltaire that the famous philosopher and instructor of Alexander the Great possessed tables of astronomical observations, brought to him from Babylon by Callisthenes, in which tables there were notes going back to one thousand nine hundred and three years. Now, reckoning that Aristotle flourished about three hundred and thirty years before Christ, and adding these dates together, we have in round numbers two thousand two hundred and thirty years before the Christian era as the approximate time of the first beginning of the Chaldean observations brought to Greece. But this epoch of years coincided approximately with the four hundredth year after the foundation of Babylon by Nimrod or Belus. Consequently this is no argument in favour of the fabulous antiquity of the Chaldees. Though this conclusion is more than sufficient to prove my assertion, I will add two remarks: first, that Aristotle, in his four books on the heavens, makes no mention of the astronomical tables referred to by Voltaire; and, secondly, that Pliny,² quoting Epigonus as a credible author (*auctor gravis*), says that the whole series of the Chaldean astronomical tables comprehended seven hundred and twenty years only.

III. In the third place, we have named the Indians. About their vaunted antiquity, it will suffice to quote the learned Ritter, famous for his knowledge of Oriental languages; and after him Heeren and M. E. Burnouf.³ After diligent researches and profound studies made by them, they have discovered that the Indian books spoken of as crediting the Hindoos with an antiquity exceeding all other profane or sacred records, are undoubtedly of epochs subsequent to the existence of the Pentateuch; that all the said books contain evident alterations made in recent time, and that in the old

¹ *Philos. de l'Histoire.*

² Plin. lib. viii. ch. 57.

³ See Mr. Guigniot, *Asia Polyglotta.*

Sanscrit documents there is a chaos of confusion between the old and new writings; so that nothing can be clearly discovered there, except such parts as are evidently modern. These same learned men include the books of the Brahmins and of the Buddhists in the judgment they have arrived at, because they find that they are no more worthy of reliance than the other Indian records; though the books containing the religion of Buddah are one hundred and eight in number, huge and heavy, so that they can only be carried about on the backs of camels. The number and bulk of these mighty volumes may only impose on ignorant minds accustomed to judge by appearances.

IV. It remains now that we speak of the Egyptians. But from what we shall state it will be evident that their claim to hundreds of thousands of years of existence before the Christian era is a fictitious forgery of that clever nation. In fact, all the fragments we possess of the old Egyptian epochs and facts are a tissue of fables, bearing within themselves their own refutation. Solon,¹ in the year five hundred and fifty before Christ, stated that the Egyptians affirmed that Thebes was built by Minerva, nine hundred thousand years before their annals were written. The priests of Memphis, a century later, told Herodotus, that Menes was the first king of Egypt, that he built Memphis, and that one thousand three hundred and forty years after Menes' time there were three hundred and forty-one kings, three hundred and forty-one chief priests, and three hundred and forty-one generations; and that during the said epoch the sun rose up twice from the west.² They said, besides, that before the generation of the priests, who were represented in one hundred and forty-five immense blocks of carved wood, the gods were the rulers of the people. Some other Egyptians assured Herodotus that

¹ *Tim. et Creteas* in Plato.

² Herod. *Euterpe*, ch. xlix. and cxliii.

they possessed annals containing records of seventeen thousand years from the time of Hercules, and fifteen thousand years from Bacchus, and that Pan existed in Egypt previous to this. Two centuries after Herodotus, Ptolemy Philadelphus, in the year two hundred and sixty before Christ, ordered Meneton to write the history of Egypt. Meneton said many things not mentioned by Solon or Herodotus: for instance, that Egypt was under the rule of a son of the second Hercules, named Agathodæmon; and that there existed two columns, built previous to the flood; that Vulcan, a god, reigned in Egypt nine thousand years; and that the semi-gods reigned, as kings, one thousand nine hundred and eighty-five years &c. &c. I might continue quoting more recent historians, Eusebius, Julius Africanus, Joseph the Jew, Diodorus Siculus, and others, who, speaking of the Egyptian epochs and facts, do not agree amongst themselves nor with the old historians; as also the old historians are often at variance with each other. Germanicus, the nephew of the emperor Tiberius, when in Egypt, heard no mention of the same histories, except the enterprises of Rameses the Conqueror.

V. Turning from the confusion of historians, let us fix our eyes on the astronomical records of the Egyptians, if we be fortunate enough to glean from them some approximate data of their first appearance. But neither from this source can we gather much information respecting their antiquity. It is true that Macrobius¹ gives to the Egyptians the knowledge of the annual period of the sun (namely of the annual orbit of our earth round the sun), and says that the Egyptian astronomers knew from olden time that the annual solar period comprehends three hundred and sixty-five days and six hours; which if granted would bring the civilisation of Egypt thousands of years back; because such a discovery would

¹ *Saturn*, lib. I. ch. 15.

require very long and accurate observations. But these assertions of Macrobius cannot be received as true. The correction of the calendar took place under Julius Cæsar before Macrobius' time. The Egyptians must have received the advantage of this correction, which added six hours to the three hundred and sixty-five days previously assigned to the year. Macrobius, knowing the fact that at his time the Egyptians counted the six additional hours in the year, imagined that they had counted them in ancient time, and made his erroneous statement. That the Egyptians had in their year three hundred and sixty-five days only is asserted by Herodotus;¹ it was asserted by Thales, who visited Egypt before Herodotus; and the Jews, who when they went out from Egypt about one thousand five hundred years before Christ, took with them no other division of the year than the twelve lunar months. This is confirmed also by the narrative that Cecrops, who migrated from Egypt and founded Athens, gave to the Greeks for the length of their year three hundred and sixty-five days only.²

VI. Before concluding this subject I must touch upon another evidence against the assertors of the exaggerated antiquity of the old nations. At the commencement of this century there was great excitement in the literary world. Two Zodiacs were discovered painted on the walls of two temples in two old Egyptian towns, Denderah and Hesne. It was said that these zodiacs were upwards of fifteen thousand years old, and consequently these would prove at least a like antiquity in favour of the civilisation of the Egyptians, and would have established their existence long before the appearance of Adam.

Now, setting aside some particular remarks about the num-

¹ *Euterpe*, ch. iv.

² Cuvier, *Discours sur la Révol. etc.*; La Place, *Exposition du Système d Monde*. Paris, 1815.

ber of the constellations, the state of preservation and the style of these zodiacs, which sufficiently demonstrated that the alleged antiquity could not be maintained, I only observe that the celebrated Champolion and the archæologist Letronne,¹ on reading the inscriptions on the very walls on which these zodiacs were painted, found that the temple of Denderah was erected under Tiberius, and that of Hesne under Antoninus, Roman Emperors namely, from the year fifty-seven to the year one hundred and forty-seven after Christ. From what has been stated the reader will conclude that the history of the old nations cannot disprove the approximative epoch already established in the preceding chapter of the first origin of man.

¹ *Recherches pour servir à l'histoire de l'Egypte, etc.* Paris. 1824.

CHAPTER VII.

THE FIRST DEVELOPMENT OF OUR SPEECH AND REASON IS SIMPLY
AND SOLELY DUE TO SOCIAL TEACHING.

I. THE very important subject of this chapter induces me to explain the precise meaning intended to be conveyed by the words herein expressed, in order to avoid any misunderstanding.

1. When I say *first development* I presuppose the existence of the natural faculties of reason and speech in the soul of man ; they are attributes inseparable from and innate in his soul. I mean that these two faculties of the soul are brought into action at first by and through social teaching alone. A man already taught to speak and think may improve himself without extraneous aid ; but the first development of these faculties is obtained (as I am ready to prove) solely through social teaching. 2. By *speech* I simply mean the innate power of man to express his thoughts by vocal or articulate words, or by other equivalent exterior artificial signs. Be it then understood that I exclude from the term speech all those natural sounds which are uttered instinctively by inferior animals and sometimes also by man. I consider it a great abuse to give the name of speech to the barking of dogs, the mewing of cats, the bleating of lambs, the braying of the ass, the neighing of the horse, and the roaring of the lion. 3. By *reason* I mean the power of the intellectual faculty in the soul of man, by which he deduces one proposition from another and proceeds from premises to consequences. Thus, when we see a running stream we conclude that it must have its source. When we

reasons as follows : every man is mortal ; I am a man, therefore I am mortal. 4. By *simply and solely due* I intend to say that the first development of our speech and reason is derived exclusively from the teaching of society. Therefore, I absolutely exclude every other means of development imagined by systematic writers, but opposed to the facts shortly to be adduced. 5. By the term *social teaching*, I mean to say that every human being, in order to attain the first development of his faculties of speech and reason, must have some kind of instruction by others, who have already acquired that development. Therefore, I imply that without social instruction the innate faculties of speech and reason in man would remain always undeveloped, like a seed dormant underground.

II. Having explained the meaning implied in the words of the heading of this Chapter, I must now proceed to prove the assertion. I perfectly agree with that distinguished class of philosophers who (on the ground that in rational philosophy nothing is to be admitted as certain which is not confirmed by evident reasons or undoubted facts), give a flat denial to the assertion that there are naturally impressed on our souls some general ideas about virtue and vice, right and wrong, justice and injustice, moral laws, the existence of a Supreme Creator &c. The promoters of this system call these ideas *innated*, viz., born with, and impressed on, human souls, like the print of a seal on wax. This assertion is not only devoid of proof, it is contrary to the best ascertained observations and evident facts, as we shall see shortly. I am glad to find the same decided opinion expressed by Mr. Darwin¹ in these words : 'It is . . . impossible . . . to maintain that this belief (in God) is innate or instinctive in man.' The leader of the peripatetic school (which numbered in its ranks the greatest geniuses for many centuries) held this fixed principle, that the

¹ Loc. cit. p. ii. ch. 21.

human intellect is at first like a bare tablet on which nothing is written.¹ (In principio est sicut tabula rasa, in qua nihil est scriptum.)

III. But whilst denying the existence of any knowledge or perception or idea naturally impressed on the soul of man, we acknowledge at the same time that our soul must have in itself some inclinations or dispositions or faculties innate, viz. naturally born with it; these innate faculties by Aristotle are called *powers* or *capabilities*, relating to intelligible objects. 'Intellectus humanus est in potentia respectu intelligibilia.' In fact, if man had not in his nature a similar capability for reason and speech, he could not possibly reason or speak, notwithstanding every effort made to that end. This power and natural capability of man to reason and speak constitutes the essential and specific distinction between himself and the lower animals, which are therefore styled irrational.

IV. Now admitting as certain that man has not any innate ideas, and that he possesses a natural capability of acquiring the necessary development of his innate faculties of speaking and reasoning, we must see by what means he attains the actual exercise of these faculties. We must not proceed in this inquiry with ideal systems, which may be denied with the same boldness with which they are asserted by their authors: the state of nature without speech and reason, in which mankind is supposed to have existed at first, is a state which never was found or seen: it existed only in the minds of its inventors. 'The necessity which obliged the child to be a long while with its parents, created the society in the midst of a wilderness,' as Bouffon very wisely observed.² Let us now proceed to the sure method of observations derived from facts.

V. General and undeniable facts prove that human speech

¹ Aristotle *apud D. Th.*, part 1, quest. 79, art. 2.

