went—"drawing forth the internal juice and marrow of the Scriptures for the explaining of things." Universal history from the third to the sixteenth century shows with what result. The dark ages owe their darkness to this fatal policy. Here and there, it is true, there were great men, such as Frederick II. and Alphonso X., who, standing at a very elevated and general point of view, had detected the value of learning to civilization, and, in the midst of the dreary prospect that ecclesiasticism had created around them, had recognized that science alone can improve the social condition of man.

The infliction of the death-punishment for difference of opinion was still resorted to. When Calvin caused Servetus to be burnt at Geneva, it was obvious to every one that the spirit of persecution was unimpaired. The offense of that philosopher lay in his belief. This was, that the genuine doctrines of Christianity had been lost even before the time of the Council of Nicea; that the Holy Ghost animates the whole system of Nature, like a soul of the world, and that, with the Christ, it will be absorbed, at the end of all things, into the substance of the Deity, from which they had emanated. For this he was roasted to death over a slow fire. Was there any distinction between this Protestant auto-da-fe and the Catholic one of Vanini, who was burnt at Toulouse, by the Inquisition, in 1629, for his "Dialogues concerning Nature?"

The invention of printing, the dissemination of books, had introduced a class of dangers which the persecution of the Inquisition could not reach. In 1559, Pope Paul IV. instituted the Congregation of the Index Expurgatorius. "Its duty is to examine books and manuscripts intended for publication, and to decide

whether the people may be permitted to read them; to correct those books of which the errors are not numerous, and which contain certain useful and salutary truths, so as to bring them into harmony with the doctrines of the Church; to condemn those of which the principles are heretical and pernicious; and to grant the peculiar privilege of perusing heretical books to certain persons. This congregation, which is sometimes held in presence of the pope, but generally in the palace of the Cardinal-president, has a more extensive jurisdiction than that of the Inquisition, as it not only takes cognizance of those books that contain doctrines contrary to the Roman Catholic faith, but of those that concern the duties of morality, the discipline of the Church, the interests of society. Its name is derived from the alphabetical tables or indexes of heretical books and authors composed by its appointment."

The Index Expurgatorius of prohibited books at first indicated those works which it was unlawful to read; but, on this being found insufficient, whatever was not permitted was prohibited—an audacious attempt to prevent all knowledge, except such as suited the purposes of the Church, from reaching the people.

The two rival divisions of the Christian Church—Protestant and Catholic—were thus in accord on one point: to tolerate no science except such as they considered to be agreeable to the Scriptures. The Catholic, being in possession of centralized power, could make its decisions respected wherever its sway was acknowledged, and enforce the monitions of the Index Expurgatorius; the Protestant, whose influence was diffused among many foci in different nations, could not act in such a direct and resolute manner. Its mode of procedure was, by raising a theological odium against an

offender, to put him under a social ban—a course perhaps not less effectual than the other.

As we have seen in former chapters, an antagonism between religion and science had existed from the earliest days of Christianity. On every occasion permitting its display it may be detected through successive centuries. We witness it in the downfall of the Alexandrian Museum, in the cases of Erigena and Wiclif, in the contemptuous rejection by the heretics of the thirteenth century of the Scriptural account of the Creation; but it was not until the epoch of Copernicus, Kepler, and Galileo, that the efforts of Science to burst from the thraldom in which she was fettered became uncontrollable. In all countries the political power of the Church had greatly declined; her leading men perceived that the cloudy foundation on which she had stood was dissolving away. Repressive measures against her antagonists, in old times resorted to with effect, could be no longer advantageously employed. To her interests the burning of a philosopher here and there did more harm than good. In her great conflict with astronomy, a conflict in which Galileo stands as the central figure, she received an utter overthrow; and, as we have seen, when the immortal work of Newton was printed, she could offer no resistance, though Leibnitz affirmed, in the face of Europe, that "Newton had robbed the Deity of some of his most excellent attributes, and had sapped the foundation of natural religion."

From the time of Newton to our own time, the divergence of science from the dogmas of the Church has continually increased. The Church declared that the earth is the central and most important body in the universe; that the sun and moon and stars are tributary to it. On these points she was worsted by astron-

omy. She affirmed that a universal deluge had covered the earth; that the only surviving animals were such as had been saved in an ark. In this her error was established by geology. She taught that there was a first man, who, some six or eight thousand years ago, was suddenly created or called into existence in a condition of physical and moral perfection, and from that condition he fell. But anthropology has shown that human beings existed far back in geological time, and in a savage state but little better than that of the brute.

