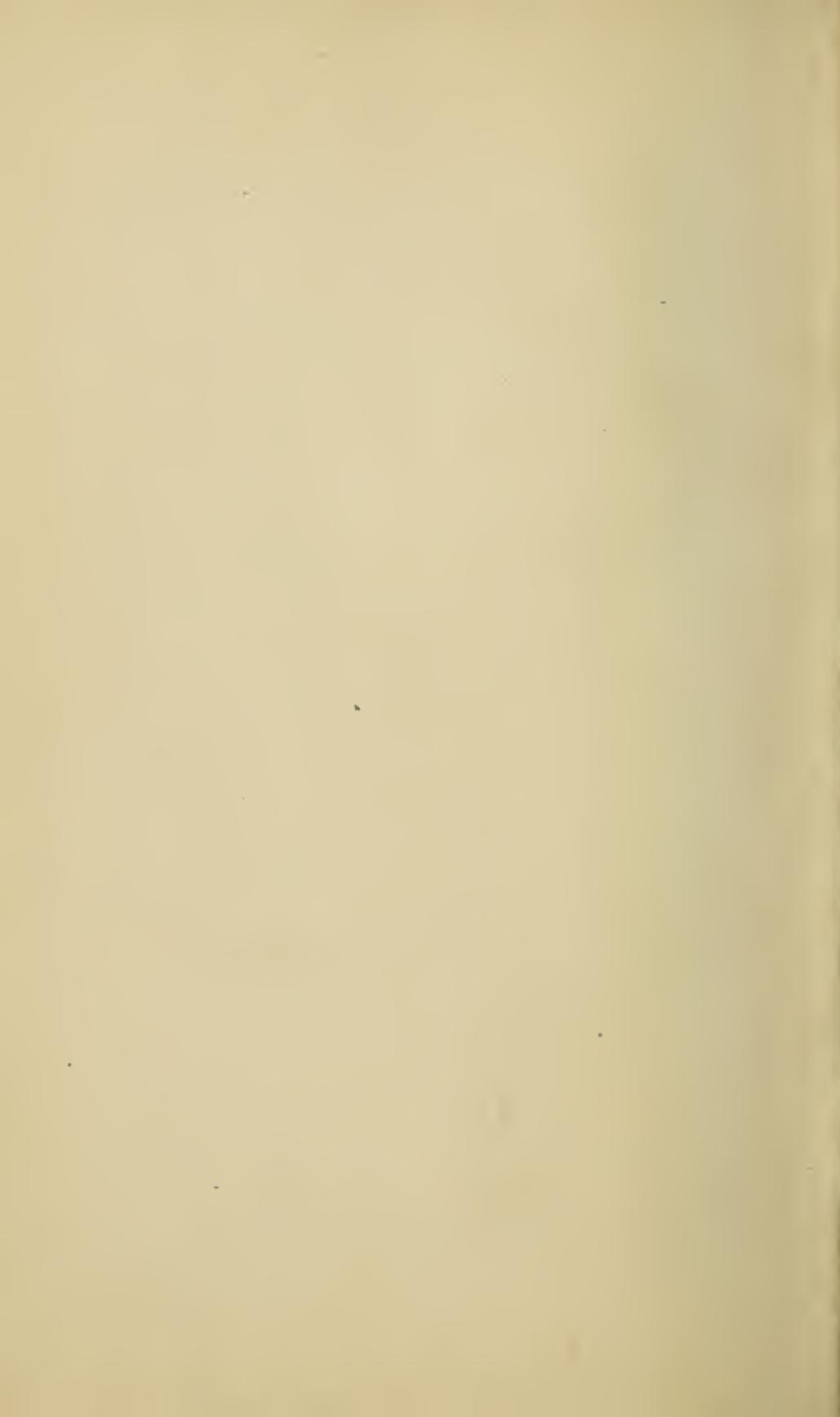


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EVENINGS

WITH

THE BIBLE AND SCIENCE.

BY J. B. SEWALL.
"

Ὁ οὐρανὸς καὶ ἡ γῆ παρελεύσονται, οἱ δὲ λόγοι μου οὐ μὴ παρέλθωσι.

ΜΑΤΤ. xxiv. 35.

BOSTON:

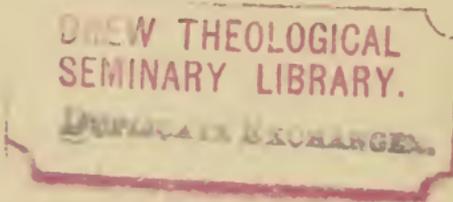
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N O T E .

THE following Essays upon some of the points at issue in the great debate between the church and scientific skeptical criticism, were given in the winter of 1863-4, as Sabbath evening lectures, by a pastor to his people. This fact will account for their form and the familiarity of their style.



1863-1864

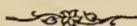
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EVENINGS WITH THE BIBLE,

AND

SCIENCE.



THE ANTIQUITY OF MAN.

IN the first chapter of Genesis, verses twenty-six and twenty-seven, is recorded the creation of man. And God said, "Let us make man in our image, after our likeness; and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth. So God created man in his own image; in the image of God created he him; male and female created he them." This is given as the final act in the work of creation, and represented to have occurred upon the sixth and last creative day.

According to our received chronology, this was but 4004 years before Christ, — 5868 years ago. In our Reference Bibles it may be noticed

that the date "B. C." stands at the head of the marginal column on every page of the Old Testament, and that at the head of the column on the first page of Genesis, it reads "4004 B. C." This date has been obtained, speaking generally, by taking Bible in hand, and reckoning from Adam down — first to Noah, then to Abraham, then to the exodus, and so on, as the generations and events are given.

It is not made out, indeed, without difficulty. There are intervals, of which the length is not precisely given; e. g., the period of the Judges after the death of Joshua. Hence, there are different systems of chronology. The three most commonly known, — those of Hales, Jackson, and Usher, — make the date of creation 5411, 5426, and 4004 B. C., respectively. The latter, Usher's, is that which has been adopted by our English Bible editors. The differences are a little more than fourteen hundred years.

Most of you have heard something of late of the "Antiquity of Man," — a question which is interesting the religious and scientific world very much at the present time. You have seen it stated, for it has been much talked of in the papers and reviews, that discoveries have been made, which demand that the date of man's advent upon the earth be carried back perhaps tens of thousands of years, perhaps

hundreds of thousands, perhaps even a million or more. In particular, you have heard of Sir Charles Lyell's recent volume on the subject. Perhaps some of you have read it. In this volume these discoveries are gathered up in one account, and the distinguished author gives his own opinion, or rather frames his argument in view of them, for the great antiquity of the race.

I have thought that many of you, in common with the thinking world around us, might be interested in this question, — interesting and important as it is in itself, and in its bearing upon the question of the inspiration of the Scriptures, — and would be glad to hear it discussed. I propose, therefore, this evening, in the first of this series of discourses, to speak of these discoveries, and consider the force of the argument derived from them, as it bears upon the inspiration of the Bible.

The discoveries consist chiefly of remains of human workmanship in geological strata, which, though recent geologically, must in reality be tens, or hundreds, or thousands of thousands of years old. Some of the discoveries are those of ancient caves, mostly filled with earth, but evidently once inhabited by animals now, and for a long time, extinct. With the bones of the ancient extinct animals, have been found

implements of human workmanship, and sometimes human bones. Others are the remains of ancient lake-dwellings in Switzerland, of which history preserves no record. I will briefly describe these discoveries, beginning with the latter.

In the winter of 1853-4, it being a remarkably dry winter, and the water of the lakes and rivers in Switzerland lower than had ever been known, the inhabitants of Meilen, by the Lake of Zurich, undertook some dredging operations in the lake, for the sake of making new land. In the course of their labors they discovered a number of wooden piles driven deeply into the bed of the lake, and among them a great many hammers, axes, hatchets, and other instruments, all made of stone, with two exceptions — an armlet of thin brass wire, and a hatchet of bronze. Fragments of rude pottery were found in abundance; also remains of charred wood. Of what were these the remains? Nothing in the history of Switzerland could tell. There was a clew, however, in ancient history. Herodotus tells of a Thracian tribe, living about 500 B. C., in the southeastern part of Europe, who constructed their dwellings on platforms, raised above the water of a lake, and resting on piles. They were connected with the shore by narrow, movable

bridges, and were so extensive as to accommodate the people and their horses. This mode of living was doubtless for protection in those barbarous and warlike times when, clubs, bows, arrows, and stone hatchets being weapons, a good distance upon the water was as safe a defence as impregnable walls. Other barbarous peoples have been known to construct their dwellings in this way within the historical period. The inhabitants of New Guinea, in Australasia, were found living so by the explorers of the sixteenth and seventeenth centuries.* Without doubt, then, the Swiss lakes were once the sites of similar lake-dwellings. Many more remains have been discovered since 1853-4, showing that the dwellings must have been very numerous. It is estimated that as many as three hundred wooden huts were sometimes comprised in one settlement in this way, and at one place, that more than forty thousand piles were driven.

But what is the evidence of the great antiquity of these lake-dwellings? It consists in the fact that only stone implements have been found, and with them the remains of extinct animals — implements long passed from use, and animals extinct, before any record which exists.

* *Encyclopædia Britannica*, IV., p. 264.

The cavern discoveries have occurred in several places in Europe—in Sicily, France, Belgium, and England. These caverns exist in the limestone of those countries. All limestone regions abound in caverns. They have not been known in modern times till recently, and their discovery has been the result of accident, as in the case of the famous Brixham cave in England, which was discovered by the accidental falling in of a portion of the roof. It may have resulted sometimes, also, from the labors of quarrymen; for in some cases the caves, in which remarkable discoveries were made, have altogether disappeared. The work of quarrying the stone, for building and other purposes, has gradually eaten them away.

These discoveries are very similar. A cave, on being opened, would be found more or less filled with gravel and mud; and over this frequently an incrustation of stalagmite—a deposition of limestone, from the water dripping from the roof. This showed that water had had access to the caves; and in some cases, it was evident that they had long been the underground channels of rushing torrents. In the mud were found bones and implements. The bones were those of both living and extinct animals, and sometimes of man. The extinct animals are those which must have lived in

Europe when the climate was far different from what it now is; e. g., the hippopotamus, the great hyena, the great or cave-bear, the rhinoceros, and the primeval elephant, or mammoth. The implements were rude arrow-heads, knives, and hatchets, of flint, and smaller instruments of bone, evidently the implements of a rude age.

This is a general description of the cavern discoveries. I will now describe one more particularly, for the sake of distinctness, — the Brixham Cave, in England, already alluded to. I call it a *cave*. It is properly a suit of caverns, one underground apartment opening out of another for hundreds of feet. They were first discovered in 1858, as already stated, by the roof of one of them accidentally falling in. Five galleries have been explored, extending several hundred feet in length, while the width never exceeded eight feet. The mouth of the main entrance is ninety-five feet above the level of the sea, and sixty feet above the adjoining valley; by which it is at once seen that a great geological change must have occurred in the region, since those caverns were channels of rivers, and the mud, gravel, and bones in them were deposited by water, as they unquestionably were. The galleries were sometimes filled to the roof with gravel, bones, and mud, but

generally there was considerable space between the roof and floor. The floors, where there were fissures in the roof for water to trickle through, were covered with stalagmite. The order of deposits was the following:—

At the top, a layer of stalagmite, varying in thickness, from one to fifteen inches, which sometimes contained bones;

Beneath this, loam, or bone-earth, of an ochreous red color, from one to fifteen feet in thickness;

At the bottom, gravel, with many rounded pebbles. The fossil remains were found chiefly in the second layer, — the loam, bone-earth, or cave mud, as it is interchangeably called. The gravel was barren of fossils, and was not generally removed. The remains found in the loam were the bones of the extinct animals I have referred to, — the primeval elephant, the rhinoceros, cave-bear, hyena, and lion; also a species of horse, and of the ox, and some others. With these were many flint knives, — instruments which were evidently the result of human workmanship, though very rude. Many of you must have seen similar flint implements in the various collections of the remains of the aborigines of this country. The school children have them figured in the history of the United States which they study. And any one

who has seen them, or even the figures, will admit that there can be no question as to whether they could have been formed by natural agencies, such as the rolling and dashing of water, or the action of heat, together with water, or must have been formed by intelligent workmen. Human bones, though found in other caves with those of the extinct animals, were not found here.

Read, now, the record of this cave. It is, first, a geological period when the region is relatively lower than at present by about one hundred feet. An ingulfed river is flowing through those galleries. Its current is so swift as to bear in and strew along the bottom a thick bed of rolled gravel stones. Then the region is gradually elevated, — as some other coasts are now being elevated, while our own is being slowly depressed, — so that the river flows continually more slowly, and is able to deposit the mud of its turbid current. While it is depositing this mud, sometimes to the thickness of one foot, sometimes fifteen, it brings in, also, the bones of extinct animals and the implements of savage men together. Gradually the region is so raised, that the river channel has found another, a lower bed, and the caves gradually become dry. And, finally, a long period — no one can tell how long —

passes, while the water, saturated with lime, is trickling slowly from the roof, and forming the solid bed of stalagmite, which incrusts the whole. Stalagmite, of the same composition with marble, is at the same time more compact and harder. Arguing from geological analogies alone, if we are to do so, the deposits of this cave may be hundreds of thousands of years old.

The discoveries of human remains in geological strata are of two kinds, those made in the deposits of the River Nile, in its delta, and those made in the post-pliocene deposits of the River Somme, in France.*

Between the years 1851 and 1854 some extensive investigations were made in the delta of the Nile. The great river of Egypt, as is familiarly known, bears along in its current constantly a great deal of sediment, like our own Mississippi. The great deposit of this

* "I have adopted the term post-pliocene for those strata which are sometimes called post-tertiary, or modern, and which are characterized by having all the embedded fossil shells identical with species now living. . . . These modern formations, thus defined, comprehend not only those strata which can be shown to have originated since the earth was inhabited by man, but also deposits of far greater extent and thickness, in which no signs of man or his works can be detected." — *Lyell, Manual of Elementary Geology*, chap. x.

The post-pliocene, thus described, comprises, in general, the strata of sand, clay, and gravel lying immediately below the surface soil.

sediment at the mouth, which has been forming ever since the river had an existence, is of a triangular form, its base along the coast being about a degree and one half long, and its perpendicular, from base to apex, near Cairo, about the same. This is the delta. The investigations were instituted by the Royal Society of England, to determine the nature, depth, and contents of the Nile mud. They were carried on by sinking shafts or borings in lines, and at different intervals, across the delta. One of these lines consisted of no less than fifty-one borings, made where the valley is about sixteen miles wide. Another consisted of twenty-seven borings, where the valley is five miles wide. These excavations brought up constantly, and from all depths, from near the surface to sometimes the depth of sixty feet, articles of human workmanship. So long as each excavation could be made with the shovel, which would be till the Nile water began to soak in, at the depth of twenty or twenty-five feet, entire articles were thrown up, such as jars, vases, pots, and, in one instance, a small human figure in burnt clay. The rest of the excavation, performed by artesian boring, brought up only fragments; these fragments, however, as just stated, came up from the lowest depth. The argument deduced from

this is as follows : The Nile mud is deposited very slowly ; it is estimated at the rate of from five to seven inches in a century. If the rate is assumed to be six inches, then a brick or piece of pottery, found at the depth of sixty feet, would be twelve thousand years old. Other estimates have made some of the articles discovered over thirty thousand years old.

The most interesting of all the discoveries, and those which have given value and importance to all the rest, are those of the Somme valley, in France. "Throughout a large part of Europe," says Mr. Lyell, "we find at moderate elevations above the present river channels, — usually at a height less than forty feet, but sometimes much higher, — beds of gravel, sand, and loam, containing bones of the elephant, rhinoceros, horse, ox, and other quadrupeds, some of extinct, others of living species. . . . The greater part of these deposits contain river shells, and have undoubtedly been accumulated in ancient river beds. These old channels have long since been dry, the streams which once flowed in them having shifted their position, deepening the valleys, and often widening them on one side."* These gravel and sand beds, thus it is evident, are very old.

* *Antiquity of Man*, p. 93.

Geologists have classed them in a period which they call post-pliocene, — i. e., a very recent period indeed, geologically, but ancient enough compared with man, as it has been heretofore thought, — a period when, although there were animals inhabiting the earth, there was yet great violence, and therefore many sudden changes, and man not yet introduced. The geologists have never pretended to set any age for these deposits in years. They have called them perhaps ten thousand, perhaps one hundred thousand, perhaps five hundred thousand years old. No one can tell. But lo ! in recent years, since the workmen have been digging into these beds, sometimes for gravel for roads, sometimes for earth to build fortifications, and sometimes for brick loam, and large excavations have gradually been made, these flint implements, of which I have spoken, have been plentifully found, accompanying the bones of the old mammoth, rhinoceros, and other extinct animals. This was previous to the cavern discoveries, and the geologists lifted their eyes with amazement. They doubted and questioned. They declared that the flints could not be the result of human workmanship. But it was not to be denied ; and they at last acknowledged that man must have lived in Europe before those ancient deposits were

made, and in company with the primeval elephant, rhinoceros, and other animals, so long extinct that it was supposed they passed away long before the world was inhabited by man.

To understand, and be properly impressed with, the antiquity of these beds, one has only to go into some of our deep railroad cuts, where first we see the layer of soil at the top, then the beds of loam, sand, and gravel, the surface, as we enter, gradually rising above our heads twenty, thirty, perhaps forty or fifty feet. We look at the different strata, first now laid open to the light by the Irishman's spade since that ancient day—in creation, as we have commonly thought—when the violence of heat, or water, or ice laid them there. You can read off the successive processes. Here a stratum of sand was laid. Soon it was bored into in one part by a violent tide, and a bed of gravel deposited. Here, again, some disturbing power, like some vast, pushing body, we might think, has mingled sand and gravel together. And here, again, fine sand and loam have silted down from deep and slowly-moving waters. Great changes! And they speak to us of long, unknown periods, and tell of an unknown antiquity. So far as we know, from observed geological processes, they must have taken place hundreds of thousands of years ago.