² *Nat. Hist. de Quadруп.* tom. viii.

and reason have always been developed through social instruction, although in greater or less degree. Noticing how human speech and reason are at first developed in infancy, we find that an infant is born in the bosom of a family, which is a private society. The voice of his mother or his nurse sounds continually in his ears. Advancing in age he commences to repeat, at first imperfectly, afterwards more and more clearly, the words of his mother. With the words he insensibly but steadily learns their meaning, and conceives the idea attached to each word he has learned ; and daily his speech as well as his reason is developed. The language of people surrounding the child becomes his own language. Their train of reasoning he copies ; he gradually acquires not only the language, but also the ideas, the feelings and the judgments, good or bad, of the society amongst which he lives. By way of illustration, I will relate here a scene which I witnessed about twenty-five years ago in a Corsican village between Bastia and Ajaccio. I saw a boy under two years old entering the room where I was taking some refreshment ; he was covered with mud, and crying loudly ; a middle-aged woman followed the child, and asked him who had dirtied him thus. The little fellow, overcome by his sobs, could not answer. In the meantime, the woman changed his soiled clothes, and put on him a nice clean shirt ; she repeatedly asked him the name of the person who splashed him. At last, the child recovering his gaiety, uttered some name. The woman said : ‘ And you, what did you say to him ? what did you do to him ? As the child shed tears again and answered nothing, the woman said : ‘ you should have told him that you will kill him when you grow up : that you will shoot him dead with a gun.’ As the little child gave her no answer, the woman retained him, pressed him to repeat the same words, and only released him after the child, with little trembling lips, had said, ‘ I’ll kill him, I’ll kill him.’ From this scene I concluded that the spirit of cruel vengeance in the

Corsican of that period, was infused by the teaching and example of the surrounding society. It is true that a time will come when the child, grown into manhood, will be a moral being, and will guide at his own free will, his speech, his reason, and his actions. Yet the first development of his mental faculties is solely due to society, by which he receives his earliest training.

VI. The same conclusion is fully confirmed by observing that human speech and reason never had their development when *social instruction* has been totally wanting. The infant left without any social instruction for years, will not speak or show any sign of reasoning; he will be guided entirely by natural instincts; these in man are less marked than in the brute creation; at the onset of his life he possesses hardly any other instinct but that of crying: on this account he is more miserable than inferior animals, if not aided by society. The remarkable fact of a youth born in Chartres, related in the 'Histoire de l'Académie royale des Sciences,'¹ I will adduce as my first proof. Born deaf and dumb, he continued in that state without any education till he was twenty-three years old. It happened at that age, that some water came out from his right ear, and he acquired the natural faculty of hearing. He passed three months after this without speaking, only listening to the words pronounced by the family, pointing out the objects to which the words corresponded. At last he made his first effort, and gave them to understand by some not very clear expressions, that he was able to hear and to speak. After some time mingling with society he succeeded in speaking well, and in developing his reason. This fact coming to the ears of some learned men, they called upon him and asked him many questions respecting his previous state of deafness. Before giving his answers, I ought to mention that

¹ Ann. 1703.

this young man was born of Catholic parents ; during the past years he went regularly to church, assisted at mass, signed himself with the cross, knelt down at prayers and gave exterior marks of devotion like others around him. The questions put to him were as follows : Had he then any idea of a 'Supreme Being ?' of his having a soul ? of the goodness or depravity of human actions ? &c. His answer to the above and other similar questions was simply this : that he never raised his thoughts so high ; that in his religious practices, he had no intention of any kind, as he knew not their meaning ; that he did not understand what death was ; as he had no idea about it ; and in conclusion that he led his life only in accordance with the impression of his senses ; that is, he led an animal life. In the report of this case, it is stated that this young man afterwards displayed considerable intellectual powers, which could not receive their development during his deafness, when deprived of social instruction.

VII. Other proofs in confirmation of this subject are afforded to us by the most experienced instructors of the deaf and mutes. They tell us what was the state of the mind of their pupils before instruction ; their joint authority is a compilation of many thousand facts. The Abbé Lépée was the first in France to establish a fixed method for instructing the deaf and dumb. He in his work says : 'The deaf and dumb are in some way reduced to the condition of beasts, as long as they are not properly instructed.'¹ The Abbé Sicaud, the worthy successor of Abbé Lépée, says : 'The deaf and mute is a solitary being in nature without any possible exercise of his intellectual faculties, which in him are without action and life so long as some beneficent hand has not succeeded in awakening him from the sleep of death ; in relation to morality, he has not the least suspicion that morality exists. All the morality of this solitary

¹ *La véritable manière d'instruire les sourds et muets.* Paris, 1784.

being consists in obeying with impetuosity all his natural impulses, in fulfilling all his sensual appetites, and in getting enraged at every opposition he cannot perceive anything beyond this physical world he looks at every object with indifference virtue and vice have no reality in his apprehension this is the true description of the deaf and dumb in his natural state, in accordance with all the observations which I have made whilst living with him.'¹ The Abbé Salvan,² another successor of the Abbé Lepée, likewise affirms that after his long experience in the institution, he was convinced that the deaf and dumb have not the least idea that a Supreme Being exists; that they do not know the difference between good and bad actions; that it requires a very great effort, both in the teacher and the pupil, to pass from the material and sensible to the moral and spiritual region; but that the satisfaction and enjoyment of both is immense when the difficulty is overcome, and the pupil shows that he understands that an Almighty, Perfect, Just, Eternal Creator of all things exists &c. The Abbé then concludes by saying: 'After this the deaf and mute ceases to be, what he was hitherto, a mere puppet of imitation.'

Monsieur Paulmiere, instructor in the Parisian School, says in a letter: 'The deaf and dumb without education is doubly deaf; deaf in his material ears and in his intellectual understanding; being deeply buried in the darkness of ignorance.'³ Monsieur Berthier, himself deaf and dumb, who, on account of his extraordinary ability after being educated, was made a professor in the Parisian Institution, in one of his letters confesses: 'A deaf and dumb without education never will acquire any, even the most confused, idea of a Supreme Being, to whom we owe obedience and love, and to whom we must

¹ *Cours d'instruction d'un sourd-muet de naissance.* Paris, 1803.

² *L'Univers*, Oct. 28, 1838.

³ *Gazette des Tribunaux*, May 18, 1825.

give an account of our thoughts and actions.' The same truth is confirmed by the Abbé Goudelin, professor in the school for the deaf and dumb in Bordeaux. In one of his letters he states that he never found any of his pupils with the least knowledge of God before instruction, that he always questioned them afterwards on this point, and that he always received the same negative answer, even by those who, following the example of their parents, were accustomed to practise the exterior forms of religion.

VIII. In order to confirm still more this important point I will now proceed to quote the statements of professors out of France. M. Guyot¹ from his own experience ascertained that the deaf and mute, if left to himself, is naturally deprived of the use of reason . . . that he will be for ever an infant except that he is stronger, and that his natural inclinations without law and restraint are more violent: which make him much more like a beast than a man. The same statement is made by Mr. Eschke, the founder and professor of the School of Berlin. 'The deaf and mute lives for himself alone, he does not know any social tie; nor has he any idea of virtue. Education alone can raise him from his brutal state and ennoble his being.'² Mr. Amman, the instructor of some deaf and dumb at Amsterdam, exclaims: 'How great stupidity we see in these miserable beings! How little they differ from beasts!'³ Mr. H. Cesar, Leipsic, says, 'The deaf and mutes have the human form, but this is nearly all 'they have in common with other men; deprived of speech, they are equally deprived of any intercourse of reason with man. They are also deprived of the practice of social virtues. They cannot elevate themselves from the sensual materialism to the spirituality of intelligence. On account of their inertness they

¹ *Dissertatio juridica de jure surdo-mutorum*, Groningen, 1824.

² *Observations sur les sourds-muets*.

³ *Dissertation sur la parole*.

are everyday less fit to attend to any application ; always attracted by this impression of exterior objects and carried away by the passions aroused in their souls, they do not know any law, any duty, any justice or injustice, any good or evil ; virtue and vice have no existence in their regard ; they refer everything to themselves, as to the last end, and they do not know any other end out of themselves.¹

IX. Not to pass by domestic authorities, a public professor in the institute of Clermont similarly affirms that the deaf and mutes having the exterior appearance of man are in fact without all those characters which constitute a moral being ; they are ignorant both of their nature, of their destination and of their God . . . banished from the intellectual world they are not equally banished from the material world, which exercises upon their senses the most pernicious influences.²

The Rev. Samuel Smith, A.K.C., Chaplain of the Association in aid of the Deaf and Dumb, London, has kindly forwarded the following most valuable and interesting particulars written by Mr. James Barland, a deaf mute, educated in one of the Scotch institutions, and assistant master in the Swansea Institution, of whose character and intellectual attainments the Rev. Mr. Smith has a high opinion. As Mr. Barland's letter contains answers to some questions put to him in relation to my present subject, and may interest the reader, I add it here entire.

Cambrian Institution for the Deaf and Dumb, Swansea.

October 16, 1871.

MY DEAR SIR,—I was pleased to receive your letter last Friday. I will try to answer the queries—1. Before you received any kind of instruction, had you any idea of God as

¹ Raphael's. *Kunst Taube und Stumme reden zu lehren, mit einer Vorrede des H. Cesars*. Leipzig, 1821.

² *Investigation for the Education of the Deaf and Dumb*, Dublin, 1822.

the Creator Ruler of the Universe? The answer is—I knew nothing of God until my friends pointed with their fore-fingers up to the sky with grave looks, and made signs that there was a beautiful place above the sky for good people, and fire underground for the bad people. My friends' signs and the pictorial volumes of the Holy Bible led me to think God to be a glorious but majestic person in a human form. I often looked at the moon, wondered what it was, and at last presumed that it was a man's face. I thought God, who could not see us from heaven, ordered the moon to watch us through a hole in the floor of heaven, and tell him our misbehaviour. I thought that neither God nor the moon could see me if I hid myself. I had not the least idea of spirituality; I was a thorough materialist, knowing nothing of omnipresence and omniscience; until I had been some time in school I did not know that God was our Creator and Preserver; until I went to school I was totally ignorant of God before my friends' signs and the Pictorial Bible gave me strange ideas. 2. Had you any idea of virtue and vice, right and wrong? The answer is: I did not know what right and wrong were until my friends smiled when I was good, and they frowned when I was naughty. They made signs to me that good people went to Heaven and bad ones to Hell. I saw the pictures of volcanoes, which led me to think a volcano to be the opening or mouth of Hell. I thought people who were obstinate in their wickedness were carried by force and cast alive into it. I was obliged to behave well, especially on Sundays, for fear of being carried and thrown alive into a volcano. 3. What were your ideas of death? The answer is—I did not know what death was, and also I wondered at the stillness of corpses until my friends' signs gave me strange ideas. The pictures of Jesus' Resurrection led me to think that good people were to rise up at night unseen by any man, having been in their graves for a very long time. I took the erect standing of new tombs or

grave stones as a sign that their occupants had not risen up, and the falling down of old tombs or grave stones as a sign that they had already risen up to heaven through the sky. I thought all wicked people were to lose the privilege of dying in their beds and remaining in their graves, but to be thrown alive into the volcano. I had no idea of eternity, though I supposed good people were to remain in heaven always. I cannot remember exactly any formed idea of duration in hell. I remain, yours respectfully,

JAMES BARLAND.

The Rev. SAMUEL SMITH.

X. This cloud of authoritative statements is more than sufficient to prove the negative part of my assertions, viz. that when social instruction is wanting, the faculties of speech and reason never obtain their development. Nevertheless, I will add here a few more facts relating to persons who, though enjoying the possession of all their natural senses, yet when deprived altogether of social instruction remained without speech and the use of their reasoning powers.

Chevalier de Feuerbach, a German, relates what occurred to G. Hauser, called *The child of Nuremberg*.¹ Gaspar Hauser, when only four years old, was placed in a solitary prison, in order to make an experiment on him, and was kept in complete seclusion from human society till he was sixteen years old. When released from his cruel confinement, some questions were put to him; but he could not understand anything, and always answered with the same few words he had then recently learned from his keeper, and shed tears. The boy was by no means stupid; when put under instruction, he showed that he possessed powerful intelligence. The complete separation from society kept his mental power dormant and

¹ Migne, *Dict. psych.* § xi.

buried. Father Juveny,¹ a critical Latin writer, relates the following: Father Jerome Xavier, a nephew of St. Francis Xavier, had several interviews with the Great Mogul, then a pagan, named Axebar (*inferior to none*). In one of these confidential interviews, the Emperor related to the Father an experiment he had made with thirty little boys. As soon as the infants were weaned, by the order of Axebar they were kept together in a secluded comfortable place, under diligent nurses, who fed them and took care of them, but were enjoined never to utter a single word to them, nor to one another in their presence, under the penalty of death. The Emperor acted thus with the intention of himself visiting them, and conversing with them when they were sufficiently old, in order to hear in what language the boys would reply to him, and to adopt the religion of that nation whose language these children should speak. The appointed time at last came, and Axebar put questions to them, but received not one single articulate word from any of these thirty children. They made only stupid signs with their faces and hands, as they had been accustomed to make to their nurses to show their animal cravings.