Many good and well-meaning men have attempted to reconcile the statements of Genesis with the discoveries of science, but it is in vain. The divergence has increased so much, that if has become an absolute opposition. One of the antagonists must give way.

May we not, then, be permitted to examine the authenticity of this book, which, since the second century, has been put forth as the criterion of scientific truth? To maintain itself in a position so exalted, it must chal-

lenge human criticism.

In the early Christian ages, many of the most eminent Fathers of the Church had serious doubts respecting the authorship of the entire Pentateuch. I have not space, in the limited compass of these pages, to present in detail the facts and arguments that were then and have since been adduced. The literature of the subject is now very extensive. I may, however, refer the reader to the work of the pious and learned Dean Prideaux, on "The Old and New Testament connected," a work which is one of the literary ornaments of the last century. He will also find the subject more recently and exhaustively discussed by Bishop Colenso. The following paragraphs will convey a sufficiently distinct impression of the present state of the controversy:

The Pentateuch is affirmed to have been written by Moses, under the influence of divine inspiration. Considered thus, as a record vouchsafed and dictated by the Almighty, it commands not only scientific but universal consent.

But here, in the first place, it may be demanded, Who or what is it that has put forth this great claim in its behalf?

Not the work itself. It nowhere claims the authorship of one man, or makes the impious declaration that it is the writing of Almighty God.

Not until after the second century was there any such extravagant demand on human credulity. It originated, not among the higher ranks of Christian phi losophers, but among the more fervid Fathers of the Church, whose own writings prove them to have been unlearned and uncritical persons.

Every age, from the second century to our times, has offered men of great ability, both Christian and Jewish, who have altogether repudiated these claims. Their decision has been founded upon the intrinsic evidence of the books themselves. These furnish plain indications of at least two distinct authors, who have been respectively termed Elohistic and Jehovistic. Hupfeld maintains that the Jehovistic narrative bears marks of having been a second original record, wholly independent of the Elohistic. The two sources from which the narratives have been derived are, in many respects, contradictory of each other. Moreover, it is asserted that the books of the Pentateuch are never ascribed to Moses in the inscriptions of Hebrew manuscripts, or in printed copies of the Hebrew Bible, nor are they styled "Books of Moses" in the Septuagint or Vulgate, but only in modern translations.

It is clear that they cannot be imputed to the sole authorship of Moses, since they record his death. It is clear that they were not written until many hundred years after that event, since they contain references to facts which did not occur until after the establishment of the government of kings among the Jews.

No man may dare to impute them to the inspiration of Almighty God—their inconsistencies, incongruities, contradictions, and impossibilities, as exposed by many learned and pious moderns, both German and English, are so great. It is the decision of these critics that Genesis is a narrative based upon legends; that Exodus is not historically true; that the whole Pentateuch is unhistoric and non-Mosaic; it contains the most extraordinary contradictions and impossibilities, sufficient to involve the credibility of the whole—imperfections so many and so conspicuous that they would destroy the authenticity of any modern historical work.

Hengstenberg, in his "Dissertations on the Genuineness of the Pentateuch," says: "It is the unavoidable fate of a spurious historical work of any length to be involved in contradictions. This must be the case to a very great extent with the Pentateuch, if it be not genuine. If the Pentateuch is spurious, its histories and laws have been fabricated in successive portions, and were committed to writing in the course of many centuries by different individuals. From such a mode of origination, a mass of contradictions is inseparable, and the improving hand of a later editor could never be capable of entirely obliterating them."

To the above conclusions I may add that we are expressly told by Ezra (Esdras ii. 14) that he himself, aided by five other persons, wrote these books in the space of forty days. He says that at the time

of the Babylonian captivity the ancient sacred writings of the Jews were burnt, and gives a particular detail of the circumstances under which these were composed He sets forth that he undertook to write all that had been done in the world since the beginning. It may be said that the books of Esdras are apocryphal, but in return it may be demanded, Has that conclusion been reached on evidence that will withstand modern criticism? In the early ages of Christianity, when the story of the fall of man was not considered as essential to the Christian system, and the doctrine of the atonement had not attained that precision which Anselm eventually gave it, it was very generally admitted by the Fathers of the Church that Ezra probably did so compose the Pentateuch. Thus St. Jerome says, "Sive Mosem dicere volueris auctorem Pentateuchi, sive Esdram ejusdem instauratorem operis, non recuso." Clemens Alexandrinus says that when these books had been destroyed in the captivity of Nebuchadnezzar, Esdras, having become inspired prophetically, reproduced them. Irenæus says the same.