So these beds in the valley of the Somme, whence now have come to light, with the bones of extinct mammoths and rhinoceroses, articles of distinct human workmanship. If the geological position is true, then these human implements are the remains of a race inhabiting the world perhaps hundreds of thousands of years ago.

These, briefly, are the discoveries. The question now is, *Are these inferences true?* Must we admit, from these scientific evidences, that man has inhabited the earth much longer than we have supposed,—much longer than the chronology of the common reading of the Bible will allow? You see the bearing upon the Bible, if the deductions from these premises are true. Either we must be able to correct our reading of its record, or else its character, as an inspired book, receives a severe shock.

My position is this. I fear not for the Bible. That book has maintained itself, thus far, through all the storms of attack which have been levelled against it, and survived all the indifferent and hostile neglect with which it has been treated. It has been assailed in open attack of doubt and disbelief, by criticism, philosophy, and science, and it still remains intact. It shows no mark of encounter, save that its truths shine out more brightly, and

gleam with intenser light, like the armor of the knight who has seen many battles. Not a shred from a leaf is gone, not an iota from a word. It is God's word, — has proved itself such, by the track of light it has made wherever it has gone in the world. I have not the least fear or anxiety for it in this issue, or in any to come. Do I then believe that there is nothing in these scientific discoveries? No; that is not my position. I do not know but that it may be proved by science that man has inhabited the earth for an unknown period of time, — from a great antiquity. But if so, then this must be true: *we must look to our records again.* We must re-read them with new scrutiny; we must see if we have read them correctly. And if science does show for the human race a great antiquity, then at least we shall find that the sacred record does not deny it; we shall find in the form or manner of the sacred chronology room to believe that it is so, and perhaps more than that. Perhaps we shall find, as we did with regard to astronomy and geology, that we had read our record hastily; and I may say, at least with reference to geology, that if we had read it before with the thoughtfulness and scrutiny we ought, — if the church in past ages had taken proper care to preserve the true reading of the record, — we

should not have received the discoveries of science as discoveries. All that science has disclosed with regard to the creation of the world, is revealed in the first chapter of Genesis, now that we have the lost key restored; and we find that we always had the facts which geology has revealed. The truth simply is, that the church may not yet have the full and true reading of her sacred record. Twice has she been called to read it anew, and it may be the call will come again. The subject of chronology is confessedly not a clear question. The utterances of Scripture, from which it has been gathered, are confessedly not without difficulty; i. e., they are not thoroughly understood. And why not the whole church be at fault in the understanding of the Scriptures? Single individuals always confess that they are; and what is the church but the sum of the individuals? Their added deficiencies will not complement one another into a perfect whole. If no one individual is able to pronounce that he has possessed himself of all the truth of revelation as it is and as it should be, then certainly the whole church cannot. And it is one firm article in the creed of the church, — our own branch of it particularly, — that all the light in revelation has not yet been opened up.*

* Cf. John Robinson's parting advice to the pilgrims of the Mayflower.

My position is that of patience. I will wait. Perhaps we have not yet all the facts science is going to give us. Perhaps present appearances, even, will be modified. Perhaps new light will come from some quarter, which will show that inferences now drawn are not the proper and correct conclusions. Once, the savans engaged in research among the monuments of Egypt thought they had made a discovery which settled this very point. They published to the world that they had found a temple still standing on the banks of the Nile, which bore certain marks of having been built in an almost inconceivable antiquity. The world was amazed, and the church, for the moment, stood aghast. But a little while, and what happened? Closer investigation revealed the fact, beyond dispute, that the temple was built by the famous Cleopatra, as late as the time of the Roman Cæsars! Problems are not always solved in a day. Secrets do not always bring their revelation in their immediate train, nor does the morning sun appear, after the darkness of the night, a sudden, bright flash in the east. It is well always neither to be in haste in pronouncing upon alleged facts and discoveries, nor in haste to let go, and regard as overthrown, the old and the good.

But I am not yet satisfied that these deductions are true. I do not deny the facts, so far as they are established, nor any argument which may be conclusively derived from them. I do not deny the science of such men as Lyell and his *confrères*. But their facts and science are one thing, and their reasoning another. I may receive their facts, but doubt their conclusions.

Let us examine. You will notice that the argument for the antiquity of man rests upon a twofold basis.

I. The place in geological period which the human remains discovered occupy.

II. Their association with the bones of extinct animals.

The first of these is by far the most formidable. I must confess I feel a great respect for the pronouncements of such men as Lyell, when they speak of the strata of the earth, or of any geological period, or of the antiquity of any particular portion. When Mr. Lyell visits the valley of the Somme, and tells me, from his own observation, that the sand and gravel pits at Amiens and Abbeville belong to that period of great change called the *diluvial*, succeeding the period, ages upon ages, when the earth was preparing for man by the deposition of its coal beds, limestone, and marbles, — when genera

of animals and other living creatures existed which have not, and could not have, continued to our own time, — yet preceding that in which man made his appearance, as heretofore thought, and are of very great antiquity, I cannot hesitate to receive his testimony. He is able to pronounce upon their place in geologic time and order.

And when I read the evidence from such a discovery as that of Brixham Cave, — when I see the proof of great geologic change, the great elevation of the cave above its former comparative level, — and think of the time which seems needful for the filling up of the cave with gravel, and the deposition of the bone-earth, and the incrustation by stalagmite on the top, I am impressed with a feeling of great antiquity. But, after all, the question is, How much is certainly known from these appearances? Are there not analogies upon both sides? If we have, in general, slow rates and long times for geological changes, have we not at other times very rapid, even sudden and violent changes? There have frequently been sudden changes in the level of particular regions. Our own Mississippi valley has exhibited this phenomenon. So have islands in the Mediterranean Sea. A very rapid subsidence of our own coast, especially that of

South Carolina, is taking place. The General of our forces now operating before Charleston,* we are told, has been seriously incommoded by the encroachments of the sea since his troops have landed. The same is true on the coast of Norway, as noticed by Mr. Lyell himself. The elevation, then, of the Brixham Cave may have been sudden. It does not necessarily imply long time. So the washing in of the gravel, and deposition of the mud. We, who live by the sea shore, have become familiar with the power of water in changing beds of gravel and moving about stones of considerable size. One winter storm sometimes changes the whole form and appearance of our beach. An illustration of the fact that a torrent will transport or "wash" gravel, and the rapidity with which it will do it, occurred in my own experience, only a few weeks since, in the valley of the Mohawk. The morning of the day had been rainy; sometimes it poured in heavy showers. At noon we took the cars. We had not ridden thirty minutes before we were stopped by a bed of gravel, laid across the track within the previous two or three hours by a mountain brook, which had been changed into a torrent. The train was detained four hours while a gang of men were digging it through. The gravel in the

* October, 1863.

Brixham Cave was carried there by violence, by all the evidence. How long time, then, may it have taken? And with a current charged as full as possible with mud, how long would it take to deposit one, or even fifteen feet, in a confined spot, a kind of reservoir in which it was detained, and had chance, as was evidently the case, to make extraordinary deposit?

I do not know at what rate stalagmite forms under a dripping roof, but it cannot be a very slow one. Suppose water, holding in solution as much salt as possible, were dripping constantly through the roof of this house, how long would it take to form an inch of salt over the floor? Would it take many centuries, or even one, to form a thickness of fifteen inches? To be sure, water charged with lime does not hold nor deposit so much as this; nevertheless, it may deposit very rapidly. After all, therefore, when we reflect, we cannot see that it certainly follows that the deposits in the Brixham Cave are of great antiquity. It is possible that they are comparatively modern.

So in the valley of the Somme. The locality where the flint implements are found is not far from the sea. It appears to be in an old estuary. Who can tell what incursions of the sea may not have done there? Or who can tell how long ago it is since that coast was also

elevated, — and it must have been at the same time with the English coast opposite, where the Brixham Cave is, — and the Somme, having recently, as a mountain torrent, brought down these beds of gravel, has now cut through them to a lower bed? Or who can tell that the geologic period, to which these beds apparently belong, is so very ancient? Cuvier, and those following him, determined these diluvial strata — the post-tertiary, as they used to be called — to be anterior to man, and hence very old, because no remains of man were found in them. Suppose, now, that human remains are found in them, Cuvier could pronounce again. Would he say, that we are to argue that the human remains are very old; or that the beds are not so old as they have been thought to be? These strata were put back into a great antiquity, for the reason alone that no human remains were found in them, while other remains were. What kind of reasoning, then, is it to say, “These beds are very old; these remains, therefore, must be very old?” Mr. Prestwich, an authority whom Lyell himself often quotes, said, in a report to the Royal Society in 1859, that he did not consider that the facts, as they then stood, — and no additional discoveries have since been made, — of necessity carried man back in past time more than

they brought forward the great extinct animals (and the same is true, of course, with regard to the strata in which they are found) towards our own time, the evidence having reference only to relative, and not to absolute time; and he was of opinion that many of the later geological changes may have been sudden, or of shorter duration than generally considered.*

The evidence, then, at this, the strongest point, we must say, is not conclusive.

But what shall we say of the Nile delta? It is found by experiment that the river throws down a certain amount of inundation mud each year. It is assumed that that has been its rate from the first; and, therefore, when a boring reaches the depth of sixty or seventy feet, and yet only inundation mud is found, a simple arithmetical computation is made, and its age declared; and if remains of human workmanship are found at that depth, it casts no suspicion upon the conclusion, but proves the antiquity of the race. Now, evidently, the rate of deposit of a few years at the present time may not be, and in all probability is not, the rate of earlier years, especially of the earliest. When a river was ploughing out its channel, on the first upheaval of a country from its ocean bed, it must have borne great quantities of soil in

* Westminster Review, October, 1860.

its current, to deposit where the waters became still or moved slowly. It would seem natural, as a river grew older, that the material which it could take up in its course would diminish in quantity. How can there be, in the course of the Nile, that material to-day to be taken up by its current which there was forty centuries ago? In some places it has found a rocky bed, and from those places, as fast as the bed has been reached, the supply has practically ceased. And, although Mr. Lyell states that every where in these sections the sediment passed through was similar in composition to the ordinary Nile mud of the present day, except near the margin of the valley, where thin layers of quartzose sand, such as is sometimes blown from the adjacent desert by violent winds, were observed to alternate with the loam (p. 34), it is not easy to understand how the deposits in the Nile valley must not be greatly affected by the desert sand. Desert sand has filled in many feet deep in the vicinity of the pyramids at Ghizeh, and at Denderah, and Luxor, the first and second of these being upon the west, and the third upon the east side of the river. The disclosure of many of the ancient ruins, upon both sides of the river, has been at the cost of a vast amount of sand excavation. Mariette's excavations, in 1852, in

front of the sphinx, near the pyramids, were so extensive as to disclose a paved dromos, leading to a large wall, which seemed to have formed a court around the sphinx. The pavement was twenty-four feet below the top of the wall. In 1858, only six years later, this dromos was covered again with sand.* If sand has been laid to such depths upon the banks of the river by the wind, how can the river itself have escaped receiving vast quantities? How can it be that the valley deposits are not, in considerable proportion, wind-brought desert sand?

Mr. Lyell notices the suggestion that the Nile has wandered to and fro over its valley, undermining its banks on the one side, and filling up old channels on the other; and answers that, "in historical times, the Nile has, on the whole, been very stationary, and has not shifted its position in the valley." But there is certainly some evidence to the contrary. The eastern or Pelusiatic arm of the Nile is now a mere canal, but it is commonly supposed to have been formerly navigable for fleets. This opinion, Professor Robinson says,† is based upon a passage in Arrian, where he is

* Austrian Lloyd's Hand Book for Egypt, p. 68.

† Bib. Researches, Vol. I., App., note xii.

describing the expedition of Alexander against Memphis. From Pelusium, Arrian says, Alexander ordered part of his troops to sail with the fleet up the river to Memphis, while he, with the remainder, marched through the desert to Heliopolis, having the Nile on the right hand.* It does not certainly follow from this that the Pelusiatic arm of the Nile was then navigable, and that Alexander's fleet did sail up it; but so it has always been understood, and the view gains probability from the fact that Lake Serbonis, east of Pelusium, well known in ancient times, has become wholly dry land.† If, then, this is true, certainly great changes have been going on with regard to the bed of the Nile.

It will be remembered that Cairo was founded about A. D. 969. "At the time, and long after Cairo was founded, the Nile ran more to the eastward, as Mr. Lane has shown, under its western walls."‡ The space between Cairo and the Nile varies between a mile and a mile and a half in breadth. And this variation in its course the Nile has made in less than nine hundred years. In other words, the Nile is constantly moving to and fro across its valley,

* Arr. Exp. Alex. 3 : 1. 4.

† Encyc. Brit., art. Egypt.

‡ Rawlin. Herod., Vol. II., p. 6, note signed, G. W. (Sir Gardiner Wilkinson).

and has been always running its great furrows through the soil of its delta, and turning to the bottom whatever has lain at the top. Would it be surprising, then, if some of the fragments of pottery which have been found at depths of sixty and seventy feet were even of Roman manufacture, as has been asserted by some? Mr. Lyell himself remarks, that the amount of matter thrown down by the waters, in different parts of the plain, varies so much, that to strike an average, with any approach to accuracy, must be most difficult (p. 37), and yet proceeds at once to assume an average of six inches to the century. When we take, however, this variation into consideration, and remember also the variety of agencies which have been at work, — the earthquake power, by which Cairo was once nearly destroyed,* the geological change of level, by the subsidence of the coast along the Mediterranean, and the elevation of the region about Suez, and that overwhelming flood of the Nile which must have occurred when it burst its rocky barriers at Silsilis, some time between the twentieth and fourteenth centuries, B. C.,† the basis for any important argument as to the antiquity of the remains found in the delta, seems very slight.

* Encyc. Brit., art. Cairo.

† Encyc. Brit., art. Egypt.

Our savans are sometimes very hasty in their conclusions. This seems to me to be their fundamental error at the present time. Lyell, Huxley, Darwin, and all — they are rushing on at highest speed to find a conclusion : as though it were always possible, and necessary, to reach immediately a final result — the goal of their labors.

What has already been said upon the antiquity of the diluvial strata, is an answer to the argument from the association of the bones of long extinct animals with the human remains. A great antiquity has hitherto been attributed to these animals. Why? Because, first, no trace of mention in history has ever been found of them ; and, secondly, never till now have human remains been discovered with them. But, certainly, the first reason is not a very substantial one. The men with whom they may have been known and contemporary may not have been at all an historical people. It is not long, comparatively, since Europe emerged from an unhistorical darkness. What the Romans did not know of the earlier people of Europe we do not know. One of these prominent, extinct animals, however, was still in existence when Cæsar conquered Gaul.* How,

* The *Bos Urus*. The fact is frankly confessed by Mr. Lyell himself. p. 14.

then, is it known that the others had been long extinct? Some of them might then have been in existence, but, not being seen by Cæsar, were therefore not mentioned by him. At the beginning of this century, another of these extinct animals, a mammoth, or primeval elephant, was found freshly preserved, flesh and all, encased in ice, at the mouth of the River Lena, in Siberia. So perfect was its preservation, that when its crystalline sepulchre was opened, the dogs made a meal upon its flesh. Who can believe that an animal so preserved can have been very long extinct? — that many ages have passed since he met with his cold death and burial? The simple fact that all snow and ice in the northern regions partakes of a slow, glacial motion, by which constantly the outer fringe is pushed into the sea, and broken off into icebergs and fields of ice, demonstrates that his extinction cannot be referred to a very remote period.

Here I will close the line of argument. It is brief, but sufficient, I trust, to convince my hearers that we have no reason yet to fear for the Scripture because of any thing which bears upon the question of its inspiration from this quarter. The conclusions of the savans are precipitate. As yet, they have no solid ground for assigning to the human race a

greater antiquity than that which has been thought to be authorized by the Bible. And even, I repeat, there is no reason for anxiety for the Bible, though the evidences now accumulated should be increased by farther discovery, until it is a certainty, so far as circumstantial evidence can make it, that man existed on the earth one hundred thousand or five hundred thousand years ago, and we must admit it as a fact of science, proved beyond question. There are independent evidences that the Bible is the inspired word of God. To my mind, it would matter not if some small mistakes and errors were to be found upon its pages. I could more easily admit and believe, that in the great lapse of time since it has been committed to the hands of man, and compelled to pass through so many transcriptions and translations, such had crept in, and were now there to be found, stumbling-blocks in the way, than I could understand how a book, not of divine origin and inspiration, could come into existence, and have the place this book holds among men, and, above all, could have accomplished the work in the world it has accomplished. To my mind, the evidences of revelation do not exist now so much in the evidences of a verbal inspiration, and of miraculous deeds — *though these must not be wanting: it would be a fatal*

absence—as upon the marvellous work which the Bible has wrought in civilizing and enlightening men, breaking off their bonds of immorality and iniquity, enabling them to live better and more exalted lives, and inspiring them with a hope of a pure, rational, and blessed immortality. Had it done nothing more than a volume of Homer or Herodotus, Plato or Shakspeare, in the world, then should we have been certain that it was not an inspired volume; then would assertions of inspiration, and all testimony from its purity, truth, and miracles, have been of no avail.