I am afraid of wearying the reader with these lengthy reports of statements and facts, yet, in conclusion, I must not omit the history of a girl given by Racine.² Mademoiselle Leblanc, in her infancy, before she was able to speak, strayed away, and was lost for many years, until she was found in the wood of Soigny, near Châlons, in the year 1730: according to the development of her body, she would be between fourteen and eighteen years old. She was then a true and original savage, more so than the common savages of Africa or America,

¹ *The Continuation of the History of the Society of Jesus*, lib. xviii. No. 14.

² *Éclaircissement sur la fille sauvage à la suite de l'épître sur l'homme*.

who, though in a state of great degradation, yet have an articulate language, a family life, and the use of their reason. Mademoiselle Leblanc was found incapable of pronouncing any kind of articulate words, nor did she show any development of her reason. She only made a frightful noise with her throat, and simply imitated the sound of some animals, and the piping of some birds. After she was instructed and able to speak, and express sufficiently her thoughts, L. Racine put to her many questions concerning her past life in the forests. She said to him that she was lost in her infancy in company with another girl, who remained with her until quite recently, and then disappeared; that she had no other object in her mind but to take care of her body, and to search after her food; that the aspect of nature around her and above her did not produce in her mind any particular idea; that she did not know anything beyond the impression made by exterior objects on her senses, &c. &c. Racine states in his account, that Mademoiselle Leblanc under instruction improved very soon, and very much; and practised with diligence and love all her moral and religious duties, and had her mental faculties as well developed as the most forward girl of her age.

XI. Therefore we may conclude, that social teaching is absolutely necessary to the first development of the faculties of speech and reason, as it is clearly proved that when social teaching has not been afforded, no speech is acquired, nor the faculty of reason awakened. This point is so certain that I dare here to challenge anyone to adduce even a single undoubted example of a person who succeeded in speaking, or in expressing by signs, or by articulate words, that he possessed any abstract ideas relating to scientific, moral, or religious truths, without having first received in some manner social instruction. It is true that Rousseau, Rénan, Cousin, after the old Epicurean leaders, with many writers of the present

time, with whom also in some measure agrees our Darwin,¹ proclaim that human speech and reason are naturally developed, without any extraneous teaching from society; but they have never proved their assertion, except with some 'it is probable,' 'it might have been so,' &c.; nor have they succeeded in contradicting the general, constant, evident fact, that man, altogether deprived of social instruction, is nothing else than a big baby. Rénan admits that it is impossible to explain how many words, in themselves very complicated, requiring reflection upon reflection, could have been naturally developed. I feel justified in repeating again and again my undeniable assertion that man, without receiving social instruction, cannot attain the first development of speech and reason. Language, either spoken or written, or expressed by artificial signs acquired by man from the society in which he receives his first teaching, is the means, the only means, for him to obtain the first development of his mental faculties.

XII. I must here remark that single ideas, confined to material and sensible objects as they exist in nature, may be acquired without social instruction and the knowledge of language. But man in this respect is not in any way above inferior animals. These single ideas are limited images of material objects, and do not require the faculty of reason. In order that man may be able to reason, he requires the power of reflecting upon the impressions made in his mind by exterior objects; he requires general comprehensive ideas, abstract from the particularity of material sensations; he requires a knowledge of adjective names, as *bitter*, *hard*, *good*; and the knowledge of substantives, as *bitterness*, *hardness*, *goodness*; he requires verbs with their different moods and tenses, as, *it is*, *it has been*, *it shall be*, &c.; he requires besides the means of designating invisible and spiritual objects. All these elements necessary for reasoning, having no material

¹ Loc. cit. vol. ii. ch. 21.

existence in themselves, could not be impressed distinctly in our minds without the help of proper words or signs, which alone unite the particular objects naturally separated, concentrate their existence in one point, and give them some kind of reality. This is only obtained with and through language. Whence it follows that man, without the help of language, cannot reason; his intellectual faculty would remain powerless, and, so to say, always dormant in his mind. How truly did Leibnitz say, in accordance with this fact, 'If there should be no written language, we never could think distinctly, we never could reason: ' 'Si characteres abessent, nunquam quidque distincte cogitaremus, neque ratiocinaremur.'¹ How emphatically Portalis said, 'Words are the incarnation of thoughts.' The same idea is variously expressed by other philosophers, who did not hesitate to affirm, that words are not only the sign and expression, but also the body of our thoughts; for words invest, fix, and give consistency to our thoughts, not only inasmuch as they are the means of communicating with and cementing society, but also they help and give a perfect existence to our own thoughts.

After due consideration of the above adduced reasons and facts, can any person entertain any longer the false idea that language and reason might have sprung up in man by natural development without any social teaching? If such can be found still adhering to the exploded system of the Rationalists, I should be tempted to send him to Linnæus, who, on a subject similar to this, said: 'Any person believing in a spontaneous generation must have sponge instead of brains.'

XIII. Before concluding this important chapter it will be useful to point out a very sublime and very evident consequence connected logically with it: a consequence so much the more necessary to be noted, as it is seldom attended to.

¹ *Dialog. de Connexione inter Res et Verba.*

I beg my reader to fix his attention on the following ratio-cination :—Society is a union of men.—Every man obtains the first development of his speech and reason and the knowledge of some truths through the teaching of other men.—Therefore the first man, the head of society, must have obtained the development of his speech and reason and the knowledge of some principal truths through the teaching of some other intelligent Being.—Thence it necessarily follows, that the first parent of our race could not have been capable of speaking and reasoning or of acquiring the knowledge of any primary truth, had he not been instructed by some other superior Being: that is to say, through some extraordinary means afforded to him by the providence of his Creator. If the said extraordinary means had not been supplied to the first man, he could never have obtained his speech, his reason, and the knowledge of any truth. Just as if he had not received eyes from the Creator of his being he would have been always blind. From thence it follows, that the first man was instructed to speak a language, to make use of his reason, and to know some necessary truths through and from the teaching of the Author of his nature: to whom the first man consequently owed not only his body and soul, but also the development of his speech and reason, and the knowledge of first truths. It consequently appears, that the very first necessary principles of morality and the chief principles of the so-called natural law are not, and cannot be, an invention of the limited mind of man; man had the first development of his speech and reason through natural revelation. The first necessary instruction was imparted to the first man by God. These last consequences stand good and unshaken even though the system of natural selection and development, relating to man, be admitted. For also in these hypotheses, which are indeed asserted, but by no means scientifically proved, it would be necessary to have recourse either to some

new kind of creation, or to the existence of some other natural law not yet known to us, with which our speech and reason had been developed, and some first truths communicated to man.

XIV. It is unnecessary to add any further confirmation of the above truths. Yet I will quote here the opinions of some known writers. The first shall be one who lived in the middle ages, whose authority is, by common opinion, as good in metaphysical science as an entire university of philosophers. 'The first man,' Thomas Aquinas¹ says, 'as he was formed in a perfect state as regards his body, so that he could at once generate children; so he was formed also in a perfect state as regards his soul, so that he could at once instruct and rule them (viz. his children). Now no one can instruct others if he has no science. Therefore the first man was so formed by God as to possess the knowledge of all those sciences in which it behoves man to be instructed. Consequently he was instructed in all those sciences which are contained in the first principles evident in themselves, viz. in all those sciences which man may naturally know. Besides, in order to rule his own life and the life of others well, it is necessary that man should possess not only the science of truths which may be naturally known, but also the science of truths which are above our natural knowledge; because man's life is ordained to some supernatural end Therefore the first man possessed so much knowledge of supernatural truth as was necessary to rule human life in accordance with that state.' M. G. Humboldt² says, 'I shall follow the opinion of those who refer the origin of languages to an immediate revelation of the Divinity.' Fichte³ asks, 'Who gave instruction to men?' He answers, 'We have already proved that every man

¹ D. Thom. *Sum. Theol.* p. i. ques. 9, 94, art. 3.

² M. G. Humboldt, *Lettre à Abel de Remusat*.

³ Fichte, *Droit de la nature*.

is in need of being taught. We cannot say that men have been instructed by other men, because we speak of the *first* man. It is, therefore, necessary that men should have been instructed by some intelligent being who is not a man.' I will now conclude with the authority of a pagan, who wrote previous to the Christian era, in the hope that it may be more evident, that this last consequence is not an illusion of some present writers, but is a logical truth derived from the soundest principles of reason. The great orator and philosopher Cicero clearly admits that the first truths, the foundation of all good reasoning and morality, are derived from a revelation, as a gift and invention of the Divinity.¹ 'Philosophy,' he says, 'the mother of all sciences, what is it except, as Plato says, a gift, and as I say, an invention of the gods? Philosophy taught us first to worship their divinity; then established the rights of man, which constitute human society. Philosophy taught modesty and heroism. Philosophy dispelled darkness from the intellect like fog from the eyes, so that we are able to perceive what is above and beneath, what is the beginning, the middle, and the ending.' And again the same philosopher² says, 'Nature gifted man not only with readiness of perception, but gave him besides, senses, like attendants and messengers, and revealed to him the knowledge of many necessary and obscure things, as some foundations of science.' 'From this it is understood that prudence also and intelligence of men are derived from the gods; and for this reason our ancestors have decreed that public consecration and dedication should be made to Intelligence, Faith, Virtue, and Concord. . . . Now, if mankind possesses Intelligence, Faith, Virtue, and Concord, whence could they descend to the Earth except from on High?'³

¹ M. T. C. *Tusc. quest.* lib. i. 26.

² *De Legibus*, lib. i. 9.

³ *De Naturâ Deorum*, lib. ii. 31.

NOTE.—Observe that Cicero blames the superstition towards gods invented by men, and their plurality and attributes set forth by the pagans, saying, ‘We give the name of God himself to those things which were derived from God, as when we give the name of Ceres to the crops, and the name of Bacchus to wine.’¹ After mentioning the names, and the fables spread respecting particular gods, he concludes, ‘These things are said and believed very foolishly, and are full of nonsense and the greatest vanity.’ ‘Hæc et dicuntur et creduntur stultissimè, et plena sunt futilitatis summæque levitatis.’

¹ *De Naturâ Deorum*, lib. ii. 23 and 28.

CHAPTER VIII.

THE ORIGINAL CONDITION OF MANKIND WAS NOT A STATE
OF BARBARISM.

I. **THOUGH** from the proofs already adduced in the past chapters, it may be inferred that barbarism was not, and could not be, the original state of man; yet as the opposite assertion is the cherished dream of many old as well as new writers, I will confirm the present proposition with some additional reasons and facts. Let us begin with a passage from a writer generally very partial to the primæval savage state of mankind. Jean Jacques Rousseau says, 'Most of our philosophers entertain no doubt in their minds that the idea of the existence of the first man in a state of nature is false.'¹ Yet from the reading of Holy Writings it is evident, that the first man, having received immediately from God both instruction and precepts, could not be in that state. Allowing to the writings of Moses that faith which is due to them by every Christian philosopher, it must be denied that men remained in the state of nature even before the flood, except on the supposition that they had fallen into that state through some extraordinary accident, which is a perplexing paradox, and it is absolutely impossible to prove it.'²

II. It is truly said here by Rousseau, that every Christian

¹ *Œuvres compl.* tom. i. p. 54.

