

tion, and in this manner has the crust of the earth been formed. The same general order of deposit exists all over the world. As a history of the earth, geology would be of little value were it not for the fossil remains of animals found in the different strata of the earth's surface. Here we find the tombs of animals which lived and died long before man appeared in the world. Remains of both marine and terrestrial animals are encased in these rocks as memorials of ages past and gone. By means of these we can not only read the local changes in the world at those periods, but we can also trace out more general conclusions, enabling us to compare geological time with the Scriptural account of these great changes. There are four distinct periods before the modern period in which man appears, and each of these periods has its several subdivisions. The lapse of time in each of these geological periods cannot be rightly estimated unless we examine more minutely into the subject. Take, for example, the Delta of the Mississippi. The time occupied in the formation of those enormous deposits, allowing for the immense quantity of the soil which is swept into the Gulf of Mexico, must be measured by tens of thousands of years. And yet this formation belongs to the modern period, because shell-fish and cypresses, products of the modern period, were alive when these deposits were commenced. Allowing 20,000 years for the accumulation of these deposits, which is a moderate estimate, if we multiply this 20,000 years by five, and this again by four, we shall be far below the requirements of geological time. In Nova Scotia coal measures are found having a thickness of 14,000 feet. Here are one hundred distinct fossil forests in which trees have grown up, died, and been buried, to be succeeded by other forests, and so on for a hundred times, yet this is but one formation of one Geological period. In the whole of these several periods the laws of nature remained the same. The sun, the dew and the rain fertilized the land. Distinct impressions of rain are found in the coal formation. The same wise ruler directed the affairs of this world by the same immutable laws. In the paleozoic period we find no higher order of creatures than fish, except a few small reptiles. We see vegetable productions of great size but with little variety. Plants of the lowest forms are found in that period growing to the height of great trees. The middle period was marked by an addition to the race of animals. Reptiles of every description peopled the earth, some with wings for flying, some with feet for walking on the land, and some with fins for swimming. These animals were in some instances of enormous dimensions. Still there was no evidence of any higher order of animals or of the existence of man. In the tertiary period we find mammals akin to the elephant. Reptiles had shrunk in their dimensions. The mastodon, the mammoth, and the megatherium walked the earth. We thus see a gradual rising in the complexity of nature.

III. We ask now, does the succession here laid down coincide with the evidence of the Bible.

In the Hebrew are many instances in the narration of events and elsewhere, in which the word *day* is used for an indefinite period, as, for instance, "in the day when the Lord created the heavens and the earth," "the great and notable day of the Lord," &c. It is impossible to find in the Hebrew a word expressing an indefinite period of time better than the word *day*, as used in these cases. A late writer gives the following ingenious explanation: He begins by asking in what manner this revelation was made to Moses. Was it by audible words, or by visions of the scenes to be described? It is more probable that the acts of creation were represented to him by a series of pictures passing in review before him, each period of creation called in the Bible a *day* being a separate representation; and, therefore, Moses may have called each one of these periods a *day*. But some object to this on the ground that it invalidates the fourth commandment. To this it may be answered that the work of creation was accomplished in six days or periods of time, and "He rested on the seventh day from all his work which he had made." We have no evidence to disprove the fact that this seventh day continued from that time down to the present. This present age of the world is the seventh day, and God having finished his work of

creation, is still resting from his labor, and so will continue to rest till the end of time, our short week being a type of the long creative week. This is the view taken by Hugh Miller, and the lecturer remarked that this last view of the subject was his own also.

The first act of creative wisdom in the order given, was the creation of light. There could have been no more appropriate introduction to the work than this great agent, including as it does, heat and electricity. The planetary hypothesis of La Place may enable us to give a conjectural explanation of this. The luminous matter now surrounding the sun may have originally occupied the whole space of the solar system. In the progress of things this nebulous mass of luminous matter gradually began to concentrate. As soon as this mass of matter came within the orbit of the earth, the creation of day and night took place.