But I do not expect to find serious errors and mistakes. I expect, if the evidences ever compel us to believe in the great antiquity of man, to find, on a closer scrutiny of the sacred record, that we ought always to have known it; as in the case of the account of the creation; or to find, at least, as in the case of astronomy, that there is nothing to forbid the belief.

Patience, then, my friends. The truth will certainly manifest and vindicate itself in the end; and God has not made two records, the one to contradict or weaken the other. The Bible is the word of God, and it will only shine as such more and more brightly as time shall roll on. The revelations of science, in the end, will only corroborate its assertions.

We may, therefore, say to Science, God speed you in your work ; but let not your votaries stop by the way to make hasty and false conclusions, and cast wayside reproaches upon a revelation which is surely from God, and which will stand, every jot and tittle, until the heavens and earth shall pass away.

THE MOSAIC RECORD OF CREATION IN THE
LIGHT OF GEOLOGY.

WE will examine, this evening, the Mosaic account of the creation of the world, in the light of Geology. This account is given in the first chapter of Genesis. It is the beginning of the Bible. It relates that "In the beginning God created the heaven and the earth;" that this he did in six successive stages or days, the last and crowning work of all being the creation of man.

Within the last seventy-five years has come into existence the science of Geology. Men, turning their attention to the structure and formation of the globe, have, by observation and study, gradually become able to read its story from its own bosom, written in the rocks and strata of its surface by the life and event of the successive ages. This new-born science, one of the Baconian philosophy, and one of the many monuments which time has erected, and still will erect, to the honor of that great man's name, has turned back the strata of the earth,

like the leaves of a great volume, and read the record as there written from the beginning.

Some of you, perhaps, will ask if this record is reliable? Beyond question it is, saving the weak and hasty conclusions of men. I am a believer in Geology. Every man must be if he believes in his own powers and the processes of his own mind. No man can help believing that every thing or fact must have had a cause, and that like effects must have had like causes. You have cut through a log with an axe. You know the marks which the axe made in cutting. You walk in the woods, and find another log bearing precisely similar marks. You say that that log was cut by an axe, and nothing in the world would persuade you that it was not. You are familiar with the effects and marks of running water. You have seen brooks in the spring, when they have been turned into torrents for a time by the melting snow or rains; and when they have subsided, you have seen what has been left as its traces. Some day, when you are upon a country ramble, you find on a mountain side the dry bed of a torrent. You never saw it before; yet you have no hesitancy in pronouncing what it is, and no one would be able to convince you that that wild and crooked furrow, with rocks laid bare and clean, sods undermined, and the long grass trailing

always in one direction, and piles of soil and sand deposited regularly here and there, was not the effect of running water. So, being acquainted with the effects, generally, of water, and ice, and fire, any one would be able to say, descending a deep pit, or entering a railway cut, and passing the strata, or layers, of sand, clay, and gravel, "These must have been deposited under the action of water;" and on arriving at the rock, "Here is the action of both water and heat." I remember being once struck myself with the ease with which one may sometimes read this stony record, and how convincing are its declarations. It was by the seaside, on our easternmost New England shore, at a point where the Old Red Sandstone crops out. I had stepped down upon a little pebbly beach which was made on the shore, having at one end a projecting point of the Old Red Sandstone rocks, and at the other a perpendicular cliff. I walked along the beach till I came to the foot of the cliff, and looked up. There, upon its face, was told its story — the most tell-tale face I ever saw. The whole cliff was composed of stones, which had been rounded like the larger pebble-stones upon the beach, cemented together chiefly by lime. Here, thought I, in a short chapter is a long history. All these rounded stones are fragments. They were once

part of the great body of rock crust of the earth. By some mighty convulsive power, through a long series of action probably, they were broken off. For centuries they were washed and rolled in the sea, till they obtained this rounded form. Then, or by that process, they were conveyed hither from a distance, we know not how great, for they are foreigners here — they do not belong to the rock of this region. Then they formed the bed of a limestone stream; or water, saturated with limestone, found means to trickle through the mass for an inconceivably long period of time, to form the nut-white matrix. And now, at last, they have been lifted by some upheaving power, showing this clean-broken face thirty or forty feet high. I turned away with a profound sense of the antiquity of the soil I was treading upon. The record was too plain and straightforward to gainsay.

Notwithstanding all this, some have maintained, and still maintain for aught I know, that the earth was created just as it is, with the strata as they are, layer upon layer; all the rocks with their enclosed fossils, and the great beds of coal with their included impressions of monstrous leaves, and forms of branches, and trunks of trees. All I have to say with regard to such a position is, that God *might*

have created all things as they are, or as they were when Adam first opened his eyes upon the world — it is clearly *possible* that he might, in his omnipotence; but it is wholly incredible that he did, and quite clear that he did not. We shall do violence to the faculties of reason and intelligence which he gave us, to think that he did. You find an empty shell upon the sea-shore. You believe that not long since a living creature inhabited it. It would be irrational and absurd to believe otherwise. No shell ever exists without a living creature for its inhabitant and builder. But now suppose you go into a marble or limestone quarry, and as the workmen split open the rock, you find just such another shell embedded in and become a part of the rock. What will you say? That it did not originate in the same way? Will you say that it was made so, a full-grown shell, in and part of the rock? Or, suppose you take your spade and begin to dig in some old burial-ground — let it be on old Burial Hill in Plymouth, if you please. At the first thrust of your spade through the sod, you turn up the bones of some poor dog that has chanced to die there — at least they are, bone for bone, precisely like a dog's bones. Do you doubt that they were once clothed with flesh, and formed some poor Trusty or Fido, in his day as smart

and faithful a dog as any other? Not at all. You dig on. In a little while the spade throws up a human skull, or an arm. Ah! you say, I have struck some old and forgotten grave. These are the bones of a human being, who once lived, and breathed, and walked this earth, and had his cares, and joys, and sorrows in his day, as really as we do now. Perhaps he was one of the Puritans, and came over in the *May-Flower*, and worshipped in the old flat-roofed log meeting-house that once stood hard by. At any rate, these are the bones of some old settler. There can be no doubt about that. You dig again. I do not know the geological structure of that hill. Probably it is a bed of diluvium resting on primitive rock. But we will suppose it is not, and that you next strike a bed of marl. The spade throws out sea mud and shells. Ah! say you again, these were once at the bottom of the sea. This mud is precisely like that on the flats of the harbor yonder, and these shells are the same with those you will find yonder with living creatures in them. These, no doubt, once had living creatures in them, and were washed by the water of the sea. No doubt about that. And so you go on, the spade in turn throwing up the bones of animals and the shells of mollusks still living, then the bones of extinct animals in gravel, then,

exchanging the spade for the pick and drill, the shells embedded in chalk and soft limestone, then the fossils of the harder rocks. At what point will you stop, saying "These must have belonged to living creatures once," and begin to say "These never belonged to living creatures, but were made here just as they are?" At no point. The same reason continues for believing that each newly-found bone, shell, and fossil belonged to a once living creature, as for believing that the last did. God's works tell us as true a story as his word.*

This being premised, we are ready to look at the Mosaic record of the creation, and see how it reads under the light of Geology.

The old understanding of the Mosaic record was, that it taught the creation of the world — sun, moon, stars, and all — out of nothing, in six ordinary days — six days of twenty-four hours ; and, since common chronology makes the human race but about six thousand years old, that the world consequently is only about that age. When, therefore, the geologists began to affirm that the world must be older than six thousand years ; that in fact it must be looked upon as hundreds of thousands, perhaps millions of years old ; moreover, that its process of formation from

* See Hugh Miller, *First Impressions of England*, pp. 348-350.

a primal and elementary state, the formless and void state of the Mosaic account, bore every mark of being natural, i. e., by the operation of mediate forces and those now in existence; and, therefore, the creation of the world, as it now is, could not have been a work of short, direct, miraculous action on the part of the Creator, the ideas of people received a shock. They were so fixed in the view that the Bible plainly taught that the world was made out of nothing in six common days; that therefore the mountains and rocks of the earth, and every thing in them, are now just as they were in the day of the creation; that any hint that the world was not made in six common days, or that it was much older than six thousand years, seemed to them rank infidelity, and an open, hostile attack upon the Bible.

Still, so long ago as 1804, — the first of this century, — according to Hugh Miller, Dr. Chalmers, the famous preacher of the Free Church of Scotland, then a young man, took occasion to say, in a public lecture, that this feeling was wrong. "There is a prejudice," said he, "against the speculations of the Geologist, which I am anxious to remove. It has been said that they nurture infidel propensities. It has been alleged that Geology, by referring the origin of the globe to a higher antiquity than is assigned to

it by the writings of Moses, undermines our faith in the inspiration of the Bible, and in all the animating prospects of the immortality which it unfolds. This is a false alarm. *The writings of Moses do not fix the antiquity of the globe.*" This is true, and thus early was it seen by that clear-sighted man. The new discoveries did not affect the Mosaic record at all, did not bear inimically upon its inspiration in the least. They only affected the common understanding of that record. They jostled the old ideas. But the church commonly thought that inspiration was assailed, and it began to look about itself. It soon perceived that it was not possible to call in question the *facts* of Geology. What was then to be done? But one course lay open to pursue. The church must examine again its record, and see if it had been read aright.

The church immediately gave itself to this work, and forthwith a multitude of schemes were invented for the reconciliation of the two records, the Mosaic and the Geologic. It was thought for one thing — and this view became quite prevalent — that the first and second verses, "In the beginning God created the heaven. And the earth was without form and void; and darkness was upon the face of the deep. And the Spirit of God moved upon

the face of the waters," were introductory, and described a previous state of the globe; and that the work represented as that of six days following, was a work of refitting the earth. At last it was suggested that the word *day* was used metaphorically, meaning an indefinite period, or age; and many passages were adduced in which the term appeared to be so used. This was very near the truth — so near that it satisfied the demands of the facts of Geology, and seemed to have the support of other Scripture. It, however, was not exactly the truth, but led immediately to it. The word *day* is not used metaphorically, but literally, to mean an age, or indefinite period. A more thorough study of the original term has shown that, in the Hebrew mind and use, it was by no means confined in meaning to the solar or twenty-four-hour day. Its element of meaning was not a twenty-four-hour length of time, but a cycle, a going and coming again, of similar states and conditions, or of light and darkness. Cyclicity was the primary element, not duration. When a thing came, and while it remained, it was a day. For example, the time during which a nation was in adversity, was called the day of its humiliation (the cycle is, prosperity, adversity, prosperity), and so its prosperity the day of its exaltation. The ordinary day seems to have been called so

from its being a cycle, either from evening to evening, or from morning to morning. It is said in Micah (iv. 1), "But in the last days it shall come to pass that the mountain of the house of the Lord shall be established in the top of the mountains;" referring to those later times when Christ's kingdom shall have fully come. In verse 6 the prophet continues: "In that day, saith the Lord," — joining all these latter days into one, — a period or age, — the derived cyclical element of which is readily seen. We might multiply instances in illustration of this as the meaning and scope of the word, but it is not necessary. This discovery we owe to the labors of one of our own most distinguished scholars.*

With this understanding, then, of the true import of the word *day*, we find, instead of a conflict and discord between the Mosaic and the Geologic records, a most wonderful harmony. We find that Geology, instead of infringing upon the authority and truthfulness of the Mosaic account, only confirms them. Let us examine.

The Mosaic account tells us, first, that "In the beginning God created the heaven and the earth." This is introductory. It assigns the

* Professor Taylor Lewis, Union College. See his remarkable volume, "Six Days of Creation."

work of creation to God, and distinguishes the account from heathen mythologies, which relate that the earth was born of Night, and that Gods were born of the Sea, and men from Gods ; and from infidel assertions, which ascribe the work to chance, or declare matter to be eternal. Geology does not deny, though it can affirm nothing more distinctly than that an infinite and intelligent Omnipotence performed the work.

The account next says, "And the earth was without form and void ; and darkness was upon the face of the deep." This is where Geology can hardly yet make an assertion. It is the region rather of Astronomy. And what has Astronomy told us? Curiously enough, from what their telescopes have revealed, Laplace and Herschel have maintained that the original form of the world, so far as science can reveal, must have been nebulous, or gaseous. The telescope seems to have revealed still forming worlds in distant space. A nebular cloud would be discovered. In a central spot concentration would appear to be taking place. From that it was easy to go on, in imagination, to the complete concentration and organization of all the matter of the globe. What terms could better describe this nebulous state than "formless and void"?

“And darkness was upon the face of the deep.” This would be the case before any organizing operation. “And the Spirit of God moved upon the face of the waters.” It is supposed that the Hebrews had no term which would more aptly describe the nebular sea of matter than the term “waters;” and, indeed, it is a question if any is needed. Such a term, in a primitive language, would very likely be a generic term, denoting any and all bodies of fluid substance. The first waters, then, are the nebulous material, previous to any work of organization. Upon it the Spirit of God — his creative power — begins to act; and notice the result. The next verse says, “And God said, Let there be light: and there was light.” How remarkable! Modern science has shown us that light is the first result of motion. If the waters of the second verse were this supposed sea of nebulous material, the first effect of divine working in it, in the creative process, would be light!

“And God saw the light, that it was good: and God divided the light from the darkness. And God called the light Day, and the darkness he called Night. And the evening and the morning were the first day.” God’s naming is constituting. He constituted this period of first darkness and then light — the first day.

And here notice that it is the cycle — the contrasted states of darkness and light — which is called “day;” and that it could not have been a common twenty-four-hour day. Time is not measured here. There is no sun nor moon to measure it. It is only a state or period of darkness succeeded by light — the unmeasured continuance of the first act in this great drama of creation. And the work of this first day is what science tells us must have taken place in the first forming period; viz., the chemical combination of matter, according to its affinities, and its organization into form. Thus all the material of the globe, on its first creation, is in its nebular, gaseous form. The next step, evidently, is the union of the different particles according to their affinities. The particles composing the rocks go together, the particles composing the different metals, and so of all the combinations. And according to the laws of Chemistry, we should have, as the result of all these combinations, an intensely heated, incandescent mass. Chemical combination and concentration always evolve heat.

Second day, or period. “And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters. And God made the firmament and divided the waters which were under the firma-

ment from the waters which were above the firmament ; and it was so. And God called the firmament Heaven. And the evening and the morning were the second day." If we understand by "waters" here, water properly, then in this period the globe is presented to us as in general covered with water ; and the creation of the firmament is doubtless the separation and location of the atmosphere around the globe, by which the fogs and clouds of vapor are borne up from the earth, and the blue arched appearance, called the heavens, is occasioned. But if we understand the term to refer, as before, to the nebulous matter, which has now become in part concentrated into the form of the globe, the work of this period is the separation of the concentrated mass from the body of nebulous matter — its individualization. In either case, the language well describes what Geology tells us must have taken place in this stage of the creative process. It tells us that the material of the earth's crust, in very great degree, previous to its present form, must have been held in solution by water ; that it was then deposited in strata ; and while the central heat was hardening some into rock at the bottom, the aspect of the surface must have been one wide waste of waters. This second day was the age of the sea.

For the work of the third day it is recorded : “And God said, Let the waters under the heaven be gathered together unto one place, and the dry land appear ; and it was so. And God called the dry land Earth ; and the gathering together of the waters called he Seas” (i. e., thus he constituted the continents, islands, and the seas) ; “and God saw that it was good. And God said, Let the earth bring forth grass, the herb yielding seed, and the fruit-tree yielding fruit, after his kind, whose seed is in itself, upon the earth ; and it was so. And the earth brought forth grass, and herb, yielding seed after his kind, and the tree yielding fruit, whose seed was in itself, after his kind ; and God saw that it was good. And the evening and the morning were the third day.”

This is the Mosaic record. Now what says Geology ? Geology tells us that the next stage in the process, after the deposition of strata, was the lifting up of the continents and islands, by a slow and gradual upheaval by an internal force. When the globe first took its form, we saw it a glowing, incandescent mass. Cooling gradually, its waters condense upon its surface. In the cooling process, the rock-mass, between the intense heat at the centre and the raging waters at the surface, is broken up and ground into sand and fine mud, and more or less held

mingled with the waters. It is then deposited, and the lower deposits hardened again into rock, as we have seen. Then follows the lifting of some portions by the power of the heat within — which is by no means exhausted yet, as the volcanoes, and the constant elevations and subsidences of different portions of the earth's surface are ample evidence. The deeps of the sea, where continents now are, first became shallows. Then the muddy bottom appears and becomes dry land. In some places the up-bending strata have necessarily broken, and in mountain forms the underlying crop out topmost. Here in New England, in one place, the lowest rock of all upon which the water-deposited strata had been laid, broke through the rest, and became what we call the White Mountains; in another, the limestone strata, not wholly broken through, but thrust up in ridges, became the Green Mountains. Away on our western border, the fiery agency wrought with greater potency, and thrust up the lofty peaks of the Rocky Mountains. In process of time, except, of course, these loftiest peaks, which must be forever consigned to barrenness, the surface is clothed with vegetation. This is the natural order. The discoveries of Geology, however, do not reveal this earliest vegetable creation. So far as its discoveries say, animal

life, after the type of the shell-fish, the crab, and the star-fish, was first. No vegetable remains are so early as these, except some sea weeds. But notice what geologists say. They say that of necessity plant life must have been first. Plant life is sustained by inorganic matter — by soils, moisture, and the atmosphere. Animal life is not. It requires plant life to precede it. The geologists do not, therefore, regard the absence of vegetable remains, in the earliest period, as absolute evidence of the non-existence of plant life. Their order, therefore, is precisely that of the Mosaic record. And it would have been an objection to the Mosaic record, on the part of science, if it had not placed plant life first. Geology itself bearing testimony, the Mosaic record at this point is the superior witness of the two.