² Observe that *state of nature*, according to the system of Rousseau, means the condition of man without speech and reason, and with the inclinations proper only to the inferior animals.

philosopher ought to rely upon the writings of Moses, for he is the first writer of the world extant, both in order of time and authority. Herodotus is reckoned the oldest profane writer of history; and Homer, who flourished many centuries before Herodotus, is amongst the first writers of poetry. But Moses wrote his history about five hundred years before Homer's time; and therefore he is to be preferred to every profane writer, not only in relation to the facts of his own time, but also with respect to facts previous to his time, about the origin and history of man. Because, speaking concerning facts of his time, Moses had full knowledge of them, and was intimately connected with them; and because he is proved to be a fair and candid relator: he did not conceal the many very great crimes of his own people, nor the imperfections of his sister, nor the sin of his brother, nor even his own faults. With respect to the facts which occurred before his time, about the origin and history of men, as, on the one hand, from the character given to him both in the Old and New Testaments, we know that he, being a very virtuous man, could not wilfully write falsehoods; so, on the other hand, he must have had full knowledge of the history of his forefathers, even on the supposition that he wrote without Divine inspiration, and that no written documents had existed at his time. Because, considering the great length of life¹ of the first patriarchs, Moses must have had every information through

¹ The years of the life of the ancient patriarchs were years approaching ours, and not periods of a very short duration. Certainly Jacob the patriarch, when asked by the king of Egypt how old he was, answered: 'The days of my pilgrimage are *one hundred and thirty* years, few and evil, and *they do not come up* to the days of the pilgrimage of my fathers.' Those who say that the years of the life of the ancient patriarchs were years of one month only, are evidently mistaken: as Malaleel and Enoch are said (Gen. v.) to have begotten sons when they were sixty-five years old: they would then have had children when they were only sixty-five months old!

non-interrupted traditions. If we reflect that Shem, a son of Noah, for many years saw Methusalah, a contemporary of Adam, and that Shem himself lived to the time of Abraham; if we reflect that Abraham died after the birth of Jacob, and that Jacob saw many who were alive when Moses was born, we see that a few generations connect Moses not only with Noah, but also with Adam; and therefore that Moses, through tradition, could have had every kind of information about the origin and first history of his forefathers, though no written documents may have existed at his time, nor any Divine inspiration be allowed.

III. Let us now speak to those who take it for granted that the wild and savage life was the natural and primæval state of man. This supposed state must have existed either before the flood described by Moses, or after it. But there are no traces of savage life before the flood: on the contrary, everything proves the existence of domestic and civil life. Adam received an order from God to till the land of the earthly paradise: how could he work without suitable implements? Adam gave the best adapted names to animals after their kind. How could he do this without possessing speech and developed reason? Cain, the first son of Adam, was a husbandman, occupied in tilling the earth; and Abel, his brother, was a shepherd, two occupations peculiar to civilised people. The two brothers offered to the Lord sacrifices: Cain, the fruits of the earth; Abel, the firstlings of his flock. How could this be without a full knowledge of the existence, the greatness of the Supreme Being, and of the religious honour due to Him? Cain, after the birth of Enoch, built a town, and called it after the name of his son. Can any town be built without knowledge and design, without materials and implements of every kind, and without skill in putting everything in order? Therefore five generations after Enoch, when we read that Jabal, son of Lamec, is called the father of such as dwell

in tents and of herdsmen; when we read that his brother Jubal is called the father of those that play on the harp and organ; when we read that Tubalcain, another son of Lamec, was an artificer in brass and iron; we must understand simply that these persons excelled each one in his art, and not that they were the original inventors. Therefore, before the flood described by Moses, there is not the least hint of any original wild barbarism; and, on the contrary, there are clear proofs that a domestic and civil society existed. Moreover, we may say the civilisation and the vices consequent on the excess of civilisation¹ brought upon the antediluvians the wrath of God: as we read in the Gospel, that, whilst immersed in their luxuries, the flood came and destroyed them all.

IV. Passing on to the time posterior to the flood of Noah, there is no trace of barbarism to be found in history, viz. in the true history of man, in which Fernand Denis,² the well-known orientalist, truly says, 'If we read modern historians who have written on origins, we shall see that the book of Moses has again acquired that historical authority which religious belief gave to it.' It is unnecessary to expatiate on such evident facts. After the flood of Noah, his three children are stated to have been the fathers of all the human race. But Noah, as well as Shem, Ham, and Japheth, and their wives, were not barbarians or savages. The original state of mankind, therefore, after the famous flood of Noah, was the domestic and civil state. The families derived from Noah did not separate far from each other till after the building of Babylon and the attempt to erect the famous tower as a monument to immortalise the name of its builders. With the confusion of languages families separated. The family of Shem propagated

¹ The words in the Bible, 'the sons of God,' evidently mean the good sons of Seth, who, by the passion of love, were perverted and married the *daughters of man*, namely the descendants of Cain.

² 'La Philosophie de voyage,' *Revue de Paris*, Dec. 1832.

the Semitic tribes on the river Euphrates, and in some parts of Asia Minor, Syria and Arabia. The family of Cham, or Ham, was spread on the banks of the Nile and parts of the coast of Africa and of the Arabian Gulf; and from thence, through commerce and navigation, they peopled many other very remote parts of the earth. The family of Japheth occupied the lands bordering principally on the Mediterranean Sea and the isles called those of the Gentiles; and from thence came the Greeks, Romans, and many Europeans, who, ignorant of the true origin of the other nations, thought all mankind were born and descended from Japheth. Hence that famous line of Horace: 'Audax Japeti genus.'

V. Who, then, can suppose that the children of Noah, who from Mesopotamia went to the four winds and occupied the principal parts of this earth, and are the source of all human families;¹ who can suppose that the children of such a father, who worshipped the true God, the keeper of the first traditions relating to faith and morals—who can suppose that such children were ignorant barbarians and wild savages? Who can agree with a late keeper of the library of St. Geniève, Monsieur de Brétonne,² who had the audacity to say that primitive men cannot be conceived otherwise than as without thoughts, without speech, without any difference, however little, among themselves; and only as a rude aggregation, like beasts going in flocks, and possessing a common, low instinct, which admits neither change nor progress? If such a person could now be found, the united voices of all nations would be raised in indignant cries against him. The very tribes of those savages who are sunk into the lowest depth of

¹ There is no reason to assent to the opinion of those writers who affirm that we are derived from many couples of first parents. The reader is referred to the chapter where it has been proved that we all are descended from a single man and woman.

² *De la Civilization primitive*, liv. iv.

degradation, such as are the New Hollanders, those in Terra-del-Fuego, the insect-eaters, &c., yet manifest marks of ancient, and, though corrupted, yet not quite effaced civilisation. I may mention the fact, that the greatest number of savage tribes, both of past and present times, possess some idea of a Supreme Being, or of Supreme Beings; that they have religious rites and ceremonies; that they distinguish between good and evil actions; that they show a sense of justice, honesty, morality, &c.: characteristics, any one of which show some remnants of civilisation; like the ruins of old gigantic structures in Syria, India, China, Egypt, and some parts of America, which prove the mighty power, the genius, and the riches possessed by those peoples even before any historical time.

VI. All these facts supply, indeed, a strong argument in reference to the tribes in which they are to be found; but they afford no argument with respect to other tribes, in which these characters cannot be discovered. Therefore I am satisfied with the statement of one single proof which is afforded by every single tribe, though sunk ever so low; namely, that each one of these tribes, without a single exception, possesses a language with which they converse with each other, and communicate freely their ideas and the reasoning of their minds: a language in many tribes as perfectly formed as in the most civilised nations. Now, in a foregoing chapter it has been clearly proved, that no speech is acquired, nor any development of reason obtained, without instruction from others already instructed. Therefore the fact, the single fact, of all savages possessing a language, evidently confirms the assertion, that the members of each savage tribe, so far from having emerged from the state of original uncultivated nature, are human beings fallen and degenerated from the civilisation of social life, which is the only natural state of man.

VII. I should wish to illustrate this conclusion by touching

upon some of the late discoveries, which prove that civilised populations existed from time immemorial in places where savage tribes have been found established. I might mention the mound and the square buildings discovered under a dense forest of trees which have overgrown them in the state of Ohio ; and the human implements and works of perfect design and execution found there at a very considerable depth below the surface. I might cite the very curious old stone, six feet square, recently discovered, after the breaking of an old chain caused by a storm, near Brownsville in the west of Pennsylvania ; on which stone, besides many engraved figures of deer, birds, &c., there is engraved a man and a woman standing by a tree, the woman holding a fruit in her hand. It is certain that this stone is far anterior to the time in which Columbus discovered America. I might point out that in Peru, in North America, and elsewhere, customs, arts, errors, pyramids, temples, figures have been discovered by diligent searchers after antiquities, counterparts of those in the old continent, in Asia and Africa.

This is an additional argument that the savages and also the civilised tribes of the so-called New World brought with them, and kept, at least in some form, the instructions and traditions of old civilised nations.

But that I may not write a big volume instead of a small treatise, after the alleged undeniable proofs, I conclude by repeating the proposition with which I headed this chapter, That the original condition of mankind was not and could not be the state of barbarism : it was the state of domestic and civil life.

CHAPTER IX.

THE SOUL OF MAN IS NOT FORMED OUT OF MATTER: IT IS
SPIRITUAL AND IMMORTAL.

I. THE subject of this chapter is in itself, and in its consequences, the most important of all the truths I have endeavoured to elucidate in this pamphlet. Do we possess a spiritual soul different in its kind from the vital principle of the inferior animals? Is the soul naturally not liable to corruption? Does it continue in the enjoyment of its intellectual faculties for ever and ever after the death of the body? I hope that I shall be able to give a clear and decided answer to the questions I have proposed, and that every fair and unprejudiced mind may be convinced of the truth.

II. Tullius Cicero, who (as we remarked above) wrote before the Christian era, when England was considered by the Romans a barbarous nation¹—Cicero, who is as eminent in oratory as in rational philosophy, shall speak first on the proposed questions. I am persuaded that a great number of those who are called professors of rational philosophy have very much to learn from him. Let him explain himself without comments.² ‘The origin of our soul cannot be found anywhere

¹ Cicero, *de Nat. Deor.* lib. ii. 35: ‘If any one should carry into Scythia or Britain that sphere which our friend Posidonius has so constructed, that, when set in motion, it represents the movements which the sun, the moon, and the five planets perform during the day and night in the heavens; who is there in *those barbarous countries* who would doubt that this sphere was a work of an intelligent mind?’

² Cicero, *Tusc. Quest.* lib. i. 27.

on earth, because it is evident that there is nothing in the soul which is of mixed or compound nature made and produced out of earth. It has in it no ingredient of water or air or fire. For there is in these natures nothing which possesses the faculties of memory, of reason and thought. Nothing that would remember the past, foresee the future, or comprehend the present. These are divine attributes, and never will it be discovered that man has received them from any other but from God. Therefore the nature and power of the soul is singular, having nothing in common with those usual and known natures. Consequently all that feels, understands, wills, acts, is heavenly and divine, and on this account must be eternal. In reality, the same God whom we know could not be known to us if our souls were not free and disengaged and separated from all mortal dross.' 'For when we enquire into the different natures the question is usually raised relating to the perpetual movements and revolutions of the heavenly bodies: and it is said that a fitting time came for the formation of human species, which being propagated and spread over the earth was endowed with the divine gift of the soul. And whilst the other parts of which man is composed are taken from mortal elements and are fragile and perishable, the soul is produced by God. Whence we may truly be said to be relatives, progeny, offspring of heaven. Therefore among so many kinds of animals there is none which has any knowledge of God except man. And amongst men, there is no nation so ferocious, so barbarous, which, though it may be in ignorance of the attributes of the God it should adore, yet does not know that there is a God to be adored.'¹

'You, when either God or Nature the mother, as we may say, of everything, has given to you a soul, than which

¹ Cic. *de Leg.* lib. i. No. 8.

nothing is more excellent and divine; will you degrade and debase yourself so as to think that there is no difference between you and a quadruped?'¹

'But between man and a beast there is this very great difference, that the beast is affected only so far as the senses are moved towards that which is actually present, feeling very little the past or the future. On the contrary, man, being endowed with reason, sees the consequences, knows the causes bringing forth effects, and is not ignorant of what follows or what precedes them. He compares things which are similar, and connects the future with the present: easily perceives all the course of his life, and prepares what is necessary to preserve it.'² 'The first requisite is that which is seen in the society of mankind: reason and speech is the link of it. . . . Nor are we in any other thing further removed from the nature of wild beasts: in which we often say that there is strength, as in horses and lions, but we do not say that they possess justice, equity, goodness, because they are not endowed with reason and speech.'³ 'The power of nature may be perceived in beasts, inasmuch as by nature senses have been given to them. For nature has ordained that some should be in the water and swim; others should be winged, enjoying the free air; others should creep; and others walk on the land; of these last some are solitary, some gregarious, some of huge dimensions, some domesticated, and some concealed in the bowels of the earth; and each beast retaining its own species remains under that law of nature which ordains that no beast should propagate animals of a different kind.'⁴ Now as Nature has given to the various beasts particular characteristics, which they retain without departing from them; so the same

¹ Cicero, *Paradox* I. *ὅτι μόνον ἀγαθόν, το καλόν.*

² Id. *de Officiis*, lib. i. No. 4.