The incidents contained in Genesis, from the first to the tenth chapters inclusive (chapters which, in their bearing upon science, are of more importance than other portions of the Pentateuch), have been obviously compiled from short, fragmentary legends of various authorship. To the critical eye they all, however, present peculiarities which demonstrate that they were written on the banks of the Euphrates, and not in the Desert of Arabia. They contain many Chaldaisms. An Egyptian would not speak of the Mediterranean Sea as being west of him, an Assyrian would. Their scenery and machinery, if such expressions may with propriety be used, are altogether Assyrian, not Egyptian. They were such rec-

ords as one might expect to meet with in the cuneiform impressions of the tile libraries of the Mesopotamian kings. It is affirmed that one such legend, that of the Deluge, has already been exhumed, and it is not beyond the bounds of probability that the remainder may in like manner be obtained.

From such Assyrian sources, the legends of the creation of the earth and heaven, the garden of Eden, the making of man from clay, and of woman from one of his ribs, the temptation by the serpent, the naming of animals, the cherubim and flaming sword, the Deluge and the ark, the drying up of the waters by the wind, the building of the Tower of Babel, and the confusion of tongues, were obtained by Ezra. He commences abruptly the proper history of the Jews in the eleventh chapter. At that point his universal history ceases; he occupies himself with the story of one family, the descendants of Shem.

It is of this restriction that the Duke of Argyll, in his book on "Primeval Man," very graphically says: "In the genealogy of the family of Shem we have a list of names which are names, and nothing more to us. It is a genealogy which neither does, nor pretends to do, more than to trace the order of succession among a few families only, out of the millions then already existing in the world. Nothing but this order of succession is given, nor is it at all certain that this order is consecutive or complete. Nothing is told us of all that lay behind that curtain of thick darkness, in front of which these names are made to pass; and yet there are, as it were, momentary liftings, through which we have glimpses of great movements which were going on, and had been long going on beyond. No shapes are distinctly seen. Even the direction of those movements can only be

guessed. But voices are heard which are as the voices of many waters." I agree in the opinion of Hupfeld, that "the discovery that the Pentateuch is put together out of various sources, or original documents, is beyond all doubt not only one of the most important and most pregnant with consequences for the interpretation of the historical books of the Old Testament, or rather for the whole of theology and history, but it is also one of the most certain discoveries which have been made in the domain of criticism and the history of literature. Whatever the anticritical party may bring forward to the contrary, it will maintain itself, and not retrograde again through any thing, so long as there exists such a thing as criticism; and it will not be easy for a reader upon the stage of culture on which we stand in the present day, if he goes to the examination unprejudiced, and with an uncorrupted power of appreciating the truth, to be able to ward off its influence."

What then? shall we give up these books? Does not the admission that the narrative of the fall in Eden is legendary carry with it the surrender of that most solemn and sacred of Christian doctrines, the atonement?

Let us reflect on this! Christianity, in its earliest days, when it was converting and conquering the world, knew little or nothing about that doctrine. We have seen that, in his "Apology," Tertullian did not think it worth his while to mention it. It originated among the Gnostic heretics. It was not admitted by the Alexandrian theological school. It was never prominently advanced by the Fathers. It was not brought into its present commanding position until the time of Anselm Philo Judæus speaks of the story of the fall as symbolical; Origen regarded it as an allegory. Perhaps some of the Protestant churches may, with reason, be accused

of inconsistency, since in part they consider it as mythical, in part real. But, if, with them, we admit that the serpent is symbolical of Satan, does not that cast an air of allegory over the whole narrative?

It is to be regretted that the Christian Church has burdened itself with the defense of these books, and voluntarily made itself answerable for their manifest contradictions and errors. Their vindication, if it were possible, should have been resigned to the Jews, among whom they originated, and by whom they have been transmitted to us. Still more, it is to be deeply regretted that the Pentateuch, a production so imperfect as to be unable to stand the touch of modern criticism, should be put forth as the arbiter of science. Let it be remembered that the exposure of the true character of these books has been made, not by captious enemies, but by pious and learned churchmen, some of them of the highest dignity.

While thus the Protestant churches have insisted on the acknowledgment of the Scriptures as the criterion of truth, the Catholic has, in our own times, declared the infallibility of the pope. It may be said that this infallibility applies only to moral or religious things; but where shall the line of separation be drawn? Omniscience cannot be limited to a restricted group of questions; in its very nature it implies the knowledge of all,

and infallibility means omniscience.