Beside the necessity of previous plant life, it is easy to see how in those earliest strata, which were afterwards subjected to great heat, vegetable remains would be destroyed, while the shells and spines of mollusks and radiates would be preserved. This is the third period.

The work of the fourth day is represented by Moses to have been the establishment of the sun, moon, and stars in the heavens, as henceforth the light-bearers of the earth, and the measurers of its time — its days, months,

and years. Of this Geology, of course, tells us nothing. It cannot reveal when the sun began to shine, nor when the atmosphere, heavy with vapor and gases, was clarified, and light from the sun, moon, and stars was first made to shine directly upon the earth. It can only testify when there was light from the existence of plant and animal life, but it cannot tell from what source that light came. You will notice that light was brought into existence at the very first. How it was maintained, especially in alternation with darkness, if it did so alternate, we do not know.* It is not declared. We have no concern with the question. But when we arrive at the work of the fourth day, we find that then the sun, moon, and stars are appointed to be light-bearers. The assertion, however, that "God made two great lights, the greater to rule the day, the lesser to rule the night; he made the stars, also," does not necessitate the creation of them all at this period. The sun and moon may have long been created. It is now only that they are constituted lights.

For the work of the fifth period the record

* "And the evening and the morning were the first day," "second day," &c., does not necessarily mean alternating darkness and light. It may mean the closing of the work of one period, and the institution of that of the following.

says: "And God said, Let the waters bring forth abundantly the moving creature that hath life, and fowl that may fly above the earth in the open firmament of heaven. And God created great whales, and every living creature that moveth, which the waters brought forth abundantly, after their kind, and every winged fowl after his kind; and God saw that it was good. And God blessed them, saying, Be fruitful, and multiply, and fill the waters in the seas, and let fowl multiply in the earth. And the evening and the morning were the fifth day."

Immediately after the age of mollusks, Geology tells us of a wonderful age of fishes, and following that an age of marvellous reptiles. From their long-time resting-places, their sepulchres in the sandstones and shales, have come forth multitudes of sharks and great fish, plated like our sturgeon with coats of mail, and such ugly, awkward monsters as the pterichthys of Hugh Miller—a creature shaped somewhat like a snow-shoe, with an arm at each side, and coated with a casing of thick, hard scales. Then follow the amphibious and monstrous reptiles, the huge megalosaurs, iguanodons, ichthyosaurs, and plesiosaurs. When one reads in Job about the leviathan, that "the flakes of his flesh are joined together; they are firm in them-

selves . . . they cannot be moved. When he raiseth himself up the mighty are afraid. The arrow cannot make him flee ; sling stones are turned with him into stubble. He maketh the deep to boil like a pot. He maketh a path to shine after him ;” one can hardly resist the thought that reference is had to some one of these monsters, which Geology reveals to us as existing in the carboniferous age. Then the multiplicity and variety of life, as well as the wonderful forms of it, revealed as existing in this age by Geology, is astonishing. By the testimony of the rocks, the waters swarmed with swimming inhabitants, and the air was filled with flying creatures. But what is more wonderful, we have not yet the animals of the dry land. They are not yet mentioned in the Mosaic record, nor do they yet appear in the Geologic. It is as if the land which has come into existence in these periods, and upon which vegetation is flourishing upon a scale of magnificent grandeur, were hardly out of the water, and were yet mostly in the form of swamps and bogs. The period of land animals, according to the stony science, is the following. So it is according to the Mosaic account ! It is the sixth day of the record.

Sixth day. “And God said, Let the earth bring forth the living creature after his kind,

cattle, and creeping (or prowling) thing (i. e., beasts of prey, not reptiles), and beast of the earth after his kind; and it was so. . . . And God said: Let us make man in our image; after our likeness; and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth on the earth. So God created man in his own image, in the image of God created he him; male and female created he them. . . . And the evening and the morning were the sixth day." This is the Scripture account. It is the sixth and last day of creation by that account. What, now, says Geology? It is the last period of Geology! Immediately after the age of the fishes and the great reptiles, is discovered the age of mammals and man! In the upper and latest strata, next below the soil, lie the bones of mastodons, megatheria, elephants, rhinoceroses, hippopotami, hyenas, bears, wolves, beavers, horses, hogs, dogs, and so on; all the variety of animals, both of living and of long extinct species. None of them are to be found in the previous age; none of their remains are mingled with those of the huge reptiles. That age had wholly passed away. Some violent geologic changes had intervened before this age of land animals, and then,

later, man came in. This is truly wonderful!

While penning these statements, I have had the latest geological works, especially the large and complete compendium of the science, by Professor Dana, published within the year, lying open before me, to carefully assure myself, as I have proceeded step by step, and see that I fell into no errors. You may therefore depend, my hearers, upon these representations being in accordance with the last results of investigation and discovery. And now that we have passed the two records in review one with the other, I ask if you will not say with me that the harmony which has appeared is not truly wonderful? The third, the fifth, and the sixth are the remarkable periods. "And God said, Let the waters under the heaven be gathered together unto one place, and let the dry land appear. And it was so." This was the third day. Looking into the corresponding geologic period, we see vast powers heaving in the bosom of the earth. The strata of the earth's surface are breaking and uplifting themselves. A few points appear here and there as islands in the vast all-surrounding ocean, the forerunners of the continents. Slowly and through long ages they rise, coming, indeed, like the tide, with oscillations, rising for a time,

then for a time falling, and then rising again, till all stand out, each continent, nearly as now. How could language more accurately, as well as concisely, describe the process, than that of the Mosaic account, written thousands of years before any of the revelations of geological science were known?

In the fifth day of the Mosaic record, the creative fiat fills the waters with swimming life, and the air with fowls. "And God created great whales, and every living creature that moveth, which the waters brought forth abundantly." Looking at the corresponding geological period, what wonderful forms and variety of life have we seen revealed! Types of the varieties now known, and beside them the great cetaceans, amphibians, and reptilians. Now that we know from science the strange and multitudinous forms of watery life in that age, do we not see that the language of the record is well fitted to describe them in the mass and concisely? Does it not seem to have been framed by one who knew of what he was speaking?

And in the sixth and last day are the creations, first of land animals, then of man. In Geology, in the last period, it is the same. Could the harmony well be more uniform and exact?

Now, let us ask, what is the argument of this harmony?

Here is an account of the creation of the world, written thousands of years ago. It is the most ancient writing in the world; the oldest and earliest record the world has. It was written thousands of years before there was a thought of such a science as Geology. Now, however, in these last days, this science has sprung into existence. It has turned over the stony leaves of the earth's crust, and read their records, with some undoubted truthfulness, from the earliest periods. And the story it tells in order, as near as is possible, is the story of this old written record! You do not find the periods marked off with distinct divisions. That the written record does; just as in some towns, you may look over the fields and see no boundary lines between them; they are not erected there; they exist only in the written deeds and county registries. But you find the order and succession the same.

If Geology is true, then does it not prove the Mosaic record true? There is no escaping such a conclusion. And if it proves it true, *it proves it also inspired*. For, if it is true, it is of necessity inspired. It is a description of events of which no man could, from the nature of the case, be witness; and, therefore no tra-

dition of human origin could be handed down. It could only have originated with the Creator himself. He alone can be the Author of the account.

And if the Bible is proved thus an inspired revelation in its very beginning, what is probable with regard to the remainder?

We are told by some, in particular, that the books of Moses are unhistorical; that they are the ancient records of that ancient people, the Hebrews, and, like the early history of every nation, they are mingled myth and tradition, and not to be at all received as sober, veritable history. But when science comes forward with her explicit testimony, and shows that the very first chapter of those books is inspired, what must we say is the likelihood with regard to the remainder.

THE NOACHIAN DELUGE AN HISTORICAL
VERITY.

THERE are those at the present day who have undertaken to pronounce the Five Books of Moses unhistorical. About thirty years ago, a distinguished German scholar and historian promulgated certain new principles of historical criticism. In accordance with these principles, he reconstructed the early history of Rome, giving the world a work in which, in his opinion, all that was mythic and legendary having been eliminated, a residuum of pure and solid history remained. A sad work was immediately begun. The Goths and Vandals of literature commenced their raid. This purifying process was to be applied in every direction. After Niebuhr had opened the way, a Wolf leaped into the field of Grecian poetry, and immediately Homer was transformed from one man into a series of men, and the Iliad and Odyssey were declared to be the work of many different minds, and the growth of several ages. Arnold, in England, followed in the

path with Latin history, and Grote with Grecian; the latter, without doubt, using his great master's principles with more prudence and caution, so that, notwithstanding, in his work we have the best history of Greece yet extant.

From these fields, others turned into biblical criticism; and as Niebuhr had given the world a history of Rome in which there were no demigods, no heroes, no myths, no prodigies, — not, indeed, that there should be such in history except as legends and the early poetry of history, — and every thing was resolved to its purely historic value, so a Strauss gives us a life of Christ, from which all that is miraculous and supranatural is pruned away, and nothing permitted to remain as actual truth but what is rational, comprehensible, and explicable by the generation of to-day, upon natural and well-known principles! The multitude which has thronged in this direction in Europe, and, indeed, in America, is great. Every part of Scripture they have seized and subjected to their unsparing and purblind anatomy; and now, at their hands, if we will believe it, there remains as veritable but a shred of the volume our fathers loved so well, and revered as the word of God. They have put it into their new machine of criticism, their quartz-crusher, and the portion which has come forth as a res-

iduc of the pure gold of history and divine truth is pitiably small. You have all, doubtless, heard of one of these men, who, a missionary in the wilds of Africa, has been turning the crank of his mill upon the books of Moses. I refer to Bishop Colenso, who is just now enjoying his day of notoriety. He, and such like, have put the narrative of the Creation, the account of the Fall, the story of the Flood, the destruction of Sodom, the exodus from Egypt, the staying of the sun and moon at the command of Joshua, &c., to the test of their trial, and lo! they vanish into the thin air of legend and myth.

One remarkable fact about this test of rationalism is, that in the hands of the different members of its party it yields different results. Applied to Bible history, it proves a very thorough solvent, and washes away a vast deal that is unsound and impure. But applied, at the hands of a Lepsius and a Bunsen, to the merest fragments of a fabling Egyptian Manetho, and the guesses of hieroglyphic readers from monumental records, and these start up at once into all the magnitude and vigor of genuine history!

So far as the account of the creation is concerned, inspiration has found a new champion in the science of Geology, and, as we have seen, the Bible begins at least as the word of

God. The first chapter of Genesis is not only veritable history, but must have been derived from the direct revelation of God.

We turn to-night to the story of the Deluge ; and I think it will as clearly appear, as in the case of the account of the creation, that it is not a mere myth and poetical legend of early Hebrew history, but a part of the genuine history of the world.

The event is related in the sixth, seventh, and eighth chapters of Genesis. Let me say, at the outset, that there are two things for which I am not going to contend. First, that the deluge was *universal*, in the sense in which we now should understand that term. Second, that pairs of all the different kinds of animals, birds, insects, and reptiles, in the whole world, were gathered into the ark.

One acknowledged and undeniable law for the interpretation of the Bible, as of any other ancient writing, or any book whatever, is, that the language of any part, and of the whole, be received and understood in the sense in which it was used, or with the same extent of meaning, and that only, which it must then have necessarily had. This is too evident to need farther proof. It is only by this rule that we can properly interpret the language of our Saviour and his apostles, and evolve their teach-

ings, as well as the poetry of Homer, the history of Herodotus, and the philosophy of Plato. When, then, we find in this ancient account of the deluge the assertion that "the waters prevailed exceedingly upon the earth; and all the high hills that were *under the whole heaven* were covered, . . . and all flesh died that moved upon the earth, both of fowl, and of cattle, and of beast, and of every creeping thing that creepeth upon the earth, and every man; all in whose nostrils was the breath of life, of all that was in the dry land, died;" the question arises, What really did this general and inclusive language mean with those who used it? It is not for us to ask what it would mean now, but what did it mean then? And no one, probably, will dispute but that the expressions "the whole earth," "all under the heaven," "all the living creatures in the earth," meant the whole earth as then known, and all under the heaven as then conceived and thought to be the whole heaven, and all the living creatures that lived in that known world. We very well know that the world, as now known, was not the world of the ancients; that their whole earth under the heavens was that portion of the world then inhabited; that in their minds it was a flat surface, of small extent in comparison with its real magnitude, surrounded at its edge

with a mingled impassable region of sky and ocean. And there is no difficulty in understanding that the Holy Spirit, in inspiring the writers of those days, either directly, or in the way of superintendence, would leave them untrammelled in the use of their own language, with all its figures and idioms, provided only that it conveyed the absolute truth to the mind at that time. When, therefore, we find such general expressions as these, we are to understand them as meaning their "whole world," &c., not ours. We should understand them as we know they must have understood them, with the limitations to their knowledge, unless we have reason to the contrary, as in the case of promises and prophecies, which were intended to mean more than was understood by those to whom they were first delivered, and the people of their times. There are many instances in which we are shown at once that these general absolute expressions are to be received in their limited sense. For example, it is said (Deut. ii. 25) that the fear of Israel should be put upon the nations under the whole heaven. So it is said that all countries came into Egypt to Joseph to buy corn (Gen. xli. 57); that the Queen of Sheba came to hear the wisdom of Solomon from the uttermost parts of the earth (Matt. xli. 42); that on the day of Pentecost there

were Jews assembled at Jerusalem out of every nation under heaven (Acts ii. 5); and that the gospel was preached to every creature under heaven (Col. i. 23). Nothing is more obvious than that these expressions are not to be understood literally as we should understand them now, but as they were understood when used. Of course the Bible language had to be that which was used, and would be understood at the time its various parts were written, else it would not be the truth to the people of that time. Where the Queen of Sheba lived, was the uttermost parts of the earth in the mind of the Jew at the time of our Lord, though it would not be now to us. The fear of Israel, we know, was put upon all the surrounding nations, and we have no reason for supposing upon any others; upon those people, for instance, who might then be inhabiting this unknown continent. They were all the nations under the whole heaven to the Jews. When this language was used to the Jews, it conveyed a precise idea to them, and the truth. We could not expect it to be taken into account what that phraseology might mean ages afterward, and in different tongues and climes.

When, then, it is said in the account of the deluge that "all the high hills that were under the whole heaven were covered, . . . and all

flesh died . . . all in whose nostrils was the breath of life, of all that was in the dry land, died," I do not feel myself bound to think that the whole heaven, as we should understand the phrase, was meant, nor all flesh. I am satisfied that it may, and beyond all question does, mean that portion of the earth then known and inhabited. The human population of the earth had not then become very great, nor, in any probability, very extended. We have no reason to suppose that it had spread very far in any direction from the primal centre of creation. What reason, then, for an absolutely universal deluge? The demands of the case are met, if we understand only the populated region of the earth, — what was then the world to man, — to have been subject to the flood.

Taking this view with regard to the extent of the deluge, of course there is no reason for supposing that pairs of absolutely all kinds of living creatures should be preserved in the ark. With the progress of knowledge, we have come now to know that the different kinds and species of animals, birds, insects, and reptiles, of those classes which would have been destroyed by the flood, are very many. Sir Walter Raleigh, in his time, found it easy to show that the ark could accommodate pairs of all kinds of creatures, because there were but about ninety dif-

ferent kinds then known. In the time of Buffon, the number had doubled. In 1856, the latest authority I have at hand, the number of species of known animals had become one thousand six hundred and fifty-eight; of birds, six thousand two hundred and sixty-six; of reptiles, six hundred and forty-two; in all, eight thousand five hundred and sixty-six. Insects we leave out of account. Passing by the difficulty, not to say the impossibility, of having creatures gathered from every part of the earth, from different climates, and widely separated regions,—as would necessarily be the case if some of *all* kinds were to be preserved,*—we should find it sufficiently difficult to provide for them in the ark.

But if only that portion of the world inhabited by man was subjected to the catastrophe, why save any of the animals, and especially why save the birds, in the ark? Why not leave the region to be populated again with these creatures from the surrounding regions? First, for the convenience and comfort of man. The useful animals might be very long in distributing themselves, by the laws of natural multiplication, over the depopulated country. It would

* For example, the polar bear, the sloth of South America, and the kangaroo of Australia, each of which is peculiar to its country.

be the shortest and easiest method of providing for the wants of the human family, even if it were not a necessity. But there was a necessity. It is now well understood, in natural science, that life exists by centres. For example, the rhinoceros has a central locality, from which it spreads to only a certain limit. So with birds, fishes, and vegetation. Naturalists call these central localities centres of distribution. "We now know," says Hugh Miller, "that every great continent has its own peculiar fauna ('fauna' includes all kinds of animal life); that the original centres of distribution must have been not one, but many; further, that the areas or circles around these centres must have been occupied by their pristine animals in ages long anterior to that of the Noachian deluge." This being the case, it is easy to see that the fauna of any large district of the earth being destroyed, it would be impossible to replace it wholly unless by new creation. What was required, then, was that the fauna of that region only affected by the deluge should be preserved; and for this we can readily conceive that the ark, whose dimensions, at the least calculation, gave it a capacity of stowage equal to that of eighteen ships of the line of twenty-two hundred tons each, might have been sufficient. All the

animals, birds, insects, and reptiles referred to, unquestionably, were those of that region, which was all the world under the whole heaven to the men of that day, and those animals, &c., were all the living creatures of the world.

We come now to the fact of a deluge. The question is, "Is the deluge a truth of history?" We believe and assert that it is. What are our reasons?

I. The strong probability which^r arises from the fact of its place and relations in this ancient record, which has been proved, in part, to be inspired, and which we believe to be inspired in the whole. If it is inspired in the whole, of course the story of the deluge is a historic fact. Inspiration is history, or truth, upon divine authority. But the question of inspiration we are waiving for the time being, except so far as we prove it for ourselves.