³ Ibid. No. 16.

⁴ Cicero gives here one of the reasons which has great force against the new theory of the changes of species.

nature has given to man certain things of much greater excellence. Though those things only ought to be termed excellent which admit of some comparison. Whereas the soul of man, which is an emanation from the Divine Mind, cannot be compared with any other thing but with God Himself, if we may be allowed to say so.' ¹

'If we know anything of natural science, we cannot entertain a doubt that in the soul there is no admixture, nothing concrete, nothing superadded, nothing amalgamated, nothing double. It being so, it certainly follows that the soul cannot be parted, or divided, or lacerated, or disjointed; and therefore it cannot die: because death is the separation, the division, the disjointing of those parts which before death were in some way united together.' ²

'Many entertain depraved ideas of the gods. This is produced by vicious habits; yet all men are persuaded that a Divine Power and Nature exists. . . . If the general consent of men is the voice of nature, and if all men in the world are fully persuaded that there remains something pertaining to those who depart from life, we also must have the same conviction. . . . But as we naturally admit that there are gods, and by reason know what they are; so by the consent of all nations we are persuaded of the permanent existence of our souls.' ³

'For the soul is celestial, brought down from the Highest Habitation to the earth, a place not suited to a divine nature and to everlasting existence. I believe, for this reason, that the immortal gods have sent souls into human bodies, that there may be persons who should take care of the earth, and who, meditating on the order of the heavenly bodies, should imitate it with their life and constancy. Shall I say more?

¹ Cicero, *Tusculan. Quæst.* lib. v. No. 13.

² Ibid. lib. i. No. 29.

³ Ibid. lib. i. No. 13, 15, 16.

It has always been my persuasion, and I still feel that our souls, possessed of so much energy, of so good a memory of the past and of so great an insight into the future, so many arts, and profound sciences, so many inventions; I am persuaded that the nature of the being that possesses such prerogatives cannot be mortal.' ¹

Cicero, referring to the last days of Socrates, who accepted death willingly, since a few days previously he had the chance of leaving his prison, yet refused to do so, continues as follows:—'Because he (Socrates) was so persuaded and always so taught, that there are two paths and two different ways for souls that depart from the body. For those who have defiled themselves with great vices and given themselves up totally to their lusts, and being then blinded, either had stained themselves with domestic vices and crimes, or had plotted unpardonably against the integrity of the republic; to these is destined a downward road, apart from the assembly of the gods. Whilst they who had kept themselves innocent and pure, who had hardly any defilement in their bodies, and had always separated themselves from depravity, and had whilst in human bodies imitated the virtues of the gods; all these will find a return readily open to them from whom they came forth.' ²

III. The above-quoted passages from Cicero are to be attentively considered, and particularly appreciated, not only because they are dictated by so great a man, but principally on account of the logical reasons contained in them. There are here palpable proofs that our souls are spiritual, free from all that is material; that there is a specific and essential distinction between our souls and the vital principle of beasts; that our souls are immortal, and that a double state exists for them after the death of the body: one of happiness and

¹ Cicero, *de Senectute*, No. 21.

² *Id. Tusculan. lib. i. No. 30.*

another of misery, in accordance with the good or evil actions performed during life.

IV. I must here congratulate two modern authors, who have repeated the same fundamental truths which have been stated by Cicero relative to our souls: whose example I should be glad to see followed by many more of our great writers; inasmuch as the disbelief or the doubt of the spirituality and immortality of the soul, and of the existence of a future life, leads to the denial of all religion, and saps the foundations of all morality. One of the writers alluded to is Mr. St. George Milvart, F.R.S., in Chapter XII. of '*The Genesis of Species*,' where, describing the meaning of the word *creation*, he says that, in its most rigorous sense, it 'is the absolute origination of anything by God, without pre-existing means or material, and is a supernatural act.'¹ And after adding very wisely that, with the Creation understood in this sense, 'science has nothing whatever to do, and is impotent to prove or refute it,' he concludes: 'We find a perfect harmony in the double nature of man; . . . his soul arising from direct and immediate Creation; and his body being formed at first (as now in each separate individual) by derivative or secondary Creation, through natural laws.' The other very well-known writer is the Duke of Argyll, who, in Chapter VI. of his book, '*The Reign of Law*,'² after naming the will of man, with true logical wisdom, he emphatically continues: 'But in this last power we touch the secret of that boundless difference which separates man from the highest of the animals below him. There is such a gulf between the faculty of his mind and those of the lower animals, that the forces acting in the human spirit become by comparison immeasurable, and involve motives belonging to a wholly different

¹ *The Genesis of Species*. London, Macmillan, 1870.

² Ludgate Street, London, 1867.

class and order. He is exposed indeed to the lower motives in common with the beasts ; but there are others which operate largely upon him, which never can and never do operate upon them.'

V. I might bring forward passages to the same effect from innumerable writers belonging to the Christian era ; but what I have quoted from the Roman orator and philosopher (who is the echo of the doctrines of Plato, Aristotle, and Socrates, the best and most famous rational philosophers of antiquity), will, I think, suffice to show how inexact are certain expressions of Mr. Darwin, which we find in his book on 'The Origin of Man.' After saying that naturalists treat of objects which are felt and seen by our exterior senses, and that the spiritual power is out of the province of a naturalist,—'the spiritual power cannot be compared and classed by naturalists,'¹ in contradiction to this principle laid down by himself, he strangely, and without bringing forward any conclusive proof, makes this bold assertion : 'The mental faculties of man and of the lower animals do not differ in kind, although immensely in degree : a difference in degree, however great, does not justify us in putting man in a distinct kingdom.' And previously, in Chapter III. of the same book, he had said, that it seems to him 'in a high degree probable . . . that any animal whatever, endowed with marked social instincts, would inevitably acquire a moral sense of conscience, as soon as his intellectual powers had become as well developed, or nearly as well developed, as in man. . . . It is probable that the ape-like progenitors of man were likewise social, . . . the difference in mind between man and the higher animals, great as it is, is certainly one of degree and not of kind. . . . The reason of which man boasts may be found in an incipient, or even sometimes in a well-developed

¹ Lib. i. chap. vi.

condition in the lower animals.' The unwarrantableness and strangeness of the above Darwinian assertions will be perceived, without any remarks of mine, by comparing them with the passages quoted from Cicero, whose name will live long, very long, after the fatuous light of many present writers shall have sunk into oblivion.

VI. In order that the spirituality and the immortality of our souls may be better explained, and the essential difference between man and the lower animals be more clearly proved and perfectly understood, I beg the reader to consider attentively the following remarks and reasons, taken from the pen of one of the greatest and most profound thinkers of the middle ages.¹ His first remark is on the school of the materialists, who made no distinction between sense and intellect; and who derived both from a material principle. From this false foundation it would naturally follow that there is no specific distinction between a man and a beast, except in the exterior form of their bodies. His second remark has reference to the teaching of Plato, who rightly established a very broad distinction between sense and intellect; but yet, without any foundation of truth, derived both from an incorporeal principle. His third remark is that Aristotle, holding the same essential distinction between sense and intellect as Plato, proved that the senses and their affections are always united with some material alteration in the body. For instance, our eye is affected by the impression of light, and our ear by the undulation of the air. But Aristotle at the same time maintains that our soul, when exercising the act of reason, in no way depends upon the exterior senses of our body. The fourth remark is, that we do not know the intrinsic nature of any being in itself; but we acquire the knowledge and demonstrate the nature of every existing being by observing their

¹ D. Thom. *Sum. Theol.* Pt. I. quæst. 75 and 118.

operations and their effects. As from its fruits we know the kind and quality of a tree, and from the effects of burning we know one of the properties of fire.

VII. Let us now come to the logical proofs, that our souls, as being spiritual, incorporeal, and self-subsistent, differ in kind from all the lower animals. The intellect of man is capable of knowing, by observation and induction, the properties of material bodies. Now, every material body has a determinate nature of its own. Consequently, if the intellect of man be material, it could not perceive the properties of material bodies, because its own material nature would exclude its acquisition of the knowledge of all other material natures, as the bitter tongue of a sick man makes every kind of food to taste bitter, and a coloured glass put before the eye causes every object to appear of the same colour. Therefore, if man's intellect be material, or only able to know objects through some material medium, it could not know all other bodies. Therefore the intellect of man must possess a mode of action peculiar to itself, in which no material body participates. And as nothing can act independently by itself, if it does not subsist independently by itself, it follows that the human soul, namely, the intellectual part of man, is incorporeal, spiritual and self-subsistent.

The same conclusion is equally arrived at by considering that the human intellect understands objects taken in general and abstracted from all limitation of time, of place, of circumstances, or of any particular marks; as when we think of *man*, *stone*, *tree*, *beast*, &c., which objects exist externally only in their circumscribed nature. Now, the action of any being cannot be extended beyond the power of its nature. The nature, therefore, of the human intellect must be unlimited, and above all materiality; and, consequently, incorporeal, spiritual and subsistent in itself. This truth is also apparent from the fact that we apprehend many things

which have no material existence ; as justice, prudence, magnanimity &c.

In fact, if our intellect be of a material nature, it would also be limited in its apprehensive power. But the intellectual power is unlimited and in some way infinite in its mental conceptions. It apprehends what is universal, and reasons absolutely on figures and numbers, and derives general consequences from its reasoning : which equally proves that our intellect is unlimited, and cannot be material.

Besides, we reflect with our intellect not only upon extraneous objects but also upon ourselves and upon our own actions : and we understand our own understanding and reflect upon our own reflections without any limit. It is impossible that these acts could be produced by any material body. Therefore our intellect must be incorporeal, spiritual and subsistent in itself.

Furthermore, every material power suffers when it is strained too much : as our vision is dimmed when the light is too strong, our hearing is dulled when sounds are too shrill, and the taste is destroyed when the savour of some condiment is too strong. But our intellect, on the contrary, the more it understands, the more it is capable of understanding higher and higher reasonings ; as is seen in men given to the study of the mathematical, physical, or metaphysical sciences. Therefore our intellectual power cannot be material, but must be incorporeal, spiritual and self-subsistent.

VIII. Our soul being by nature incorporeal, spiritual and self-subsistent, it follows that it cannot die from the dissolution of the body. Because the intellect, having no mixture or composition of parts, it is impossible that it be separated from itself, and in consequence it must be immortal. Again, the human intellect apprehends absolutely its own present existence without limit of time ; and naturally wishes to exist always without limit of time. Therefore, as a rational wish

which is prompted by nature cannot be devoid of meaning and effect, it follows that the human soul, the intellectual part of man, is incorruptible and immortal.