Doubtless, if the fundamental principles of Italian Christianity be admitted, their logical issue is an infallible pope. There is no need to dwell on the unphilosophical nature of this conception; it is destroyed by an examination of the political history of the papacy, and the biography of the popes. The former exhibits all the errors and mistakes to which institutions of a

confessedly human character have been found liable; the latter is only too frequently a story of sin and shame.

It was not possible that the authoritative promulgation of the dogma of papal infallibility should meet among enlightened Catholics universal acceptance. Serious and wide-spread dissent has been produced. A doctrine so revolting to common-sense could not find any other result. There are many who affirm that, if infallibility exists anywhere, it is in œcumenical councils, and yet such councils have not always agreed with each other. There are also many who remember that councils have deposed popes, and have passed judgment on their clamors and contentions. Not without reason do Protestants demand, What proof can be given that - infallibility exists in the Church at all? what proof is there that the Church has ever been fairly or justly represented in any council? and why should the truth be ascertained by the vote of a majority rather than by that of a minority? How often it has happened that one man, standing at the right point of view, has descried the truth, and, after having been denounced and persecuted by all others, they have eventually been constrained to adopt his declarations! Of many great discoveries, has not this been the history?

It is not for Science to compose these contesting claims; it is not for her to determine whether the criterion of truth for the religious man shall be found in the Bible, or in the ecumenical council, or in the pope. She only asks the right, which she so willingly accords to others, of adopting a criterion of her own. If she regards unhistorical legends with disdain; if she considers the vote of a majority in the ascertainment of truth with supreme indifference; if she leaves the claim of infallibility in any human being to be vindicated by the

which in these matters she maintains is what she displays toward her own doctrines. Without hesitation she would give up the theories of gravitation or undulations, if she found that they were irreconcilable with facts. For her the volume of inspiration is the book of Nature, of which the open scroll is ever spread forth before the eyes of every man. Confronting all, it needs no societies for its dissemination. Infinite in extent, eternal in duration, human ambition and human fanaticism have never been able to tamper with it. On the earth it is illustrated by all that is magnificent and beautiful, on the heavens its letters are suns and worlds.

CHAPTER IX.

CONTROVERSY RESPECTING THE GOVERNMENT OF THE UNIVERSE.

There are two conceptions of the government of the world: 1. By Providence; 2. By Law.—The former maintained by the priesthood.—Sketch of the introduction of the latter.

Kepler discovers the laws that preside over the solar system.—His works are denounced by papal authority.—The foundations of mechanical philosophy are laid by Da Vinci.—Galileo discovers the fundamental laws of Dynamics.—Newton applies them to the movements of the celestial bodies, and shows that the solar system is governed by mathematical necessity.—Herschel extends that conclusion to the universe.—The nebular hypothesis.—Theological exceptions to it.

Evidences of the control of law in the construction of the earth, and in the development of the animal and plant series.—They arose by Evolution, not by Creation.

The reign of law is exhibited by the historic career of human societies, and in the case of individual man.

Partial adoption of this view by some of the Reformed Churches.

Two interpretations may be given of the mode of government of the world. It may be by incessant divine interventions, or by the operation of unvarying law.

To the adoption of the former a priesthood will always incline, since it must desire to be considered as standing between the prayer of the votary and the providential act. Its importance is magnified by the power it claims of determining what that act shall be. In the pre-Christian (Roman) religion, the grand office of the

priesthood was the discovery of future events by oracles, omens, or an inspection of the entrails of animals, and by the offering of sacrifices to propitiate the gods. In the later, the Christian times, a higher power was claimed; the clergy asserting that, by their intercessions, they could regulate the course of affairs, avert dangers, secure benefits, work miracles, and even change the order of Nature.

Not without reason, therefore, did they look upon the doctrine of government by unvarying law with disfavor. It seemed to depreciate their dignity, to lessen their importance. To them there was something shock ing in a God who cannot be swayed by human entreaty, a cold, passionless divinity—something frightful in fatalism, destiny.

But the orderly movement of the heavens could not fail in all ages to make a deep impression on thoughtful observers—the rising and setting of the sun; the increasing or diminishing light of the day; the waxing and waning of the moon; the return of the seasons in their proper courses; the measured march of the wandering planets in the sky—what are all these, and a thousand such, but manifestations of an orderly and unchanging procession of events? The faith of early observers in this interpretation may perhaps have been shaken by the occurrence of such a phenomenon as an eclipse, a sudden and mysterious breach of the ordinary course of natural events; but it would be resumed in tenfold strength as soon as the discovery was made that eclipses themselves recur, and may be predicted.

Astronomical predictions of all kinds depend upon the admission of this fact—that there never has been and never will be any intervention in the operation of natural laws. The scientific philosopher affirms that