This account, then, has a place in an ancient record, which forms a part of the most ancient history we have. There are no other writings so old as the book of Genesis, and after it, the remaining books of Moses, unless it be the book of Job. There is no other than this Hebrew hand which carries back the torch of history so far, and throws so certain light. This is the only history we have throwing any

light upon the origin and distribution of the races and early nations. Scientific research starts from it, and it is a fact of no little importance in our argument that it always returns to it and confirms it. We have yet to learn that scientific research, in tracing back the pedigree of races, and following the currents of migration and distribution, has been able to correct the statements which are made in this ancient record in any respect.

Furthermore, as the line of this history comes down toward modern times, where the parallel lines of other history come into existence, it is only confirmed more and more as a truthful, historic record. In its sphere, as a history, there is none so perfect and reliable. A strong probability, therefore, is created in its favor. If it is proved sterling history in different parts, the probability is that it is so in the whole. It is positive evidence alone which can turn the scale to the contrary.

Add at this point, now, the fact that the first chapter of this book is proved to be inspired, what is the probability with regard to the rest? Is it probable that the Holy Spirit would authenticate the beginning of a continuous book, and not the whole? Or, at least, would not a writer, of such character as to be chosen for the inspiration of a part of his work, be

one who would relate only historic truth in the remainder? Does not the direct inspiration of the part show a divine authentication of the whole? It is most reasonable so to believe.

II. It has a place in the history of the world, aside from sacred Scripture.

No written, authentic, contemporaneous history, as has just been said, in any nation, goes back so far. Nevertheless, "the fact of a deluge which once destroyed the whole race, with the exception of a few individuals, is one of the best proved events in all past history. It is sustained by an array of evidence as strong as is possible in regard to an event which lies so far back of all written memorials — more impressive, indeed, than mere documents could furnish. *It has been branded into the memory of the nations*, and has come down from time immemorial, in all parts of the globe." * Go wherever you will, over all the earth, among whatever nations, and you find, in some form, traces of this event in legend, or tradition, or in monumental history. The student of the ancient languages finds it among the myths and legends of early Greek and Roman history. Oriental scholars and travellers have found it everywhere among the Asiatic nations, from

* Professor Bartlett, *Bibliotheca Sacra*, April, 1863.

the Red Sea through Persia, India, China, and northerly to the Frozen Ocean. Humboldt found it among the Orinoco Indians, the primitive Brazilians, and Peruvians. It also existed among the Islanders of the South Seas, and the Indians of Terra Firma and North America. Its record exists on the rudely sculptured monuments of a lost race in Mexico, and in the sacred book of the Parsees and the Scandinavian Edda. Hamilton Smith, an English writer upon the natural history of man, says that "diluvian records abound with all the Caucasian and cognate races." There are probably, he says, more than one hundred fabulous legends, religious and mythical, where the patriarch and his family are designated under different names, circumstances, and localities.

I will relate, as examples, two or three of these traditions.

Humboldt, among the Orinoco Indians, found it in the following form: "The belief in a great deluge," he says, "is not confined to one nation singly—the Tamanacs: it makes part of a system of historical tradition, of which we find scattered notions among the Maypures of the great cataracts; among the Indians of the Rio Erevato, which runs into the Caura; and among almost all the tribes of the Upper Orinoco. When the Tamanacs are asked how the

human race survived this great deluge, — the age of water of the Mexicans, — they say, a man and woman saved themselves on a high mountain called Tamanacu, situated on the banks of the Asiveru, and casting behind them over their heads the fruits of the *Mauritia* palm-tree, they saw the seeds contained in these fruits produce men and women, who reseeded the earth." Humboldt remarks here the likeness which all, who have read Grecian mythology, must observe between this and the Grecian story. He says, "Thus we find in all simplicity, among nations in a savage state, a tradition which the Greeks embellished with all the charms of the imagination." The Grecian story was this: The world being very wicked, was doomed by the gods to destruction. For this purpose there was a mighty eruption of water from the earth, attended with heavy showers from above. Deucalion and his wife alone were preserved, and that on account of their piety. They were saved in a great ark, which Deucalion had built. There followed him into this ark animals of every species, by pairs, — boars, lions, horses, serpents, — whatever lived upon the face of the earth; "all of which he received into the ark, and experienced no evil from them." This is Lucian's account. Plutarch adds, that "Deucalion, as his voyage was draw-

ing to a close, sent out a dove, which coming in a short time back to him, indicated that the waters still covered the earth; but which, on a second occasion, failed to return, or, as some say, returned to him with mud-stained feet, and thus indicated the abatement of the flood." The end of the story is, that Deucalion and his wife, after going forth from the ark, consulted the oracle to learn how the earth was to be re-peopled. In accordance with the command of the oracle, they threw stones over their heads behind them, and those which Deucalion threw became men, those which his wife threw, women. In this latter part, you perceive, is the striking resemblance of the Orinoco tradition.

Among the North American Indians the tradition is, that "the father of all their tribes being warned, in a dream, that the flood was coming, built a raft, on which he preserved his family, and pairs of all the animals, and which drifted about for many months, until at length a new earth was made for their reception by the mighty man above." In the Scandinavian Edda it takes a curious form. "On the death of the great giant Ymir, whose flesh and bones form the rocks and soils of the earth, and who was slain by the early gods, his blood, which now constitutes the ocean, rushed so copiously

out of his wounds, that all the old race of the lesser giants, his offspring, were drowned in the flood which it occasioned, save one, and he, by escaping on board his bark, with his wife, outlived the deluge." The Hindu tradition, as brought to light by the researches of Sir William Jones, is the only one I will add. The holy Satyavrata was a maritime prince. One day he was visited by the god Vishnu, and informed that "in seven days, all creatures who had offended him, the god, should be destroyed by a deluge; but Satyavrata should be preserved in a vessel miraculously formed. He was therefore to take all kinds of medicinal herbs and esculent grain for food, and together with the seven holy men, their wives, and pairs of all animals, enter the ark without fear. After seven days, during which Satyavrata had conformed in all respects to the instructions given him, the ocean began to overflow the coasts, and the earth to be flooded by constant rains, when a large vessel was seen coming, floating shorewards on the rising waters, which the prince and the seven nishis entered, with their wives, all laden with plants and grain, and accompanied by the animals."

Thus we see how the story has its place in the early traditional history of every people. How can we possibly deny a foundation in fact

for such a general tradition? What else can possibly be its source? How else can we account for it than by admitting that it took place, and supposing that every branch of the human family, as it moved away from the centre of distribution after the event, bore away the remembrance of it, and its history preserved in tradition? To account for an existing fact in the historical world, we must admit the historical verity of the Noachian deluge. And the facts which have been considered we regard as establishing the historical verity of the deluge beyond question.

There are yet, however, two objections, or difficulties, perhaps, which need to be considered.

First. The geological difficulties. It will be said by some that geology yields us no proofs of such a deluge, — that the general regularity of geological changes conflicts with the idea of such a sudden and ruinous catastrophe. An old objection, under this head, used to be, that it was impossible that all the mountains of the earth should be covered so that the highest peak should be fifteen cubits, or twenty-two and one half feet, under water. There was no way conceivable in which all the water of the oceans even could be made to do it. But when this objection was urged, the

fact of geology, that all the land surface of the globe is subject to elevations and depressions from internal force, had not become familiar, if at all known. Geology and revelation concur in making the land surface once wholly under water. When the fiat went forth, "Let dry land appear," the continents and islands slowly upheaved from their watery bed, and for the first time diversified the surface of the globe with mountain, hill, and valley. Evidently, if the Maker of the earth saw fit to cause the waters to prevail again, as at first, he could easily do so. It is but to let the continents and islands sink to their pristine place. Or, let what are now the ocean beds be but partially elevated, and the continents would consequently sink, and the ocean waters regain possession of the whole surface.

This objection, too, was made against a universal deluge. It could not be raised against a limited one—such as we have seen the necessities, only, of the case demand. The other geological difficulties are really no difficulties. Let it be admitted that geology affords no proofs of a deluge as yet. That is not decisive evidence to the contrary. No traces, possibly, were left which could be recognized. Perhaps it would be impossible to distinguish them from the marks of other dilu-

vial action. Put the spade or the pick into the ground any where, — dig but a well or a reservoir, — and you have diluvial marks in abundance. How can you assign to them their particular and respective causes? You can sometimes say that there have been two or three different actions of water, and perhaps at separate times; but you cannot say that any one of them had any thing to do with the deluge, or that it had not. There are certainly marks of a great diluvial catastrophe, which occurred since the earth was abundantly inhabited both by man and animals, in the caves and ancient river beds of Europe, as we have seen in the lecture upon the Antiquity of the Race. But whether there are traces of the Noachian deluge or not, it is impossible to say.

As to the assertion that the general regularity of geologic changes conflicts with the idea of such a catastrophe, it is sufficient to say that it is founded upon a limited geological acquaintance. It is not the fact. The testimony of geology is, that the elevation of the continents above the oceans was a uniform upward motion to a certain point, and there remaining fixed. It was an oscillating motion. Parts rose and sank again. A region once elevated would subside. Perhaps it would remain elevated long enough to be covered

with vegetation, even large trees. The Isle of Portland, England, whence the famous Portland stone comes, shows a series of such elevations and subsidences.* The indications from geology are, that volcanic disturbances were great and widespread in the earlier history of the globe, and have only been growing less and less in time. The Mosaic deluge may have only been the last of importance in the series. Hamilton Smith, in his Natural History of Man, already referred to, remarks: "The present superficial character of the earth may be a result of the combined action of sudden, violent disruptions, and long durations of gradual disintegrations. . . . Taking the newer pliocene, or second tertiary age, to be coincident with the mighty changes of sea and shore, when volcanic disturbances were still in active operation, and that convulsive state which subsequent catastrophes and *the succession of ages* have as yet only reduced in number and moderated in force, when first a congenial atmosphere had begun to prevail, we have an epoch which would include the Mosaic deluge, and terminate with that greatest of all recorded destructions; one, moreover, supported by innumerable historical confirmations." (p. 24.) In another connection, he remarks, "Whether

* So the valley of the Mississippi, near Vicksburg.

such an existence (of the race) dates so far back as six thousand years, or seven thousand three hundred and twenty-two, . . . is not a question of importance; since between the dates of man's creation and the present, there is abundant proof, not only of one general diluvian catastrophe, but also of many others, more or less important; and these alone, in a great measure, are sufficient cause for the dispersion of man to all the points of the earth where he is found to reside, and in many places where the marks of his presence evidently date back to a very remote period." (p. 112.) The testimony is, that whole regions have been submerged on the south and east of Asia, particularly between the coasts of Malabar and Ceylon; and vast provinces have disappeared in the Chinese and Japan seas.* So late as within the last twenty years a deluge took place in the maritime provinces of the Yellow Sea, the waters apparently rising in the Gulf of Pechelee, occasioning the destruction of several hundred thousand human lives, innumerable cattle, the loss of all the houses and provisions, and the total ruin of above sixteen millions of the population, who were driven to seek shelter and food in the upland provinces.†

* Smith, p. 27.

† Ibid., p. 44.

The geological aspect of the question is therefore in favor instead of against. Indeed, according to Hamilton Smith again, a diluvian convulsion, evidently occurring during the present zoölogy, passed over Western Asia, from south to north, affecting the Arctic coast, snapping a portion of the cardinating ridge, and causing the surface of the earth to sink below the level of any known dry land, excepting the basin of the Dead Sea. Thus the Caspian formed an abyss; the Aral Lake, and farther west, perhaps the Black Sea, shared the same convulsion.*

Upon the appearances of this remarkable region Hugh Miller formed his theory of the Mosaic deluge. It is as follows, gathered from his volume entitled, "The Testimony of the Rocks;" and I present it as deserving general attention, and, to my own mind, as completely satisfactory, in the present state both of biblical criticism and geological science.

Lying north of the Indian Ocean, opening south upon the Arabian Sea, and north-west at the Gulf of Finland and White Sea, is this large region in Europe and Asia; and, nearly equal to all Europe in area, it is a cavity upon the surface of the globe. Its rivers—the Volga, Oural, Kour, and Amoo are its largest

* Smith, p. 28.

— do not run outward to the ocean, but inwards, emptying into the inland Caspian and Aral seas, or losing themselves, in the eastern part of the tract, in the lakes of a rainless district. Many parts of this region are under the level of the ocean. The surface of the Caspian is eighty-three feet below the Black Sea, and some of the great steppes are about thirty feet below. This is the same region, you will bear in mind, to which Hamilton Smith refers, and includes the great recognized centre of the human family. Now, how easy it is to see, as Hugh Miller points out, that in a volcanic convulsion a communication might be opened with the ocean, either at the Gulf of Finland or at the Black Sea, or both, and thus the fountains of the great deep be actually broken up. Such a convulsion would naturally be accompanied with violent storms of rain. Suppose this area to have been depressed gradually for forty days. That would be at the rate of about four hundred feet per diem, a rate not twice greater than that at which the tide rises at the Straits of Magellan, and which would have rendered itself apparent as but a persistent inward flowing of the sea. At the end of the fortieth day, the centre of this district would be sunk sixteen thousand feet, — a depth sufficiently profound to bury the loftiest mountains of the

district, and yet having a gradient declination of but sixteen feet to the mile, the contour of its hills and plains would remain apparently what they had before been, — the doomed inhabitants would see but the water rising along the mountain sides, and one refuge after another swept away, till the last witness of the scene would have perished, and the last hilltop would have disappeared.

Thus it might have been. While yet the whole race, though some millions in number, were contained in that central region, if their Creator, for reasons, saw fit to destroy them at once in this manner, it could have been done, and by means which geologists would not call at all miraculous. And it would have been to the race, and to the fauna of that region, a universal deluge. And there are some evidences in geology, as we have seen, that there was once such a catastrophe.

The remaining difficulty — and with it I conclude — is, the improbability that God would do such a thing. It is objected that the great and omnipotent God, possessed of the dignity of the supreme control and majesty of the universe, and being at the same time an infinitely merciful and forbearing Father to all his creatures, would not be likely to destroy them in this manner, whatever their wicked-

ness. To represent that God sent a flood to sweep away men, women, and children,—a whole race; and animals, birds, insects, and reptiles,—the innocent and helpless with the guilty, in wrathful punishment; and when he, with his foreknowledge, must know that as soon again as the earth was re-peopled from those who were spared, just and righteous as they might be, it would be filled with like heaven-crying iniquity,—is to impeach the divine goodness, detract from the dignity of divine character, represent God as actuated by unworthy motives, and charge him with weakness and folly.

I answer, we are little competent to sit in judgment upon divine acts. Especially to judge thus of the divine hand in the condign punishment of the antediluvians by a flood, is to judge of an act from a human standpoint, at a very great distance in time and in moral regard. We do not, we cannot know, so as to judge, the reasons which existed, and which the divine mind saw. We cannot climb to the high point whence God looked upon the world and its wants, what it needed then, what was right and fitting treatment, and what was needed for it with reference to the ages to come. There are many things now, which, in the best exercise of our ability, we should say

God would not be likely to do. We should have said that God, being such as he is, would not have been likely to make man at all with the liability to sin, much more with the certainty of becoming what we see the race to-day. We should say that God would not have been likely to permit wars, and thus for portions of the human race to sweep away one another, as they so often have, in deluges of blood. We should say that he would not be likely to permit pestilences and plagues, terrible accidents, famines, persecutions, the sufferings of poverty, innocence, and the like. In 1421 a great submersion of land occurred in Holland, when the waters of the Meuse and Waal suddenly overwhelmed seventy-two villages, and one hundred thousand human beings were lost. The whole region is now a huge waste of bog, overgrown with reeds. God permitted that. In 1665 the plague visited the city of London. In one week it swept away ten thousand victims, and, during its prevalence, more than one hundred thousand. The great city, for that time, was made a city of terrors. At first the inhabitants began to disperse. But soon the people of the surrounding country, in self-defence, met them in the ways and beat them back. All business was stopped. Fires were built in the streets, and kept burning, for dis-

infection. Red crosses were painted on the doors of the houses infected, with the words above them, "Lord, have mercy on us!" People avoided each other in the street, and no wheels, for weeks and months, rattled over the pavements, save those of the dead-carts, which went around by night, once in twenty-four hours, accompanied by flaming torches and a tinkling bell, to receive the dead. No friends were permitted to follow their dead to the last resting-place, and no burial service was allowed. God permitted that. In his providence, he was its efficient worker. Here, two or three years ago, a Pemberton Mill fell to the ground, overwhelming scores of persons in its ruins, and, before a tithe of the half-crushed bodies could be extricated, the ruins caught fire, and, as if it were not enough to be helplessly crushed and mangled, it was added to the agonies of some to be burned to death! A few years ago too, in midwinter, fearfully cold, so that all our shore was transformed from rocks and beaches into bowlders, crags, and cliffs of ice, in the midst of a blinding snow storm, a bark, pursuing her homeward voyage, struck on yonder rocks, and in a few moments — no eye but God's looking on — was ground to pieces, and every soul on board was floating, a lifeless corpse, on the sea!

What shall we say of these things—of the vast catalogue that we could not name if we were to spend a whole lifetime? Should we say that God would be likely to permit them? But he does; and therefore there are wise and good reasons, consistent with his justice and benevolence. We cannot doubt that, although we are not able to comprehend and explain it. We cannot, therefore, say that God would not be likely to have done what is recorded as an act of his judgment upon the ancient world. Indeed, we cannot but say with Hugh Miller, that the deluge may have been as much an act of mercy to the race as of judgment. “Even in our own times, as happened in New Zealand during the present century, and in Tahiti about the close of the last, tribes restricted to one tract of country, when seized by the madness of conquest, have narrowly escaped extermination. We know that, in some instances, better have been destroyed by worse races; that the more refined have at times yielded to the more barbarous,—yielded so entirely, that all that survived of vast populations, and a comparatively high civilization, have been broken temples, and great burial mounds locked up in the solitudes of deep forests; and further, that whole peoples, exhausted by their vices, have sunk into such a state of depres-

sion and decline, that, unable any longer to supply the inevitable waste of nature, they have dropped into extinction. And such may have been the condition of the human race during that period of portentous evil and violence which preceded the deluge."