The Scripture places as next in order the creation of the *firmament*. This is our atmosphere, with all the wonderful provisions connected with it for distributing moisture, and at the same time separating by a film of clear air the waters above from those below. The next was the formation of the *dry land*. The state of chaos then existing was not a confused mingling together of the existing elements, but the whole earth presented a smooth and unbroken spherical surface. Geological phenomena illustrate this part of the narrative. The earth was agitated by volcanic and other causes, the masses of the surface of the earth were broken up, and the elevation of certain portions resulted in the formation of *dry land*. The next in the series was the formation of plants, "the grass, the herb yielding seed, and the tree yielding fruit whose seed was in itself." This plant creation was probably antecedent to the date of the oldest fossiliferous rocks of geology. The creation of the lights in the firmament of the heavens is the next in order of the series. This indicates the final concentration of the sun's luminous atmosphere, and possibly other astronomical arrangements. The creation of living creatures was the work of the next day. "And God created great whales, and every living creature that moveth, which the waters brought forth abundantly." The last act of the series, previous to the formation of man, was the creation of cattle and creeping things, and beasts of the earth. The researches of geology likewise show that at this time, which we may identify with the tertiary period, the herbivorous and carnivorous mammals were created, as the mastodon, the mammoth, and the other great animals, now extinct.

The lecturer in conclusion, asked leave to direct their attention to a few general conclusions. The Scriptures and geology both testify to the fact that there was a creation. The Scriptures begin the account with a statement which science reaches with slow and careful steps. Both testimonies shew, that each of the successive periods of the earth bore an intimate relation with every other period. In both accounts, we are told that the sea produced the first living creatures. In its oldest period geology has discovered only marine animals. Similar coincidences appear in other periods. Both records represent death as existing among the lower animals before the creation of man. Scripture and Geology both mention among the races of animals previous to man, carnivorous animals—beasts and birds of prey, who fed on their kind. But the introduction of man instituted a new order of things, and these carnivorous animals might have disappeared had man remained innocent.

Lastly, Both records represent man as the last of God's works, and the culminating point of the whole creation. Man is the capital of the column; and, if marred and defaced by moral evil, the symmetry of the whole is to be restored, not by rejecting him altogether, like the extinct species of the ancient world, and replacing him by another, but by re-creating him in the image of his Divine Redeemer. Man, though recently introduced, is to exist eternally. He is, in one or another state of being, to be a witness of all the future changes of the earth. He has before him the option of being one with his Maker, and sharing in a future glorious and finally renovated condition of our planet, or of sinking into endless woe and degradation. Such is the great spiritual drama of man's fate, to be acted out on the theatre of

this world. Every human being must play his part in it, and the present must decide what that part shall be.

The coincidences that we have marked at every step of our progress between the revealed account of creation and that which is inscribed on the stony monuments disclosed by geology, should strengthen our faith in the Word of God as an inspired guide in reference to our future and highest interests. The Bible fears no investigation. Coming from God, and conscious of nothing but God's truth, it awaits the progress of knowledge with calm security. It watches the antiquary ransacking among classic ruins, and rejoices in every medal he discovers and every inscription he deciphers; for from that rusty coin or corroded marble it expects nothing but confirmations of its own veracity. In the unlooming of an Egyptian hieroglyphic, or the unearthing of some ancient implement, it hails the resurrection of so many witnesses; and with sparkling elation it follows the Botanist as he scales Mount Lebanon, or the Zoologist as he makes acquaintance with the beasts of the Syrian desert; or the traveller as he stumbles on a long lost Petra, or Nineveh, or Babylon. And from the march of time it fears no evil, but calmly abides the fulfilment of those prophecies and the forthcoming of those events, with whose predicted story inspiration has already inscribed its page. It is not light but darkness which the Bible deprecates, and if men of piety were also men of science, and if men of science were to search the Scriptures, there would be more faith in the earth, and also more philosophy. We have, I trust, seen that the Bible has nothing to dread from the revelations of Geology, but much to hope in the way of elucidation of its meaning and confirmation of its truth. If convinced of this, I trust that you will allow me now to ask for the warnings, promises and predictions of the Book of God, your entire confidence; and in conclusion, to direct your attention to the glorious prospects which it holds forth to the human race, and to every individual of it who, in humility and self-renunciation, casts himself in faith on that Divine Redeemer, who is at once the Creator of the heavens and the earth, and the brother and the friend of the penitent and the humble.

## Christian Messenger.

HALIFAX, JANUARY 16, 1856.