IX. It may be said: allowing what has been here stated above, that our intellect is independent of our body in the act of reasoning, how can it happen that when we are in ill-health, or affected with headache, or enfeebled, we are then unable to think or at least impeded in the exercise of our mental faculties? To reply to this question I must have recourse to the teaching of Aristotle, followed by the Aquinas. While our soul is united to the body, our intellect perceives objects by looking at their image or sensible phantasm represented to the mind. Mark that this image or sensible phantasm is not an organ with which the action of understanding is executed, but it is merely an objective spectrum, on which the intellect acts. This spectrum is to the intellect in the same relation as light is to the eye. Our eye cannot see without the presence of light, but it does not thence follow that the existence of the eye depends upon light. In like manner, no animal can have any impression on its senses without the existence of some exterior object; but it does not follow thence that the existence of the senses of an animal depends on an exterior object. This will explain why in sickness and when our bodily frame is feeble we are not capable of thinking and reasoning as well as when we are in full health; because the spectrum which pertains to our bodily constitution is not then a fit and ready servant to the intellect. Just as when a room is filled with a thick vapour, the mirror hung upon the wall becomes dimmed and incapable of clearly reflecting the objects placed before it, so, in consequence of our bodily frame being weakened or disordered, we experience a loss of memory and a debility of all our sensitive faculties. These defects are to be ascribed to the body, not to the soul. The mental power of an intelligent man often appears to be brightest and most perfect at the

very time when he is most feeble in body. From what has been said here of the bodily spectrum and of the connection of the body with the soul, it does not follow that when the soul is separated from the body, and consequently no longer has a bodily spectrum whereby it may represent to the mind intelligible objects, that the soul will then be rendered incapable of understanding anything. For the soul will then be in a different state which may be termed a preternatural state, and it will require preternatural means. It may be presumed that there will then be given to the soul the power of looking at the objects immediately, without any need of those aids which at the present are given by the body.

X. In coming now to the specific and essential distinction between our soul and the vital principle of the lower animals, I beg the reader to recall to his mind what has been said above; that we know the nature of different beings from their effects and operations; and to consider that all the operations of the inferior animals, even of the highest order, are always directed by their senses, and that no beast has ever given us in any action the least proof to conclude that it acted independently of the material impressions of its senses. From this constant fact it follows that the vital principle of beasts cannot be subsistent, and that it is not immortal: because, being dependent on the senses of their bodies, it cannot last after the destruction of their bodies. The life and vegetation of a tree is not properly a material thing in itself, it is something over and above what is included in the general notion of a common body: otherwise every stone would have life; yet no one has ever thought that the vital principle of vegetation in the tree will last after the destruction of the tree. Now, though the inferior animals, besides possessing life, possess also senses and imagination in relation to particular sensible objects, and have also some kind of understanding; yet it cannot be said that their vital principle has any exist-

ence after the destruction of their bodies, because, as we have seen, they have no operation independent of the senses of their bodies; it being a generally received axiom, not only among the Aristotelic school, but also among all persons possessing clear understanding, that the operation of any being corresponds with its nature; and that the nature of any being corresponds with its operation.¹

I must add here some very important remarks.

The vital and sensitive principle of beasts, like that of the life and vegetation of a tree, is not the effect of a new Divine creative act; it is evolved in accordance with a general law of nature. But the intellectual principle of the soul of man is on the contrary a principle transcending all material power, because it has an operation with which nothing that is material has any part; and therefore, speaking of the spiritual soul, we must say, that it cannot come by development out of any material substance, but must come immediately from a Higher Power. This truth was proclaimed also by the illustrious Aristotle, when he said, 'It follows that the intellect alone comes from without.' '*Relinquitur intellectus solus de foris advenire.*'²

All creation is constantly acting under the law prescribed by the power of the Creator. Therefore there is not any objection to our saying that the formation of all natural things, of the lower animals together with the human body, is derived from the action of material orders in accordance with a general physical law; whilst the intellectual soul of man, which is not and cannot be comprised under the category of any material law, is immediately created by the power of the Almighty and breathed at the appointed time into the body of man.

XI. From this it is evident, that man in what relates to his

¹ '*Operatio sequitur esse. Similiter unusquisque habet esse et operationem.*'
D. Thom. *ibid.*

² *Lib. de Genese animarum.*

material body, pertains to the genus animal. On this account man has the same beginning of generation, the same properties of life, and the same death as the rest of the lower animals. Hence the Ecclesiastes¹ says, 'The death of a man and of beasts is one, and the condition of them both is equal: as man dieth so they also die: all things breathe alike, and man hath nothing more than beast of earth they were made, and unto earth they return together.' Though this is quite true in relation to our body, and in relation to the bodies of all the inferior beasts, it is not true with regard to the intellectual part of man. Man and the lower animals in this respect are altogether different, and must be put in quite a distinct order and species. The vital principle of the lower animals being derived from some natural development of their material bodies, ceases to exist at the destruction of their bodies. But it is different with respect to the intellectual soul of man, which is derived by production from without, and is called into existence by the Author of Nature. Hence we read in the book of Genesis² respecting the lower animals, 'And God said, Let the earth bring forth the living creature in its kind, cattle and creeping things and beasts of the earth.' And respecting the body of man it is also equally said,³ 'And the Lord formed man of the slime of the earth.' But whereas there is no mention made of the creation of the vital principle of the lower animals, of man it is particularly said,⁴ 'Let us make man in Our Image and Likeness,' and⁵ '(The Lord) breathed into his (man's) face the breath of life, and man became a living soul.' And, while nothing is said about the vital principle of the lower animals at their death, in the same Ecclesiastes⁶ it is clearly stated respecting man's death, 'And the dust returns into the earth from whence it was, and the spirit returns to God who gave it.'

¹ Chap. iii.² Chap. i. ver. 34.³ *Genesis*, chap. ii.⁴ *Ibid.* ch. i. ver. 26.⁵ *Ibid.* ch. ii. ver. 7.⁶ Ch. xii. ver. 7.

XII. Many facts are brought forward to prove the sagacity of the lower animals, in order to establish the false theory that their vital principle is of the same nature as the soul of man. But the intelligent reader knows very well that the sagacity of the lower animals (wonderful as it is in many instances) is an effect either of what is truly called natural instinct, which means a manner of acting without the intervention of reason, or of deliberation—*duce natura*; or it is due to the skill and teaching of man. But of the innumerable examples which might be quoted, where we find the productions of the lower animals under the guidance of their instinct far superior to any similar production of men, I will refer to the honeycomb of bees, the cobweb of spiders, the migration of birds, the construction of their nests, the foresight of ants, the ability of dogs, the prudence and memory of the elephant &c. &c. On this subject I need do no more than call attention to the fact that particular instinct being common to each kind of animal, and displaying always the same identical features, it is unquestionable that they are directed by a superior mind in what they are doing materially, and that they are more led to act than acting freely.¹ With regard to other alleged acts of some trained animals, we may observe that they show the skill of the man who has taught these animals, and that they may truly be said to act in accordance with the intelligence of another, and not with their own. But the animals themselves only act in accordance with the impressions conveyed to their senses. For instance, the famous well-known dog, which was able to arrange numbers written on square blocks, so as to work arithmetical accounts. Also the learned donkey, which, when some of the crowd cast on the ground coins of different value, beat the ground as many times with his right leg as there were shillings contained in the coin. The fact is that the master by their side indicated to them with his eyes, or with a hidden stick, what the beasts were to do.

¹ '*Magis aguntur quam agunt.*'—D. Thom.

CHAPTER X.

MODERN DISCOVERIES IN NATURAL SCIENCE ARE NOT, AND CANNOT BE, IN CONTRADICTION WITH REVELATION.

I. As amongst the objections placing natural Science in antagonism with Revelation, there are some which relate to the origin of the world, of man, and of his original state, I consider it my duty to give some hints about a few of them. But first it must be admitted by all parties as an undeniable principle, that true Science and Divine Revelation cannot be contradictory. For the Eternal Infallible Truth being the acknowledged Author both of our reason and of Revelation, no contradiction can exist between them; otherwise it would follow that God is in contradiction with Himself, which is an impossible supposition, destroying the idea of an Infallible Being. Hence it follows that the contradictions supposed to exist between natural Science and Revelation must be derived from false and untenable opinions, either on the side of the supporters of natural science, or on the side of interpreters of the books of Revelation. For instance, when a proposition is asserted as an undisputed physical truth in natural science, which is in fact a mere supposition and theory of old or recent writers, and from such a supposition, although not proved, they argue against the assertions of the Bible; or, on the other hand, when the books of Revelation are supposed to state or deny what they by no means state or deny about facts established in natural science. These two excesses have

often been a source of bitter disagreement injurious alike to religion and natural science.

II. On this account I think that I do not err in concluding that writers on natural science and private theologians ought to be exceedingly cautious before asserting, as from the tripod of Apollo, either that any particular point of natural science which might appear inconsistent with Revelation is an undoubted truth; or that a particular passage in the Revealed Books absolutely implies a particular meaning contrary to the proved conclusions of natural science. With this modesty, forbearance and caution on both sides, natural science as well as the doctrine of Revelation would be better known and respected than by magisterial and absolute conclusions on points which may yet be considered uncertain and undecided. This admonition is founded on Ecclesiastes iii. 10, 11, where it is said, 'I have seen the trouble which God hath given to the sons of men to be exercised in it. He hath made all things good in their time, and hath delivered the world to their disputation, so that man cannot find out the work which God hath made from the beginning to the end.'

To the same effect is the prudent teaching of St. Augustin¹ and St. Thomas: 'In these kinds of questions there are two things to be observed: 1. that the truth of Scripture should be kept inviolate; 2. since the Holy Scriptures may admit of many interpretations, that no one should give any exclusive exposition to them; because if it be proved for certain that what some one believed to be the meaning of the Scripture should be proved false, and nevertheless such a one should presumptuously assert it, through this the Scripture would be scoffed at by infidels, and the way for conversion precluded to them.'²

¹ St. August. lib. i. *super Gen.* ad lit. cap. 18, prope fin. tom. 3, et lib. xii. *Conf.* cap. 23 et 24 in princip. D. Thom. Pt. I. quæst. 68, art. 1.

² In ejusmodi quæstionibus duo sunt observanda. Primo quidem ut

III. I will now explain the subject of this chapter by two very marked events, viz. the facts connected with the creation, as they are related in Genesis, and what natural sciences tell us about the same; and the facts relating to the flood of Noah.

If private theologians will insist upon taking in a material sense the words of the Bible about the creation, without using the necessary interpretation; and, on the other hand, if naturalists are bent only on pointing out contradictions and disagreements between discoveries in natural sciences and the wording of Revelation, it would follow that a believer in the Bible could not be a philosopher, and a philosopher could not be a believer in Revelation; not because natural science and Revelation are or can be at variance, but merely because unfounded assertions of prejudiced minds are substituted for the real meaning of Revelation, or the real discoveries of science. The Bible says, 'In the beginning God created heaven and earth,' &c. If these words be understood to mean that, in the beginning of six days of twenty-four hours, like our present days, and in the following days God made and disposed all creation, and created the first man and woman, and that from the said six days we must date the very first existence of everything and of our earth; while the alleged discoveries of geology cause us to infer that the earth may have existed, not only six thousand, but perhaps hundreds and millions of thousands of years; it would thence follow, either that we should be sceptical by denying the evidence of physical facts, or unbelievers by denying the truth of Revelation.

Descending now to particulars, we observe that the Bible, before touching upon the distinction of the six days, says, 'in

veritas Scripturæ inconcusse teneatur. Secunde, cum Scriptura divina multipliciter exponi possit, quod nulli expositioni aliquis ita præcise inhæreat, ut, si certa ratione constiterit, hoc esse falsum quod aliquis sensum Scripturæ esse credebat, id nihilominus asserere presumat, ne Scriptura ex hoc ab infidelibus derideatur, et ne eis via credendi precludatur.

the beginning God created heaven and earth.' The heaven and the earth were then created in the *beginning*. Who can now say how many hundreds and thousands or millions of years are implied by the term in the beginning, '*in principio?*' Certainly, in the first verse of the Gospel of St. John, the term '*In principio*' applied to the existence of the Word of God, means from all eternity, before all time. In consequence, the words '*in the beginning*' may furnish to geologists as many myriads of years as is necessary to them to explain the objects found imbedded in the crust of the earth. I do not assent to the opinion of those who consider each of the six days of creation as unlimited periods, though in the Bible the word *day* has many meanings. This is not necessary to my argument. We read that, on the fourth day of our present creation, the sun, moon, and stars were made; at the same time we understand that the heaven and earth were created in the beginning. This apparent discrepancy will vanish if we consider the meaning of the word *made* (*fecit*), which in the original Hebrew is *asah*. It sometimes means a creation, at other times a transition of an object from one state to another. If then we say that the sun, already created in the beginning, was made to appear on the earth clearly on the fourth day of our creation, we are not far from the meaning of the Bible, and naturalists have no reason to cavil with Revelation. The same reasoning may be applied to the expressions of the following days.