Our only question is, Is it a fact? And that, I think, is abundantly proved by what we have seen. And being a fact, we find in the narrative of it in the Mosaic record only another evidence to the truthful and historical character of that record. And, from what we have now seen with reference to this account and the account of the creation, we may well rejoice in all the work which science and criticism are accomplishing. They will only exhibit more and more the foundations of God's word, and show that they are set everlastingly in the truth.

THE MONUMENTS OF EGYPT, AND THEIR TESTIMONY TO THE TRUTH.

I PROPOSE to speak to-night of that wonderful land whose history runs back to a period contemporaneous with the earliest historical notices we have of any land upon the globe, and from whose soil sprang the arts of civilization of Greece and of Rome; and of its monuments, which to-day have a hoary antiquity, in the presence of which Athenian Acropolis and Roman Coliseum become things of yesterday. Upon the banks of the Nile we may behold magnificent piles of architecture, not yet prostrated by the rude changes of war and revolution which have swept over the land, nor consumed by the tooth of time, once looked upon by Abraham, and seen as familiar objects by Joseph and Moses. Those wonders of the world, the pyramids of Ghizeh, upon the western bank of the river, a little above Cairo, date about twenty-three hundred years

before Christ, or more than four thousand years ago, and more than one thousand years before the Trojan war; and the splendid ruins of Thebes, known as the temples and colonnades of Luxor and Karnac, were already ruins, very much as they now are, when infant Rome had just begun to nourish her giant power upon the seven eternal hills. Our own national history wears not yet the age of a century upon its brow, and our whole history, national and colonial, has arrived at an age only a little more than two centuries. The history of England, from the time of William the Conqueror, is just eight hundred years old. But the Egypt, the monuments of whose unrivalled grandeur bestud the banks of the Nile to-day, had existed, and enacted a history of more than a thousand years, before even ancient Greece had prepared for a single page.

What her wealth, and art, and civilization were, we may gather from her monuments to-day remaining. All the wealth and grandeur of any of the modern nations have not erected piles of architecture which, were ruin to sweep over those nations to-day, would, a hundred years from now, tell a story of the tithe of wealth and power those monuments of Egypt declare to have existed more than three

and four thousand years ago.* The massiveness of architecture tells of mechanical powers and instruments, of the use of which we have no knowledge or conception. In front of the Memnonium — a temple at Thebes — lies prostrate the statue of King Rameses, “the most stupendous statue ever reared in the world.” Originally, it is said to have been seventy-five feet high, and twenty-three across the shoulders. It was hewn from one solid piece of granite, weighing upwards of eight hundred tons, and transported, by some means unknown to modern mechanical art, more than one hundred miles from the quarry.

We might be inclined to think that the art of Egypt was rude. Perhaps, upon a slight acquaintance, we should characterize it as having the massiveness of grandeur, but lacking the grace of beauty. But travellers tell us that, “Rude, stiff, and even grotesque as many of the

* “As I gazed upon these ruins (Karnac and Luxor) of forty centuries, and imagined the Thebes that then was, New York dwindled into an infant in the lap of a giant. Yes, proud upstart of this nineteenth century, the so-called Empire City, commercial emporium of the West, great metropolis of the New World, if thy rivers should sweep over thee and bury thee a while, not all the stone of the Croton Reservoir, and the City Hall, and the Astor House, and of a hundred churches, forsooth, would make one pile like Karnac; nor could any of these furnish a single stone for the lintels of its gates.” — *J. P. Thompson, D. D., Egypt, Past and Present*, p. 149.

old Egyptian monuments appear, because of the religious and conventional forms to which the artists were obliged to adhere, there are yet traces of the grand and the beautiful, of a chaste and severe simplicity, and of a refined and delicate taste worthy of the æsthetic atmosphere of Greece. 'The vases of the Egyptians frequently bear so strong a resemblance to those of Greece, that we might feel disposed to consider them borrowed from Greek models, did not their known antiquity forbid such a conclusion; and many have mistaken the ornamental devices attached to them, and to other fancy works of Egyptian art, for the productions of Greek sculptors.' * Greek artists, we are told, went to Egypt to study, as modern artists now go to Italy; and in the same way, those who afterwards became the famous poets, historians, and philosophers of Greece, went to Egypt for travel and study, some of them residing for years in the universities under the care of the priests, just as many now go from us to travel and study in Europe.

This is the Egypt whose fate it has been to wait till the nineteenth century of the Christian era to find interpreters and readers of her own recorded history.

* Dr. Thompson, p. 266.

The monuments of Egypt have been a wonder of the world, not only as magnificent remains of departed grandeur, but because they have borne upon their sides and in their recesses the evident signs of an historical or other record. There were carved pictures, and ever-recurring forms of animals, birds, instruments, and material things, in such relation as to convince every observer that they were the forms of a sign language. Indeed, from notices in the Greek historians, they were known to be such, and were called *hieroglyphics* — sacred sculpture-writing. And thus for ages the civilized world have been gazing upon a written record, upon the sides of those obelisks, pillars, and temple walls, knowing it to be such, but unable to read a single word or interpret a single sign. The hieroglyphic tongue was veritably a dead language.

But it was ordained that, in the closing year of the last century, the clew should be found which should lead to the interpretation of the signs, and confer the power to read the language, and thus make those dead, unmeaning inscriptions living and speaking words. In that year Egypt was a theatre of contest between England and France. The French troops were occupying Alexandria. An officer of artillery, superintending the repair of an

earthwork at Fort St. Julien, on the Rosetta branch of the Nile; discovered a block of black sienite, bearing upon its face an inscription in three languages, the Greek, the demotic, or common language of Egypt, and the ancient hieroglyphic. The Greek inscription was found to relate to the coronation of Ptolemy Epiphanes, in the second century before Christ, and the value of the stone, as possibly furnishing a clew to the interpretation of the hieroglyphics, was at once perceived by the French savans who accompanied Napoleon in that expedition. The success of the English threw the stone into their hands, and it is now in the British Museum at London; but its discovery is due to the French, and also the deciphering of the other inscriptions.

This process was very curious — I may say wonderful. It was assumed, in the first place, that the hieroglyphic inscription was a repetition of the other two. It was then noticed that a hieroglyph, called a *cartouch* — an oblong enclosure, containing certain figures, being to its owner, perhaps, what an escutcheon was in heraldry — occurred in the hieroglyphic inscription as often as the name Ptolemy occurred in the Greek. It was assumed, therefore, to be his name in hieroglyphs. In the same way the name of Cleopatra was deciphered on an

obelisk brought from Philæ. These two names contain several of the same letters—P., T., O., and E. Observing the hieroglyphic characters which appeared to have the powers of these letters, the nucleus of an alphabet was obtained, and the process of investigation being carried on, additions fast accrued, and the ability was acquired of reading, with considerable certainty, records which have been locked up in silence for more than thirty centuries.

We are not to suppose that perfect accuracy has been yet attained. On the other hand, each year is making its additions to the science of reading these stony pages of history. And, it may be added, each year likewise confirms the truth of the discovery. The same method was afterwards applied to the inscriptions discovered by Layard at Nineveh with success; and in the same way, records made by Nebuchadnezzar six hundred years before Christ have been read in this nineteenth century after Christ.

Every one must perceive at a glance the bearing which these records would be likely to have upon the Bible. We look at once for confirmations or contradictions. The Bible has much to do with ancient Egyptian history. The ancient people to whom it was given, and whose history it is, as a peculiar people of

God, had much to do with Egypt. They were dwellers there for a period at least of two hundred and fifteen years, and a part of that time as slaves. They are represented as delivered from their slavery in a wonderful manner, and their exodus from the land is represented to have taken place at about a certain date in the reign of a certain king. Their leader, too, the historian of their early career and the compiler of their earliest records, was asserted to have been reared at the Egyptian court, and to have left its society, rank, luxury, and prospects of ease, influence, and power, for the sake of his own oppressed and down-trodden people. We are led to expect among them, therefore, traces of Egyptian habits, manners, and customs — some of the relics of Egyptian residence and life ; and, in the hieroglyphic records, either confirmations or contradictions of these accounts in the Hebrew history.

The first point of bearing, then, in these discoveries, is upon the question of chronology.

The French savans, being of the Voltairean school, were ready to seize at once upon any and every thing which would aid in breaking down the authority of the Bible, and loudly proclaim it. Accordingly, to every ancient remain they were inclined to attribute a very great antiquity. They were disposed to see

every where inconsistencies with the Bible, and marks of contradiction to it. In the last lecture, I alluded to the temple of Denderah. Denderah is a little village far up the Nile, nearly up to Thebes. Its temple is a well-preserved edifice, and a fine specimen of Egyptian architecture. Before the interpretation of the hieroglyphics was discovered, the astronomical figures—in particular, a zodiac—painted upon its ceiling, were thought to indicate a very great antiquity. The zodiac represented a position of the equinoctial points, which, by the law of the precession of the equinoxes, could only have existed tens of thousands of years ago. Immediately the savans raised a shout of triumph. “Where, now, is the Bible?” they asked. “Your pretended inspired book makes the world but about six thousand years old; and here we have ocular demonstration that it is at least five times as old! Here is an ancient ruin, which was built thousands of years before the world was created, according to the Bible.” But their jubilation proved of short continuance. When the hieroglyphs were interpreted, it was found that the temple belonged to the age of the Roman Cæsars, the names of Trajan and Domitian being inscribed at the entrance, and the cartouches of Cleopatra and Cæsarion, her son

by Julius Cæsar, occurring in profusion upon the interior!

The argument against the Bible would not have been conclusive if the discovery of the true date of the temple had not been made. It would have remained to be proved that the painting was genuine—made at the time it represented, and not a fiction of a people who, like the Chinese, loved to magnify their antiquity.

But it is still maintained by distinguished Egyptologists that the discoveries in Egypt are evidence and proof of a much greater antiquity than the received chronology, derived from the Bible, will allow. Chevalier Bunsen, the distinguished author of "Egypt's Place in Universal History," makes the date of the earliest Egyptian king three thousand six hundred and forty-three years before Christ. Lepsius, another distinguished Egyptologist, makes it three thousand eight hundred and ninety-three years before Christ. Our common chronology makes the deluge but two thousand three hundred and forty-eight years before Christ, so that there is here, at least, a discrepancy of thirteen hundred or fifteen hundred years. The Egyptologists do not make these dates so ancient because they find any certain record upon the monuments. The case is this.

Manetho is a name familiar to students of ancient history as that of an accredited historian of Egypt. He was an Egyptian priest, living about three hundred years before Christ. His own work is lost, and the only access modern scholars have to it is through extracts preserved in other ancient writers. By this writer, a period of three thousand five hundred and fifty-five years was given to the succession of Egyptian kings. As this was so discrepant with the received authorities, and moreover was coupled with a fabulous chronology of the reigns of gods, demigods, and heroes for about twenty-five thousand years previous to the kings, his authority heretofore has been considered of little value. The discoveries upon the monuments, however, have revealed lists of kings which correspond with the lists given by Manetho. This has, of course, conferred upon him a degree of credibility. Bunsen and Lepsius have at once accepted him as of full authority, and adopting his number — three thousand five hundred and fifty-five years — for the duration of the dynasties from Menes, the first recorded king, have fixed their respective dates. Bunsen and Lepsius differ, as has been seen, in the date which they affix to the commencement of the Egyptian dynasties, although they adopted the same number from

Manetho. It is because they set the close of that number at different points.

What is to be said in this state of the case? The monuments have brought a new authority into the field. Shall we forsake our old standard, and join ourselves at once to the new? Let us allow Manetho his place as a historian, to be ranked with Herodotus, Livy, and other ancient historians, as, on the whole, a trustworthy authority. Does it close the question, and decide it for us beyond need of further investigation? Certainly not. We have but very little of Manetho, and do not know the grounds upon which he based his representations. He may have been correct in his lists of the kings, but incorrect in assigning the length of their reigns. Indeed, other Egyptologists are decided that his chronology is not to be received, and tell us that their researches have revealed the fact that some of these reigns, which Manetho makes continuously successive, were contemporaneous. For example, during the sway of the second dynasty, there were in different parts of Egypt four other dynasties holding rule at the same time. Both Bunsen and Lepsius admit that some of the dynasties must have been contemporaneous.

By means of this discovery, these other Egyptologists have brought the date of Menes,

the first king, about one thousand years nearer — to two thousand seven hundred and seventeen years before Christ. I refer to the labors of Messrs. Lane and Stuart Poole of England. A strong confirmation of this discovery is found in the fact, according to Mr. Poole, that it harmonizes with all the ancient Egyptian divisions of time, and seems to be verified by the consistency of its component parts. It is said that "he (Poole) harmonizes the lists of Manetho and the tablets (on the monuments), and reads intelligently the records of the first seventeen dynasties, that have hitherto given so much perplexity. His system tallies with itself and with the monuments, and synchronizes with all known data of Egyptian history. His readings are accepted by Sir Gardner Wilkinson (another authority, and earlier in the field than either Bunsen or Lepsius), and his astronomical cycles are confirmed by the calculations of Mr. Airy, the astronomer royal at Greenwich."*

It is evident, then, that the reading of the hieroglyphics, and the discovery of Manetho's correctness in his lists, was not a finality of the chronological question. And it is possible that even now there are discoveries yet to be made which shall throw additional light. But the

* *Egypt, Past and Present*, p. 173.

argument in favor of this view is so strong, as to seem to me quite conclusive.

You will perceive, however, that there is still a considerable discrepancy between this result and the demands of the biblical chronology, as commonly received, which makes the deluge to date but two thousand three hundred and forty-eight years before Christ. The Egyptian dynasties cannot date, of course, beyond the flood. They must commence some time this side. Time must be given for the descendants of Noah to increase, and to have dispersed somewhat. What shall we say here?

I reply, that no real difficulty is presented. *A fixed and definite chronology, without gaps, is not given in the Bible previous to the time of Solomon.* Genealogies are given with ages, and reigns with dates, but not without intervals of unknown duration, though indeed they cannot have been very long. The chronology of our Bibles, the dates of which are placed along the tops of the pages, is an estimated chronology. For the time beyond Solomon, it is the opinion of men. And the received chronology of our common English Bibles is only one estimate, among several, of worthy English scholars. The following paragraph, from the article on chronology in the *Encyclopædia Britannica*, illustrates the real state of the case.

“According to the Samaritan text” (of the Old Testament), it says, “the dispersion took place about four hundred years after the deluge. . . . For this period, the intervals of time between the principal events recorded in Scripture are seldom mentioned in the same circumstantial manner; and the chronologers who computed the succession of years had not only to contend with the discordant readings, but were often obliged to assign arbitrary values to the generations, or other vague terms by which the time is computed. From computations founded on such loose and uncertain data, it would be in vain to look for agreement: accordingly, the results not only present great discrepancies, but appear to be as numerous as the computations. Desvignoles, in the preface to his *Chronology of Sacred History*, asserts that he has collected *upwards of two hundred different calculations*, the shortest of which reckons only three thousand four hundred and eighty-three years between the creation of the world and the commencement of the vulgar era, and the longest six thousand nine hundred and eighty-four. The difference amounts to thirty-five centuries. . . . All that can be gathered from these conflicting statements amounts to this, that *the true epoch of the creation of the world is utterly unknown*. British

chronologers in general prefer the computation of Archbishop Usher, who places the creation of the world, or rather of Adam, four thousand and four years before the vulgar era."

Such is the real state of the case. If any one wishes to test it, let him take his Bible and attempt to make a chronology from the time of the flood to the time of King Solomon.

You hence see two things. First, that the opinion which has become commonly prevalent among Christians, that the chronology indicated by the dates in our English Bibles is the chronology of inspiration, is incorrect. It is only a computed chronology, — that of Archbishop Usher, — and commonly received because heretofore thought by scholars to be supported by the best evidence. Second, that therefore any theory, or opinion, or so-thought result of research, inconsistent with this chronology, is not necessarily an attack upon inspiration.

Bunsen makes the date of the first recorded Egyptian king three thousand six hundred and forty-three years before Christ. Lepsius makes it three thousand eight hundred and ninety-three; thereby pushing back the date of Adam at least thirteen hundred or fifteen hundred years farther than our common chronology makes it. But I do not consider these men in this at all impinging upon the divine authority

and authenticity of the Bible. Chevalier Bunsen was a very reverent Christian man, and would have been the last to weaken, in the smallest degree, the foundations of the Bible as the word of God. My only objection to his view, and the criticism I make upon it, is, that he does not make me see that he has adopted it upon sufficient grounds. I think his reasons too hastily assumed, and shown to be too hastily assumed by the work of Messrs. Lane and Poole. And, *vice versa*, I am made to receive Mr. Poole's result as nearly, if not precisely, the truth—as nearly, perhaps, as we shall ever be able to attain.

The second point of bearing the discoveries in Egypt have upon the biblical record, relates to its character as a narrative of historical events.