In no branch of mental improvement has more been done of late in North America, than in the adequate provision for sound, moral and intellectual culture for the Female sex. This subject has, especially within a few years, engrossed to a large extent the liberality and energy of the neighbouring Union, and by no portion of the people have greater or more praiseworthy efforts been made in effecting the desired object, than by our own Denomination. Schools, Academies, and at length even Colleges, endowed and organized to meet the exigencies of public feeling, have sprung up in all parts of the country, in which females may receive a sound, useful or highly finished Education according to individual tastes and opinions. It may possibly be objected that some of the Institutions referred to are for carrying female instruction a little beyond its proper province, and indoctrinating the gentler sex in those sciences and species of learning which to some might seem incompatible with the peculiar duties assigned them by the fixed boundaries of our nature. The woman's vocation in the human economy is a high and holy one—but it is not, nor can it ever be made the same as that of man. Her true domain is within the sacred limits of the family, where the first seeds of every moral and every religious virtue are to be implanted, chiefly by her tender, fostering hand. Every attempt, therefore, to alter or transpose their respective duties and obligations as between the sexes, must eventually fail. But we do not apprehend any serious evil from all that has been, or is likely to be done as yet, in over-stepping these great natural boundaries by a somewhat too fervent zeal, or a mistaken view of the rights of women. The error has for so long a time been so much on the other side, that we rejoice to find the community waking up to the duties which one half of

the world so righteously owe to the other. If public Institutions under a sound, careful, moral and religious supervision are a blessing to one part of our youth, we cannot possibly see why they should not be so to the other.

We are gratified, therefore, in finding the subject acquiring an increased importance in the minds of the people of Nova Scotia and New Brunswick, and that they are looking forward with laudable anxiety to meet the growing wants of the age, in this as in many other matters likely to affect the future moral welfare of the people. The communications on this subject which have for some time past appeared in our pages, and especially the spirited commencement of a Female Institution, which has just been made by our valued friends in Pleasant Valley, bring the whole matter before our people in a practical view. As to the number, extent, or peculiar organization of such Institutions, we are not prepared to offer any lengthened remarks. There are, however, many among us no doubt who are fully qualified to communicate their thoughts with profit to their brethren, and to which task we would respectfully urge them. In the meantime the spirit and liberality of our Pleasant Valley friends are deserving of great commendation as having set the example in the commencement of so good a work.

We are indebted to our Canadian Correspondent for some very interesting particulars relative to the state of the Baptist Denomination in that flourishing Province. As he states himself, he has only as yet given us the dark side of the picture, a side, it must be remembered, which belongs to every religious body in every country, however devoted their efforts or encouraging their prospects. We have watched with great interest the "rise and progress" of the Baptists in Canada; for it is but a very few years since they have obtained anything like a footing there, and to any one who considers the obstacles they have had to contend with, we do not believe that in any country they have made a more rapid and substantial advance. Unlike most other parts of North America, Canada West, the great centre of future population and power, has been within our own memory, settled wholesale, so to speak, from the old Country and Lower Canada, by Episcopalians, Presbyterians and Romanists, carrying with them all their several peculiar forms and opinions in their full vigour, and transplanting them into the newly settled soil. Surely under this view of the facts, our brethren in Canada have no cause of discouragement in reference to what has been done, or any reason to distrust the continuance of Divine favour in their behalf. On the contrary we feel assured that in no part of the world are there more solid reasons for Baptists to "Thank God and take courage." As we have before remarked, we look forward with satisfaction to the not far distant day, when our intercourse by Railroad will be vastly more frequent and easy than at present.

Our readers will be pleased to know that Dr. Cramp has promised to let us have the substance of his lecture on the "Plurality of Worlds," for publication, as soon as his engagements will permit him to prepare it from his short-hand manuscript.

From our brief notice of it last week, the subject will be seen to be one of deep interest, which together with that from Professor Dawson on our first page, lead us to the contemplation of vast periods of time, and to depths of unfathomable space, calculated to enlarge the mind and conduct our thoughts far beyond this world and the few short years we have to spend here; and will give us ideas of our connection with eternity and the vast universe, which must have a beneficial influence upon our hearts and lives. "The works of the Lord are great, sought out of all them that have pleasure therein."

### Brief Notices of Books.

[Received from E. G. Fuller, Halifax.]

OLIVER and the JEW FAGIN; from the *Oliver Twist* of Dickens.

The author in his preface says:—"In this history of Oliver's life, I have wished to show the principle of good surviving through long adverse circumstances and triumphing at last."

HARPER'S MONTHLY MAGAZINE for January, 1856.

This popular magazine is in every way equal to its predecessors, besides some very original matter it has