IV. It is true that the revolution of the earth around the sun, hinted at by old Nicetas, asserted by Copernicus, held by Galileo, established by the laws discovered by Kepler, explained by Newton, and physically proved by modern astronomers; it is true, I say, that nothing is said in Genesis about this fact, now so clearly established. But observe, that nothing is said in Genesis, or elsewhere, contradictory to this magnificent discovery; as also that nothing is there said in

favour of those old and exploded ideas of ancient astronomers, who imagined that the heavens were made of solid glass, holding the stars like precious stones set in a common frame. Revelation, as I have already stated in a previous chapter, is not given to instruct us in physics or astronomy or geology or anthropology, but in order to direct our minds and actions towards a supernatural future end. On this account we see that the Bible uses popular language in its expressions; as, for instance, that the sun rises and goes down and culminates at noon, &c.

If these and similar expressions give ground to naturalists to argue against Revelation, I dare to say, that they are more foolish than they imagine the Bible to be; as they themselves, in our clear blaze of astronomical knowledge, knowing that our earth revolves on her own axis daily, causing the appearance of the sun rising and going down, yet they themselves use the expressions at '*sunrise*,' '*sunset*,' &c.

V. Having shown that there is no contradiction between the teaching of Genesis and the discoveries of natural science in the principal fact relative to the creation of the world in general, we must now pass to the facts relative to the creation of man in particular. In Genesis we read that God made man out of the dust of the earth. This expression is usually taken in its natural meaning, that the Almighty, by an immediate act of His Will, or through the ministration of His angels, made the body of Adam out of the already existing earth. Then his soul was created and infused into the body so formed, and at that moment Adam was a living human being. We have before spoken of the intellectual soul of man, which soul cannot come forth from any natural development of bodily substance; and it is a supernatural effect of the creative power of God, exercised by Him according to a law fixed by Himself relating to human generation. We are now speaking of man's body only. The assertors of

natural development and selection, who maintain that the body of man is derived from lower forms of beings, and these lower forms from a single monad, admitting the creation of all things by God, are obliged to give a different explanation to the quoted words in Genesis; and, in accordance with their system, they must say that man's body was taken out of the dust of the earth, not immediately, but through the medium of lower beings, by some slow natural evolution.

With reference to this point, a prudent Christian philosopher, in accordance with the advice of St. Augustine, quoted by St. Thomas, will abstain from calling this view that of unbelievers or infidels, because it is not said in express terms in the Bible, that man's body was formed immediately by the hand of God; and, therefore, we are not bound to hold the interpretation commonly put upon the words of the Bible (Gen. i. 25, Matthew xix. 4) as absolutely certain. Should solid proofs be brought forward by naturalists in support of their theory, we should be prepared to modify our opinion upon the right interpretation of the words of sacred Scripture. But, until this proof is forthcoming, we cannot depart from the obvious sense of the passages we meet with in the Scripture.

VI. There is another important question to be considered relating to the period in which the first man was created. As this point has been touched upon in a former chapter, I beg the reader to recall to his mind what has been there stated. He will conclude that the present generation from Adam must be limited to a comparatively short time. Besides, there are no facts in history to disprove the statement derived from the Bible. Observe that, in Genesis, the ages of the patriarchs descended from Adam are given, yet there it is not said definitively how many years precisely are to be numbered between Adam and Noah. In consequence, there are about one hundred and forty various opinions, more or less probable,

respecting it, but none quite certain amongst chronologists. For instance, according to the computation of the old Jews, Adam's creation took place three thousand seven hundred and sixty years before the Christian era. According to the reckoning of the Abyssinians, Adam was created five thousand four hundred and ninety-three years before Christ. The Constantinopolitan era fixed it at the year five thousand five hundred and eight. More recent chronologists put it four thousand four hundred years before our Lord's birth. Taking the highest number of five thousand five hundred and eight, and adding to this our present era, 1872, we have seven thousand three hundred and eighty years, as the furthest epoch of the creation of Adam from our times; an epoch many thousand years removed from all profane records. Although this time be diminished by more than one thousand seven hundred years, according to the shortest chronology, the creation of Adam will still be thousands of years previous to all profane records.

VII. In fact Herodotus, one of the earliest historians, wrote two thousand years after the time of Noah, and it appears that the most ancient monarchies and nations are all not only posterior to the creation of Adam, but also to the flood of Noah. The kingdom of Assyria, Nineveh, Semiramis, coincide to the time of Abraham. The kingdom of Inachus and Phoronei is put in the time of Jacob. The conflagration of Troy happened at the time of Samson and Eli. The Olympiads date only from the end of Hosea, king of Judah. Rome was founded towards the end of the life of another Jewish king, Joathan. In a former chapter we have proved that the given epochs of the Chinese and Indian empires are mere fables; consequently there is no historical proof that our present generation is anterior to Adam. So the statement of Genesis,¹ that from the three sons of Noah *all mankind was*

¹ Gen. ix. 19.

spread over the whole earth, stands unshaken as an historical fact which cannot be disproved, and must be admitted by everyone who admits that the mathematical deductions in algebra and the proofs derived from phenomena or experiments in physics, so, equally with historical facts, we must admit their moral certainty when asserted by reliable authority. It would be ridiculous to search for metaphysical or physical evidence where these criteria can by no means be found. History pertains to the category of moral, and not of mathematical or physical truths. Should any person deny or call in doubt that Cicero, or Julius Cæsar, or Babylon existed, on the ground that these facts cannot be physically or mathematically proved, he would certainly be considered both ridiculous and unreasonable. Hence it is clear that there is no contradiction between revelation and profane history in what relates to the beginning and the spread of mankind over the earth.

VIII. Some might here repeat the objection already answered in a former chapter, and say, The excavations made in the crust of the earth, and the implements and remains of rational beings found there, at certain depths and with fossils; these, better than any history written by the hand of man, witness and proclaim that they existed centuries and thousands of years before the time assigned to the creation of Adam. We must refer the reader to the chapter on that subject, in which some good reasons have been adduced to show, that the deductions made from the site in which these very implements have been found are not sufficiently conclusive to prove that they existed previous to the time of Adam. Anyhow, if the beings to whom these remains belong be supposed to have existed before the time of Adam, I repeat, that they do not contradict the statement of the Bible, because they would pertain to some other kind of rational beings who existed, perhaps, with those fossil trees and animals, &c., which are

considered to belong to former periods of our earth ; which trees, animals, &c., entirely perished at different periods with the supposed former inhabitants of our earth. The Revelation which is given to us, the descendants of Adam, has no relation with beings who might have existed on, and disappeared from the face of the earth. Revelation, I repeat it, is not given to man to satisfy his curiosity, but solely to direct him in the path of justice, to obtain everlasting happiness, according to St. Paul : '*Habetis fructum vestrum in sanctificationem ; finem vero vitam æternam.*'

The opinion that there may have formerly existed other kinds of rational beings before the present descendants of Adam, instead of being opposed to the Bible, if extended and enlarged to other planets and to the system of the stars, impresses our minds with a very sublime idea of the greatness of the Creator, in accordance with the expressions of the prophets. Suppose, then, that the Creator, with an act of His almighty will, calling the universe into existence, had not limited the number and kind of rational beings to the present generation from Adam and to our own little earth alone, but had extended the creation of rational beings to many other illimited varieties and degrees, perhaps in a perfection higher than we have attained, and had placed them in some of the planets, for instance in Jupiter or Saturn : suppose that as our sun is surrounded by its planets, so the other stars be equally surrounded by their planetary systems, and their planets also be inhabited by different kinds of intelligent beings, what a grand idea must we not then conceive of the universe and of the greatness of its Creator ! Filled with this idea, truly might we with reason exclaim : 'The heavens declare the glory of God, and the firmament shows the work of His hands.' It is true that this idea would humble the pride of man, who in comparison would appear less than he is. But this in itself contains nothing contrary to Revelation or

to reason. Nay, by analogy, this opinion might be considered probable by observing that we, being nearer to the Sun than Jupiter and Saturn, have only one moon; whilst Jupiter, much larger, and more remote than our earth, has four moons; and Saturn, more remote still from the sun, has seven satellites and a luminous ring. After these hints about the systems of the heavens, who can imagine that it could be in any way urged against the Bible, that there might have been not one only, but many unlimited kinds of intelligent beings upon our earth before our generation propagated from Adam?

IX. Now I am to speak about the flood of Noah, and I am equally prepared to show, that the description of Moses is a fact, and not contradictory to any principle in physical science.

The sceptics, who do not admit anything as certain, deny altogether the fact of the flood of Noah. Not to convince them, but to show the reader how wrong they are, I observe that the tradition of a great flood is common to all nations of the earth. The Greek and Roman poets are full of the deluge of Ogyges, Pyrrha, and Deucalion. Every student of rhetoric knows by heart those famous verses of Horace, that Jupiter

Terruit gentes, grave ne rediret
Sæculum Pyrrhæ nova monstra questæ;
Omne cum Proteus pecus egit altos
Visere montes:

Piscium et summâ genus hæsit ulmo,
Nota quæ sedes fuerat columbis;
Et superjecto pavidæ natârunt
Æquore damæ.¹

This tradition was also current among the Chaldees²: in their records it is mentioned, that a general flood happened in the days of Kisuthrus, the tenth king of Babylon. Chronos

¹ Hor. lib. i. Od. 2.

² Berosus, Cory's *Ancient Fragments*. Fabricius, *Bibliotec. Græca*, xiv.

appeared to Kisuthrus, informed him of the coming flood which would destroy all wicked people; ordered him to build a boat for himself, his relatives and friends; and to take into his boat different kinds of animals and birds, with the necessary provisions, &c. This is in substance the narrative given by Moses. The Egyptians held that their Mercury engraved the principal sciences on columns which stood unmoved and resisted the Deluge.¹ The Chinese also have hinted about a great flood under the Emperor Yao, when all the hills were covered with water, and also the mountains, so that it appeared that the waters touched the heavens. The history given by Moses is found also among the Hindoos.² The Indians, with many additional fables of their own, mention a great flood upon the earth. Their pious monarch, Satyaurata, and seven other holy men with their wives, were saved in a big ship given to them by Vichnon, who was transformed into a fish, and, by means of a very long sea-serpent, tied the ship as with a rope, till Satyaurata and his party were rescued, while all wicked men were drowned in the flood. With the discoveries of Mexico and North America the same tradition was found existing there from time immemorial. This fact, besides confirming the flood, gives us a new argument to prove, that these very tribes are in some way connected with the descendants of Noah, and carried the tradition with them. I limit myself to the Mexicans. Pictures representing the great flood, and common accounts relating to it, have been found amongst the Azteques, the Mizteques, the Zapotheques, the Flascalteques, and the Machoacans. Cox-Cox, or Zezpi (their Noah), with his wife Xochiquetzal, during a horrible flood which destroyed all mankind, are saved in a ship, where they had embarked with their children with many

¹ Cory's *Ancient Fragments*. *Chron. King*. pt. i. ch. 1.

² *Chronol. of Hindoos*, W. Jones. vol. ii. *Asiatic Researches*, 'Quæst. Mosaic.' London, 1812.

animals and provisions. . . . When the waters were diminishing towards the end of the flood, Cox-Cox sent out of the ship a falcon, which, having found plenty of food from the corpses floating on the waters, did not return. After Cox-Cox had sent out a dove, it at last came back to him with a green bough of a tree.