1. And the first remark I have to make here is, that *nothing has been found to contradict or throw doubt upon the Scripture record*. Weigh this fact, for it is an important one. It establishes the fact that the Old Testament Scriptures, so far, are not the forgeries of an after time by any one living out of Egypt. It is inconceivable that any one, not being what the writer of the Pentateuch professed himself to be, an Egyptian born, bred at court, and familiar with the country, and with all the

habits and customs of the people, could have written the Five Books of Moses, so called, which describe so much intimately related to Egypt, without falling into inconsistency and contradiction, and having the history of Egypt, when it should be read from the monuments, as it is to-day, reveal the fact. If those books were a forgery, the voices of those so long silent stones would to-day declare it. Moreover, if the discoveries have produced nothing to throw doubt upon the books of Moses, then in that fact they confer high probability upon their record. It was certainly to have been expected, that if the Books of Moses were not a true and faithful account, the reading of the parallel history of Egypt from the monuments would have revealed it. Since, however, they do not, — nor do they assert any thing contradictory to any part of Scripture, — they become so far silent witnesses in favor of Scripture.

But there is much that positively confirms. I hold in my hand a volume by one of those plodding, indefatigable German authors, — a book I must candidly confess I have never continuously read. It is entitled, "Egypt and the Books of Moses." The design of the author, Hengstenberg, professor of theology at Berlin, taking up the results of Egyptian re-

search, is to trace minutely and exhaustively the confirmation which that research contributes to the authenticity and historical verity of the Pentateuch. Its first is a negative part, in which is shown from the monuments the correctness of all the allusions in the Pentateuch to the material used for building in ancient Egypt; the animals employed and known; the use of animal food, which was peculiar; the use of iron; the cultivation of the vine; the winds; and the origin of civilization in Egypt. Then follows a positive part, in which, chapter after chapter, the history of Joseph is confirmed, and the narrative of the exodus, and so on. So full and voluminous is this species of evidence from the monuments.

But as a specimen of this evidence, I will quote rather an example from Dr. Thompson, in the volume already referred to, which was published soon after his return from a tour in Egypt in 1852. He says, "The incidental confirmations of the Bible from the tombs of Egypt are numerous and striking. . . . The Bible alludes to Egypt . . . in terms that indicate in that country a high state of wealth, power, and civilization in the time of Joseph. . . . All these allusions are confirmed by coeval monuments, showing that the writer of the Pentateuch must have been in Egypt, and

that he wrote of it as a familiar country. For example :

Joseph was bought as a slave.

Slaves are depicted on the oldest monuments.

Joseph was exalted to be a steward.

The steward, with his books, is represented on the tombs of every great household.

Joseph used a cup in divining.

Divining with a cup is pictured on the tombs.

Pharaoh dreamed of kine from the river.

The cow and the river are symbols of plenty.

Pharaoh gave Joseph a gold chain upon his neck.

This ornament is seen in the pictures of princes, and gold ornaments of ancient Egyptian manufacture are to be seen in Abbot's Museum.*

Joseph built storehouses for grain.

Pictures of granaries are found in coëval tombs.

Joseph's brethren sat at meat.

In the pictures of feasts in the tombs, the guests are seen sitting instead of reclining.

The Israelites made bricks with straw.

Chopped straw is found in ancient bricks.

The Israelites were pursued with chariots.

Every battle scene abounds in chariots of war." (pp. 204, 5.)

* In New York city.

But I will quote a more striking confirmation of sacred history from Dr. Thompson (p. 184) : "The most direct and remarkable confirmation of the Scriptures," he says, "is found in the monumental history of Sesonchis, or Shishak, which is sculptured on the outer wall of the grand hall of Karnac. We read, in the twelfth chapter of the second book of Chronicles, that 'in the fifth year of King Rehoboam, Shishak, King of Egypt, came up against Jerusalem, because they had transgressed against the Lord, with twelve hundred chariots, and sixty thousand horsemen, and the people were without number that came with him out of Egypt; *and he took the fenced cities which pertained to Judah*, and came to Jerusalem. . . . So Shishak, king of Egypt, came up against Jerusalem, and took away the treasures of the king's house.' Now, among the sculptures on the walls of the temple of Karnac, are some pertaining to the reign of Sheshonk I., which represent the captives taken by Sheshonk in his expedition against Jerusalem, and also 'the names of the captive towns and districts' taken in the same expedition. Among these names Champollion deciphered that of the 'kingdom of Judah,' and also such familiar names as Taanach, Bethshan, Lehi, Megiddo, Hebron, all cities of Palestine; and also the valley of Hin-

nom, and the great place, or Jerusalem. And here — what every one may read — are Jewish captives, their physiognomy as marked in the sculpture as that of any tenant of the Jews' quarter in Frankfort-on-the-Main, or of Chatham Street, in New York, their hands bound together, their ears nailed to the executioner's pillar, their eyes uplifted in agony and terror as the sword is about to descend upon their heads. We need no Hebrew chronicle to tell us that this Egyptian monarch, who here immolates Jewish captives before his divinity, has returned, flushed with victory and spoil, from the land of Judah." (pp. 184, 5.)

The discoveries in Egypt have testified, finally, to the truth of Scripture in another way, viz., in the complete fulfilment of prophecy which they have revealed. In the prophecy of Jeremiah (xlv. 19), which was uttered nearly six hundred years before Christ, it is declared that "Noph shall be waste and desolate, without an inhabitant. Egypt is like a very fair heifer, but destruction cometh; it cometh out of the north." Noph was Memphis, the splendid capital of Lower Egypt. It was to Lower Egypt what Thebes was to Upper Egypt its rival, perhaps, in magnificence of architecture, and more than its rival in magnitude. From the north came,

one after the other, the Persian, the Greek, the Roman, the Saracen, and the Turk; and to-day the traveller, sitting upon the pyramids, and looking down upon its site, "sees only some rude outline of its form in now shapeless masses of stone." Some fragments of two or three mutilated statues now adorn the British Museum, and some of its stones may be detected in the buildings of modern Cairo near by, but all else has been swept away, or covered deep with desert sand. One hundred years ago its site was completely unknown, but God has permitted the hand of modern research to bring to light just enough of its remains to show how sure and unfailing is his word—that heaven and earth shall pass away, but not one jot or one tittle shall pass from his word till all be fulfilled.

In the thirtieth chapter of Ezekiel, a prophecy uttered about five hundred and seventy-five years before Christ, occurs, among other predictions hurled against Egypt, the following: "I will execute judgments in No. I will cut off the multitude of No. I will set fire in Egypt; Sin (Pelusium) shall have great pain, and No shall be rent asunder." No was Thebes—the hundred-gated Thebes of Homer. Its magnificent remains are known to-day as Luxor and El Karnac. First came the Assyrian,

under Nebuchadnezzar, young and brilliant, — the Napoleon of his day. Then the Persian Cambyses, who exerted himself to the utmost to level its massive grandeur with the dust. Lastly, Ptolemy Lathrus, king of Lower Egypt, eighty-two years before Christ, to subdue a revolt, laid his hand so destructively upon it, that, about one hundred years later, the Grecian geographer, Strabo, describes the place as in his time occupied by a few villages of poor, miserable people; and it has continued the same to this day. For nineteen hundred years those broken and time-worn monuments have stood, and for centuries more they will stand, in melancholy testimony of the truth of God's word, and the severity of his judgment against those who utterly forsake him, despising and trampling upon the heaven-high privileges and conditions of prosperity bestowed upon them.

So it is, indeed, in the whole land of the Nile. Dr. Thompson, bidding adieu to Egypt, says, "The first view of the pyramids impressed me with their grandeur, as the monuments of kings; the parting view filled me with awe of their solemn majesty, as monuments of departed empires. The kings that built them prepared a tombstone for Egypt against her burial. Since I first saw them from the Delta, I had traversed, for five hundred

miles, the valley of the Upper Nile, and had found it filled with buried cities; I had seen Thebes a ruin, and now saw the utter desolation of Noph and On. The whole Nile valley is a sepulchre, where Egypt is buried, and these are the monuments that mark the entrance to the tomb."

"The whole Nile valley is a sepulchre, where Egypt is buried!" And that in fulfilment of inspired prophecy! So Egypt, in every part, my friends, is a monument to God's truth! Her long-locked and silent history is only opened by research and discovery, at this late day, to confirm God's word; and for the same end are her ruins dug from the sand and dust. God has preserved this testimony, to bring it forth in this the nineteenth century after Christ, when new attacks from so many quarters have combined to undermine and overthrow his word. Men have undertaken in these days, as though it were a new thought and a conclusive argument, to throw the suspicion of a mythology upon the ancient books of the Bible. They pretend to be able to point out the certain evidences of mythic character; show from what the miracles, as stories, may and must have arisen; what things are impossible as historic truth, and what things are inconsistent with the supposition that the books

of Moses were written when, where, and by whom they profess to have been written. And now, as if to meet precisely this form of infidelity, God in his providence causes the clew to the hitherto mute monuments to be found, and they at once speak. They have no words to utter inconsistent with, or contradictory to, the written record; on the other hand, they have much to say in confirmation; and the sceptics are again put to shame.

COLENZO, AND HIS ASSAULTS UPON THE
PENTATEUCH.

THE later assaults of Rationalism upon Scripture have been directed against its credibility, and therefore against its inspiration. It is not charged that any of the books, either of the Old Testament or of the New, are forgeries. It is not denied, in general, that they are the genuine, honest productions of their authors; that they hold their place honestly and truthfully in the canon of ancient Jewish history and record, and the history and record of the Christian church. The books of Moses, it is admitted, are genuine. So the book of Esther, Nehemiah, and all the books of the Old Testament; and the Gospels, the book of Acts, and the Epistles (excepting the epistle to the Hebrews) of the New Testament, pass now without challenge of fraud or dishonesty. So much have Christian apologetics attained for the Bible. But the point of attack, where the enemies of inspiration now concentrate their charges, hoping to carry it by storm, is the

historic and general credibility of different books. Strauss, De Wette, and latest, Renan, assail the Gospels. With these men, Matthew, Mark, Luke, and John are honest enough, sincere, and conscientious. But were they capable? Were they other than ignorant, illiterate fishermen? Were they able to rise above the peculiar views and superstitions of their nation and their times? Were they not the dupes, innocently and necessarily, of their own unenlightened times, and of an enthusiasm for a truly great and remarkable man? They are honest enough in relating certain events as miracles, but are we to believe that they truly were miracles, or that these honest men were helped to their belief by their imaginations, and by the credulity and superstition of the times? And the result of this "modern criticism" is, that Jesus Christ, whose historical character is not called in question, becomes only a somewhat remarkable man, — a man of remarkable insight and comprehension, of wonderful purity of purpose and great benevolence, — a man at once of singular philosophic spirit and magnificent philanthropy. This is all.

The same criticism, turned to the Old Testament, discovers legend and tradition, and seeks to eliminate them, and leave a residue, if there be one, of pure historic character. In its view,

the narratives of the Creation, of the Fall, the Deluge, the confusion of tongues, are all traditions. Much of the story of Genesis is myth. We are therefore to receive the earlier books of the Old Testament as we receive the early history of other nations, — of Greece, Rome, Egypt, China, — *cum grano salis* — with a very large grain of salt. In fact, we are to receive them, on the whole, as unhistorical.

Thus the gate is opened, and the flood tide is let in to sweep away the foundations, superstructure, and all, of that glorious edifice of truth and love which our God has builded for us in his word.

Of this latter class is the Right Reverend John William Colenso, Bishop of Natal, South Africa, of whom, and his assaults upon the books of Moses, I am to speak to you to-night.

Bishop Colenso received his appointment from the Church of England, and was sent out as missionary bishop to South Africa about ten years ago. It seems that his views had become somewhat unsettled and sceptical before his appointment, and for this reason the appointment was protested against strongly by the evangelical wing of the church. But with regard to the difficulties which he has set forth in his volume, he represents, with great show of candor and simplicity, that they have

occurred in the thorough study which he has given the Old Testament in his work of translating it into the Zulu tongue, and that he has been compelled by them to yield the historical character of the books of Moses, Joshua, and the Chronicles. In his long preface, he tells us a story of his own long-smothered, secret doubts and suspicions, and how he contrived to quiet them from time to time, and especially in taking his oath of office, and continuing conscientiously in his position. Then he tells us of his work of translation, and of the question, "Can this be true?" which his intelligent Zulu helper and interpreter would raise at such points as the story of the flood, and the standing still of the sun and moon at the command of Joshua. With reference to this question of his Zulu helper, he says, "My heart answered, in the words of the prophet, 'Shall a man speak lies in the name of the Lord?' I dared not do so. . . . I dared not, as a servant of the God of truth, urge my brother man to believe that which I did not myself believe, which I knew to be untrue, as a matter-of-fact, historical narrative. I gave him, however, such a reply as satisfied him for the time, without throwing any discredit upon the general veracity of the Bible history."

When he comes directly to the work in hand,

he tells us what he proposes to do, viz., "to show, by means of a number of prominent instances, that the books of the Pentateuch contain, in their own account of the story they profess to relate, such remarkable contradictions, and involve such plain impossibilities, that they cannot be regarded as true narratives of actual, historical matters of fact." A very considerable work, and perhaps it will strike some of you as a little singular that it should remain till this nineteenth century of the Christian era to be done. It certainly is remarkable if there have never been in the church heretofore as thorough, sharp-sighted, and candid scholars as now, and as Bishop Colenso.

But I propose to take up some of these "remarkable contradictions" and "plain impossibilities," and show you what it is that he and other assailants of the historical verity of the Old Testament call contradictions and impossibilities. Perhaps we shall detect where the real difficulty lies.

Beginning in his preface, he makes the statement that he had come to know for certain, on geological grounds, that a universal deluge, such as the Bible speaks of, could not possibly have taken place in the way described. He adds, that he is well aware that some have attempted to show that the deluge was a partial

one, but that such attempts have ever seemed to him to be made in the very teeth of Scripture statements, which are as plain and explicit as words can possibly be.

Now, if he were as thorough and candid a student of the Bible as he pretends to be, he would certainly have discovered and acknowledged that the assertions of a general and universal deluge used in the account, need not be necessarily understood, as we should understand such assertions, if they were made now. He would have seen and acknowledged that such assertions, as we have seen in the lecture upon the subject of the deluge, were used commonly, in both the Old and New Testament Scriptures, with reference to *the whole world as then known*. As a fair and candid critic, he would have admitted that we need only understand the account as asserting the overwhelming of that portion of the world which was then inhabited, and the destruction of all its inhabitants, save the family of one man. And if he had been as well read in modern research as he might have been, he would have found the traces of such a catastrophe among all nations which make it certainly an historical event, and the Biblical narrative the best and only fitting account of that event. Moreover, if he had been as well read in geology as he professes, he

would not have made the childish statement that nothing is really gained by supposing the deluge to have been partial. "For," he says, "as waters must find their own level on the earth's surface, without a special miracle, of which the Bible says nothing, a flood, which should begin with covering the top of Ararat, or a much lower mountain, must necessarily become universal." Geology teaches us that elevations and depressions of different portions of the earth's crust are constantly going on, and therefore that if it pleased the Creator to overwhelm any particular portion with water, large or small, he could do so without varying the operation of common laws. The truth is, as we have already seen, that both Biblical criticism and modern science only substantiate the Noachian deluge as an historical fact.

In his preface, also, he makes some remarks upon the sun and moon's standing still at the command of Joshua, which I will refer to again.

The first difficulty which the bishop formally brings forward relates to the two grandsons of Judah, Hezron and Hamul, who are named among those who went down with Jacob into Egypt. "It appears to me certain," he says, "that the writer of the account means to say that Hezron and Hamul were born in the land

of Canaan," and then enters into a labored endeavor to show that there was not time enough for this. Judah, he says, was only forty-two years old when he went with Jacob into Egypt. But the story of these grandsons, which is peculiar, is, that Judah, having become old enough, marries, and has three sons. The eldest of these grows up, is married, and dies. The second comes to maturity, marries his brother's widow, and also dies. The third grows up, and declines to marry the remaining widow. She then deceives Judah, and in due time bears him twin sons. It is one of these twin sons who grows to maturity and becomes the father of the two grandsons in question, all of which, Colenso says, according to the account, must have taken place in the impossible period of forty-two years. It were not to be wondered at if a Sabbath school child should be puzzled over this, but that a learned Christian minister should be, and he a bishop of the Church of England, is marvellous. The writer is giving an account of the family of Jacob, when he descended into Egypt. He makes its number sixty-six, evidently, of necessity indeed, including Hezron and Hamul. But in declaring the number, he says, "All the souls that came with Jacob into Egypt, *which came out of his loins*, besides Jacob's sons' wives, all

the souls were threescore and six." From this it is evident that the writer possibly meant to include all the family, though some of them may have been yet unborn. It was certainly as proper to speak of Hezron and Hamul thus, as for it to be said that Levi paid tithes to Melchisedek, while yet being in the loins of Abraham, Abraham being the great grandfather of Levi. But the writer immediately adds: "And the sons of Joseph, which were born to him in Egypt, were two souls; all the souls of the house of Jacob, which came into Egypt, were *threescore and ten*,"—whence it is evident that the writer means to be understood to be speaking of the number of the primitive family of Jacob in Egypt, or else he contradicts himself on the spot. And no fair mind would undertake to interpret him otherwise than he evidently meant. But it is possible that these grandsons were born in Canaan after all. Colenso says that Judah was but forty-two years old at the descent into Egypt. If any one will take his Bible, and carefully make examination, he will see that it is not certain. He was at least forty-two years old; he may have been much older, and in all probability was. Jacob was about forty when he went to Padan-aram,* forty-seven when he married

* Gen. xxvi. 34; xxvii. 46; xxviii. 1, 2.