X. These few hints will sufficiently show that the account of the flood of Noah is not an invention of Moses, but must be a fact which really happened. Moses could not be ignorant of what happened at a time when the memory of this event must have been fresh in his family, descending from Noah through Sem. Sem, the son of Noah, after coming out of the ark, lived nearly five hundred years, and knew Abraham, Isaac, and Jacob. This last was about forty years old when Sem died; Jacob certainly lived some time with Amram, the father of Moses. In consequence, the fact of the flood, which happened eight hundred years before Moses, was brought to his notice through the reliable accounts of three of his ancestors, Sem, Jacob, Amram. As, on one side, Moses could not be ignorant of this fact, so on the other side there is no reason to suppose that he maliciously forged it.

All the people led by him out of Egypt and ruled by him for forty years in the wilderness would have convicted him of falsehood; as they themselves must have known equally through tradition the reality of the event. Besides, the slightest suspicion of forgery is dissipated when we consider the holiness and integrity of this great patriarch, so highly praised both in the Old and New Testaments. I cite the New Testament, because in it also the flood of Noah is alluded to as an historical fact.

Notwithstanding all this evidence, there are some educated

¹ Herrera, *Hist. gén. des voyages*, xviii.

² 1 Pet. iii. 20. Mat. xxiv. 27. Luke xvii. 27.

people who think that there are circumstances in the history of the flood irreconcilable with our improved scientific knowledge. The reader is no doubt acquainted with the works on this subject by Colenso, bishop of Natal; and the contradictions he has endeavoured to establish to disprove the existence of the flood. It is not my intention to prove here how grossly Bishop Colenso was mistaken in his statements, which are found to be groundless when Genesis is rightly understood, and when Genesis is not made to state what it does not say.

XI. First of all, Christians admitting the Bible as an inspired book, are aware that the Almighty, being the author of all nature, is above the laws of nature; which laws are nothing else than the will of God, affixed to his creation; and that, in consequence, in the fact of the flood of Noah, he may have done everything related by Moses, though it be above the general and ordinary laws of nature; though miracles upon miracles would be necessary to explain the circumstances of this extraordinary effect of his justice against his sinful obstinate creatures. There are illustrious writers who have endeavoured to prove, that the Mosaic narrative, in its plain wording, is in accordance with reason, without having recourse to miracles.¹ But without admitting or denying the above opinion, I think that I shall be able to show that the flood of Noah, when the words of Moses are understood in their real meaning, does not contradict our common sense and knowledge of natural science.

¹ See, amongst other interpreters, Jacobi Tirini *Commentaria in Genesi*, c. vii., where all the principal species of animals are said not to exceed one hundred and twenty-five in number; and it is stated that there are only six species larger than the horse and a few equal, and a great many smaller than sheep: so that all animals might have been stabled in one of the three compartments of the ark. In quoting these particulars, I do not answer for their correctness and accordance with our improved knowledge in natural sciences.

XII. But I wish first to bring to the reader's mind an old historical fact. Amongst the works published by Vossius in the seventeenth century, there is one on the flood of Noah, called by him 'not universal' (*De Diluvio non universali*). In the year 1685, the Roman Congregation which presides over the publication of books called of the Index, met to examine this work of Vossius. As the famous F. Mabillon, of the Benedictine Order, happened to be then in Rome, he was called in by the cardinals of the Congregation, in order to give his opinion on the statement of Vossius. Mabillon observed that Vossius called his opinion probable, not certain; that it contained nothing against faith and morals; that it was proposed in order to answer better to objections of unbelievers against the flood; that it is useful to admit or tolerate various interpretations of the Bible, when they are not in open opposition to the Holy Writings and to the Church; that many Catholic writers with the clever De Vio, Cardinal Gaetano, had already expressed the opinion that the water of the flood did not cover the tops of the highest mountains, &c. &c. The opinion of Mabillon was received with praise by the Congregation and acted upon.¹

XIII. I now come to my remarks on the argument. First, we often find in the Bible, in accordance with eastern language, general expressions which may, and indeed often must, be taken in a limited sense; as is also the case in modern languages. Consequently, in the account of the flood of Noah, when it is said, 'All things that are in the earth shall be consumed,' 'Thou shalt take unto thee of all food that may be eaten,' 'Every living creature of all flesh thou

¹ De Massuel (*Annales Ord. St. Benedicti*, tom. v. p. 18, No. 24): 'Romæ dum moratur (Mabillon), ad Congregationem Indicis inter consultores vocatus, sententiam pronunciare suffragiumque promovere jussus de quibusdam libris Vossianis de Diluvio non universali: tanta cum eruditione et modestiâ protulit, ut mirati Cardinales secundum eum sententiam dixerint.'

shalt bring into the ark,' 'The water of the flood overflowed the earth, and all the high mountains under the whole heaven were covered,' 'The water was fifteen cubits higher than the mountains,' &c. &c.—all these and other similar expressions may be, and often must be, taken in a limited sense. We may then fairly think that what is there meant by the whole earth, is so much only of the whole earth as was inhabited by the antediluvians, and by the whole heaven, the heavens above them, and that the mountains mentioned refer only to the mountains of the district where they all lived, and so of all the animals and fowls and cattle common amongst them.

XIV. Secondly: With respect to the capacity of the ark, its measure is given in cubits. There was the common cubit measuring six palms, and the sacred cubit which was one palm longer. We may say, then, that the sacred cubit was not less than two feet. The ark, measuring three hundred by fifty, contained fifteen thousand square cubits; and as it had three compartments or floors, the total area of the three floors was forty-five thousand square cubits, to accommodate eight persons and the various species of animals and birds, and the necessary provisions for them all for a year.

Thirdly: Speaking now of the animals shut up in the ark, it is true that we are accustomed to see printed and hear described poetically the entry of all species of the lower creatures into the ark, as lions, tigers, panthers, and all the tribe of serpents and birds. But I dare to say that the narrative of Moses does not imply that there were in the ark all those immensely varied species. The order given by the Lord to Noah was simply this: 'Of all clean beasts take seven and seven, the male and the female; but of the beasts that are unclean two and two, the male and the female. Of the fowls also of the air seven and seven, the male and the female, that seed may be saved upon the face of the whole earth.' If then the general expression *upon the face of the whole earth* mentioned here,

and other times repeated in this narrative, be limited to the birds and animals, &c. of the place in which the antediluvians lived, then it is clear that the capacity of the ark was amply sufficient to hold them all.

XV. Fourthly. The flood was sent to destroy all mankind who were not in the ark; and this part of the narrative is to be taken rigorously in its natural sense, as it is evidently affirmed both in the Old and New Testaments:—‘And God spared not the original world, but preserved Noah, the eighth person . . . bringing in the flood upon the world of the ungodly:’¹ ‘Noah entered the ark, and they knew not till the flood came and took them all away:’² ‘They did eat and drink, they married wives and were given in marriage, until the day Noah entered the ark, and the flood came and destroyed them all:’³ ‘In the days of Noah, when the ark was building, wherein a few, that is, eight souls, were saved by water.’⁴ Therefore, there is no doubt left that all mankind perished during the flood, except the eight persons saved in the ark.⁵

XVI. Fifthly. Should it be asked whether the antediluvians were spread over the whole earth, I answer, that there are good reasons to think that they were not, and that they occupied only as much land as was necessary for their subsistence.

¹ 2 Pet. ii. 5.

² Matt. xxiv. 28.

³ Luke xvii. 27.

⁴ 1 Pet. iii. 20.

⁵ No doubt is left by the Holy Writings that their bodily life was lost, and none escaped; but it appears also certain, that their souls were not all sent into everlasting reprobation, as in St. Peter (1 Pet. iii. 20), is said, that our Lord, when He descended with His soul into the limbo of the Holy Fathers after his death, *preached*, namely announced, the redemption effected, and the imminent liberation also to those who *had been sometime incredulous . . . in the days of Noah when the ark was a building*. Which expressions imply the fact, that they who at first were incredulous, at the coming of the flood, during the forty days, had been converted and obtained remission of their sins.

They certainly had one language, because the multiplication of languages took place after the flood. On account of their long lives their family union was much greater than it is now. I may add also, that perhaps their number was not so great as many writers have stated. In Genesis, when mention is made of the good patriarchs, and the age is given when they had their first son, we find that

Seth, the son of Adam, was one hundred and five years old when he had Enos.

Enos was ninety when he had Cainaan.

Cainaan was seventy when he had Malaleel.

Malaleel was sixty-five when he had Jared.

Jared was one hundred and sixty-two when he had Enoch.

Enoch was sixty-two when he had Mathusalem.

Mathusalem was one hundred and eighty-seven when he had Lamech.

Lamech was one hundred and eighty-two when he had Noah.

Noah was five hundred years old when he had his three sons, Sem, Cham, Japheth; and Shem, Cham, or Ham, Japheth, when they entered with their wives into the ark, had no children; and they were about one hundred years old. Besides, in chap. vi., after the catalogue of the good patriarchs, it is said, 'And after that man began to be multiplied upon the earth,' &c. they became wicked; then came the threat of the flood, &c. This implies that the antediluvians were not very much multiplied, nor separated far from each other.

XVII. Sixthly. Speaking of the generality of the flood, after the above remarks we may conclude, that it extended not much further than all the land occupied by man. Certainly, reading the description of this cataclysm in Genesis, we do not find it mentioned that the sea flowed over its limits. We

simply read, 'I will bring the water of a great flood upon the earth. . . . I will rain upon the earth forty days and forty nights. . . . All the fountains of the great deep were broken up, . . . and the flood gates of heaven were opened, and the rain fell upon the earth.' All the above expressions may be well understood of a partial though extraordinary flood ; which, in respect to all mankind and to all the country occupied by them, and to all the animals and birds of their district, was in fact universal, though it did not extend over the whole surface of the earth. Let us suppose that all men then living occupied a sufficiently extensive territory, fertile and abundant in every production requisite and useful to a life of comfort ; that district was perhaps not far from mount Taurus, and was neighbouring to Ararath or the Armenian hills : suppose that torrents of rain from the clouds suddenly came down upon them, while the rivers, driven back by contrary winds and swollen by the torrents of rain during forty days and forty nights, overflowed everywhere around and within their territory : suppose that the same mighty wind, continually blowing contrarily, hindered the sudden flow of waters towards the lower parts, while the barrier of the Armenian hills kept the waters upon the high land ; in this supposition, which is in accordance with the general laws of nature, directed always by Providence to punish obstinately wicked people, there will be no difficulty in understanding why none of the unhappy creatures could escape drowning ; principally, if we admit, what is very probable, that the torrents of rain were accompanied by thunderbolts bursting down from the terribly dark canopy of clouds hanging over the doomed land.

The above remarks and the probable explanation given of this great flood baffle all the objections of those who are ever discovering contradictions between Revelation and reason, and persuade themselves that they have conferred a great boon upon mankind, when they succeed in plunging them into

scepticism and incredulity. But scepticism and incredulity, though rooted deeply in man's mind, cannot make vain that word which, coming from the infallible Creator, stands always unshaken; and, while asserting everlasting happiness to the good, condemns the weakness and malice of unbelievers, as where, by the mouth of the inspired Doctor of the Gentiles, He says, 'The Lord Jesus shall be revealed from heaven, with the angels of his power, in a flame of fire, yielding vengeance to them who know not God, and who obey not the Gospel of our Lord Jesus Christ; who shall suffer eternal punishment in destruction from the face of the Lord and from the glory of His power.'¹

To conclude, I think that, as regards my subject, I have sufficiently shown that Revelation and reason, when viewed with impartial eye, will be seen to shake their friendly hands, and help each other in leading mankind to the finding and following of truth.

¹ 2 Thess. i. 7-9.

Vive, vale. Si quid novisti rectius istis
Candidus imperti; si non, his utere mecum.

Horace, *Epist.* i. 6.

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