Leah, fifty-three, probably, when Judah was born, and one hundred and thirty when he went to Egypt. Judah, therefore, may have been, and very probably was, seventy-seven years old; which gives ample time for all the events narrated in the account. Why Colenso should roundly state that Judah was but forty-two at the descent into Egypt, I cannot see. If he had examined the case carefully, he would certainly have seen that he might have been, and very probably was, nearly twice that age. It looks as if he deliberately disregarded the truth, and was determined to make out a case.

His next point of assault, or rather his next puzzle, — for he seems more like a schoolboy finding puzzles in the books of Moses, which he has not wit nor experience enough to solve, than a man finding serious difficulties, — is the size of the court of the tabernacle, compared with the number of the congregation. He cites Lev. viii. 1-4, "And Jehovah spake unto Moses, saying, . . . Gather thou all the congregation together unto the door of the tabernacle of the congregation. And Moses did as Jehovah commanded him. And the assembly was gathered together unto the door of the tabernacle of the congregation." He then says, "It appears to be certain that by

. . . 'the assembly,' 'the whole assembly,' 'all the congregation,' is meant the whole body of the people, — at all events, the adult males in the prime of life among them." These were six hundred and three thousand five hundred and fifty. He is not content to have this body gather at or before the door of the tabernacle, as the command says, but is determined to have them within the court; for what reason he alone can tell, unless to create the puzzle, and exercise himself a little in the simple rules of arithmetic. He then proceeds gravely to state the dimensions of the court, — about one hundred and eighty feet by ninety, — and point out the absurdity of requiring or supposing six hundred thousand men to be gathered there. Of course, it would be very absurd; but no more so than the difficulty which this right reverend bishop makes of it. They were required, in the first place, only to gather *unto* the door of the tabernacle. And if by the whole congregation, we must understand all the adult males, the whole mass of six hundred thousand, allowing standing room of eighteen inches by twenty-four for each man, — ample enough, any one will admit, for men in a crowd, — would occupy an area of forty-two acres only, an area of six acres front and seven acres deep. It is therefore by no means ab-

surd or improbable that the whole congregation should be called together at the door of the tabernacle on any important occasion like that to which the passage cited refers. Aaron and his sons were to be solemnly consecrated and installed as priests of the service of the Lord. It was proper and important that it should be done publicly. And though all the congregation could not see or hear, yet it would be done in their presence, their elders and chiefs seeing, and all of them beholding the pillar of cloud resting upon the tabernacle, and knowing that what was then being done was done by the command, and by the present solemn sanction, of Jehovah. And thus, though all could not personally see, yet they would know, and would be made true witnesses of, the event. We can see, too, how impressive it would be, when this great multitude, at divine command, should file out of its different encampments, and assemble together into one great congregation, before the tabernacle of the congregation, whereon always rested the cloud of divine presence, for religious or other purposes. And it would be of immense value in making sensible and real to all the people their national character, their institutions and ordinances, and their relation to Jehovah, as their great leader and governor.

But it is not certain that the term "congregation" always meant the great body of the people. It did primarily, no one questions. But generally, the "congregation," in this sense, was represented by "the elders and princes of Israel;" and this body, when it met, being representative of the great congregation, was called also "the congregation." In the first chapter of Numbers will be found a list of the representatives forming this body. In the sixteenth verse it is said, "These were the renowned of the congregation," or, more accurately, "the called ones of the congregation," "those called to convention."* It is therefore not always necessary to suppose that when the congregation was called together, or Moses or Joshua is represented as addressing them, or reading the law, it was the whole body of the people. And this disposes of the third puzzle of Colenso, which is, how Moses or Joshua could address all Israel, and the congregation, and be heard by them. No reader of the Bible, with ordinary understanding, would suppose they pretended to.

Colenso finds another and an amusing difficulty in the extent of the camp, and the duties

* Cf. Bush in loc. ; also, Horne, Introduction, vol. ii, sect. "Government of Moses," and Smith's Dict. of the Bible, art. "Congregation."

of the priests. In the case of the sin offering for the priest, it was required that the whole body of the victim, except the fat of the inwards and some other small portions, should be carried out of the camp and burned. Citing this requirement, our problem-seeker goes into a toilsome calculation of the size of the camp, to show that the refuse of the sacrifices must be carried at least a mile and a half, probably much farther. Then he says, "Thus the refuse of these sacrifices would have to be carried by *the priest himself* (Aaron, Eleazar, or Ithamar — there were no others) a distance of three quarters of a mile." This is a great difficulty in the eyes of our confused bishop. "But how huge does this difficulty become, if, instead of taking the excessively cramped area of one thousand six hundred and fifty-two acres — less than three square miles — for such a camp as this, we take the more reasonable allowance of Scott, who says, 'this encampment is computed to have formed a movable city of *twelve miles square*,' that is, about the size of London. . . . In that case, the offal of these sacrifices would have had to be carried *by Aaron himself, or one of his sons, a distance of six miles*." If the matter were not so serious, this might be called a capital joke. It looks certainly as if the bishop had undertaken to impose upon his

readers. Otherwise he is certainly befooled himself. For, in the first place, let the camp have been of the largest dimensions, it is by no means certain that the tabernacle was not so placed but that it was in convenient vicinity to an appropriate spot without the camp. Secondly, it is unfounded assumption to say that Aaron and his two sons were the only priests. Thirdly, he leaves out of sight the fact that the whole tribe of Levites had been given to the priests as assistants,* and that we have numerous examples † of their assistance at the sacrifices. And fourthly, he sinks his Hebrew scholarship beyond recovery, in insisting that the words, "shall he carry forth," mean that the priest himself shall carry forth. For if the Hebrew word is not an example of an impersonal verb, equivalent to "one shall carry forth," "they shall carry forth," or "it shall be carried forth," as some Hebrew scholars assert, it is at least in that conjugation of the Hebrew verb (Hiphil) which is causative in its signification, and therefore, translated literally, would be, "he shall cause to be carried forth." It is certain, therefore, that the priests themselves did not have to perform personally this vast labor, and that the passage does not represent that they did, and that the

* Num. iii. † 2 Chron. xxix. 34; xxx. 16, 17; xxxv. 10, 11.

difficulty is created wholly by the wilfulness or stupidity of this too famous assailant.

Another difficulty is found in the promise made to the Israelites,* that all the inhabitants of their promised land should either be destroyed or driven out; but not in one year, it is said, "lest the land become desolate, and the beast of the field multiply against thee. By little and little I will drive them out from before thee, until thou be increased and inherit the land." Having quoted this passage, he proceeds to show that the whole land, divided among the tribes in the time of Joshua, including the countries beyond the Jordan, was only about eleven thousand square miles in extent, or seven million acres. This was occupied by the Israelites, numbering at least two million, to say nothing about the* Canaanites that remained in the land. He compares this with the three English counties of Norfolk, Suffolk, and Essex, and finds it bearing about the same density of population. "And surely," he says, "it cannot be said that these three eastern counties, with their flourishing towns . . . and innumerable villages, are in any danger of lying desolate, with the beasts of the field multiplying against the human inhabitants." Hence he argues that the reason given is a fiction —

* Ex. xxiii. 27-30.

unhistorical. To strengthen his case, he makes a comparison with Natal, his own missionary field in South Africa, where, he says, with an area of eighteen thousand square miles, a population of one hundred and fifty thousand, all told, are perfectly well able to maintain themselves against the beasts of the field. The lions, elephants, rhinoceroses, and hippopotami, which once abounded in the country, have long ago disappeared. Leopards, wild boars, hyenas, and jackals are killed occasionally in the bush, but many a white man may have lived for years in the colony, as he has done, and travelled about in all parts of it, without seeing or hearing one. This, again, is really amusing. Bishop Colenso assumes to be a critical student of the Bible. He is making a translation from the original Hebrew into the Zulu language. In making the translation, he finds in this promise a difficulty, and yet never finds its solution. I will make no pretensions to being a very critical student of the Bible, — not such a one, certainly, as a translator ought to be, — and yet several years ago, in the ordinary studies of a pastor, I met, not only this difficulty, but almost as soon, its solution. The solution lies in this, which it is a mystery that Bishop Colenso failed to learn, viz., that the land which was divided among the tribes by

Joshua, was not the same with that which was originally promised; that is, it was only a part of it, and that a small part. The territory promised to the Israelites was all the region between the Mediterranean Sea and the Euphrates, having for its northern border a line commencing at the Mediterranean at about thirty-five degrees north latitude,* and running east, with more or less regularity, till it reached the Euphrates. The Euphrates was the eastern border. The Mediterranean was the western. The southern commenced at the River Nile, in Egypt, at the mouth of the eastern branch evidently, and swept eastward, touching the southern point of the Dead Sea, till it reached the Euphrates.†

This was a territory, as any one may see by glancing at a map, from twelve to twenty times as large as that divided by Joshua at first. The truth is, that the Israelites never possessed themselves of all their promised inheritance, by their own fault. The nearest they ever came to it was in the time of Solomon. The knowledge of this simple fact, which every ordinary student of the Old Testament ought to know, is a sufficient answer to the difficulty here raised.

* Num. xxxiv. 8-10; Ezek. xlvii. 15-17. Cf. J. L. Porter's "Five Years in Damascus," Vol. II., p. 354.

† Gen. xv. 18; Josh. i. 4.

I am afraid that my audience are ready to say that they have had enough of Colenso's difficulties, and that their patience is well-nigh gone; but at the risk of exhausting it, I must present one more, because it is not only a difficulty of Colenso's, but one which attentive readers of the Bible very often feel, and do not readily solve for themselves. It is the number of the Israelites at the time of the exodus. The adult males alone, capable of bearing arms, are stated to have been six hundred thousand and a little more. At the lowest calculation, this would make a total number of men, women, and children, of two millions, — more probably, two and a half millions. At this figure the number is usually set. The question now is, how fifty-one persons — the number of males in Jacob's family in the first generation — could increase to this number in the short period of two hundred and fifteen years, the period of the sojourn in Egypt. Moreover, the promise was made that they should go forth from Egypt in the fourth generation; and Moses was in the fourth generation from Jacob, and Eleazar in the fifth. How could this number have been attained in even the fifth generation? The twelve sons of Jacob had in all fifty-three sons, an average of four and one half each. Colenso, taking this

number as the average rate of increase, can make but about five thousand of the generation of Eleazar; and adding together the males of all the generations that would then be living, he cannot make them exceed twenty-eight thousand five hundred. How are we to solve this difficulty? In the first place, we are to remember, what Colenso leaves out of sight altogether, that not only do a people in a state of servitude multiply faster than in any other condition, but *it was a special promise of God to Jacob* that his seed should be multiplied and become as the sand of the sea. In particular, when Jacob was on his way to Egypt, God said, "Fear not to go down into Egypt; for I will *there* make of thee a great nation." We are led, then, to expect to see the hand of God in the matter. We are led to expect a remarkable increase, and are warranted in assuming a high ratio of increase—one as high as the highest. Moreover, it is expressly stated that "the children of Israel were fruitful, and increased abundantly, and multiplied, and waxed exceeding mighty; and the land was filled with them."* Then the Egyptians afflicted them, expressly to repress their increase. "But the more they afflicted them, the more they multiplied and grew." † We are to remember also,

* Exod. i. 7.

† Exod. i. 12.

that though they did go out in the fourth generation, that is, before the fourth generation had passed away, yet at the same time the fifth, sixth, seventh, eighth, and even, in some cases, the ninth and tenth generations, had come on to the stage. We are told in the last chapter of Genesis, that Joseph, living till he was one hundred and ten, saw Ephraim's children of the third generation, that is, the fourth generation from himself; four generations, therefore, since he was married after thirty, came upon the stage of life in eighty years. In the remaining one hundred and forty-four of the two hundred and fifteen of the sojourn (he lived seventy-one years after Jacob's descent) after his death, there might well be, in some cases, the children of the sixth or seventh generation beyond this. And in fact, we find an instance in Joshua, who, while Eleazar, the priest, his contemporary, was of the fifth generation, and Bezaleel of the seventh, was himself of the tenth* from Jacob. Now, commencing with the fifty-one males of the second generation, and allowing eight to be the ratio of increase, — by no means high, in view of what we have seen, — the number of the eighth generation alone would be thirteen million three hundred and sixty-nine thousand

* Num. vii. 23, 27.

three hundred and forty-four. Allowing it to be but five, the number of the ninth generation would be four million four hundred and six thousand two hundred and seventy-five. Therefore, making allowances for the fact that all of the eighth or ninth generation were not yet born, and for the proportion of deaths, and adding in the proportions of the fourth, fifth, sixth, and seventh generations living, there can be no difficulty at all in accepting the fact that the Israelites must have numbered from two to three millions of people at the time of their exodus.

Such are the assaults of this famous critic upon the books of Moses. As the examples given have been answered, so may all the cases he has adduced, — a work which patient investigation could readily do. I need not ask if he has succeeded in his effort to show that the books of Moses are unhistorical. He has not impeached them in their historical character in the least. These are indeed difficulties at first sight; they would be very serious difficulties to one who had not the means of overcoming them; but they are only difficulties, as mathematical problems are difficulties; they have a solution, if one is only acute and studious enough to attain it. Or, some of them may be difficulties like facts of other history; they

have lost their known clew; we have not all the data, and have to make them good with suppositions. But every one grants that if in such case a reasonable supposition makes all difficulty disappear, then such difficulty is not insurmountable: it is not valid objection: it is not to be taken into the account, so long as there are good and substantial reasons for the opposite. There are good and substantial reasons in favor of, not only the historic character, but the divine inspiration, of the books of Moses. Can, then, any difficulty, which is merely a puzzle to the understanding, even suppose that it should never be able to solve it, be an equal counterpoise? There are problems in Egyptian, Grecian, Roman history. Do they render the narratives in which they occur unhistorical? Not at all. They still remain only so many problems. Light may come. And so, indeed, with new light, new difficulties may arise. But we have seen thus far that new difficulties have, in turn, themselves yielded to patient thought, study, and time.

But let us remark some of the characteristics of Colenso; for they serve to illustrate those of assailants of the Bible generally.

1. His want of acumen, — or, perhaps, I should say, his possession of a peculiar acumen, which makes him sharp enough to search

out and discover difficulties, but dull enough in finding the rational and common sense explanation of them. In his study with reference to the family of Judah, how he could have failed to have discovered what is at least a possible solution of the difficulty, one can hardly see. Or in the matter of driving out the inhabitants of the promised land, how he could have failed to call to mind what were the boundaries of the land, as originally promised. Sometimes it seems to be common sense which he lacks. For instance, in the matter of the standing still of the sun and moon at the command of Joshua, which has been reserved for notice at this place. With reference to the supposition, which a writer had put forward only as a *conceivable* thing, and therefore sufficient to relieve the event of impossibility, that the earth, by the omnipotence of its Creator, could have been made to rest upon its axis if he willed it, he says: "Not to speak of the fact that if the earth's motion were suddenly stopped, a man's *feet* would be arrested, while his *body* was moving at the rate (on the equator) of one thousand miles an hour (or rather, one thousand miles a *minute*, since not only must the earth's diurnal rotation on its axis be stopped, but its annual motion also through space), so that every human being and animal

would be dashed to pieces in a moment, and a mighty deluge overwhelm the earth, unless all this were prevented by a profusion of miraculous interferences,—our point is at once fatal to the above solution.” His writer, he says, quotes only the words, “So the *sun* stood still in the midst of heaven . . .,” and dismisses the whole subject in a short note, and never even mentions the *moon*. But the Bible says, “*The sun stood still, and the moon stayed;*” and the arresting of the earth’s motion, while it might cause the appearance of the sun “standing still,” *would not account for the moon’s “staying”!* It would be interesting to know what he thinks would be the appearance of the moon, if not of staying, in this case. And certainly, if Almighty Power, pervading all space, and therefore the mass of the globe, and all objects on its surface, should stop the globe from revolving for a time, it could preserve in safety all those objects; and it would be no stretch of the miracle at all. And this remark is sufficient answer to the whole of his objection.

2. Ignorance of some of the first laws of interpretation. It is certainly one of the first, as it is one of the most obvious, of these laws, to take language in the sense in which it was used by the writer or speaker. If we should

find reason for believing that the writer of the narrative of the Creation employed the word "day" in a sense which later ages had lost, we certainly should be bound to receive it in that sense. Or if we find that it was customary to speak of all the known world, or all the inhabited world, or all the Roman world, as all the world absolutely, we should be bound to understand it so. So when any idiom is used, as "he says," "he did," "he went," for the impersonal "they say," "it was done," "one went," it is improper to adhere persistently to the literal translation, and say that that is what it means. These things Colenso, and all who wish to mistranslate the Bible, and force it to mean what it does not mean, constantly do.

3. Misrepresentation, if not a misunderstanding, of the ordinary view of inspiration. He seems once to have felt obliged to maintain "every word as the sacred utterance of the Spirit of God," and therefore the language in every part to be received as true and infallible as it is. It is a view of inspiration which sets and fixes each individual word in its own meaning, and will not allow it a sense derived from idiomatic use. Thus, when it is said* that the Lord brought the fear of David upon all nations, Colenso's view of inspiration binds

* 1 Chron. xiv. 17.

him to understand this as asserting "all nations" literally and absolutely, as, for instance, the then inhabitants of this western continent. But this is a travesty upon the true and orthodox doctrine of inspiration, which is, that while some parts of Scripture are the immediate and direct utterance of the Holy Spirit, other parts are written under the superintendence of the Holy Spirit, allowing the writers, like Moses, Ezra, David, and Isaiah, to use their native tongue, in their own style, freely, with all its idioms and peculiar forms of expression; and other parts still are merely the truthful record of events and lives, adopted by the authorization of the Holy Spirit into the sacred canon, as filling an important place in sacred history, and adapted in the best manner — being histories, as they are, of individuals and a people directly under the divine government — to reveal and instruct in the will and character of God. It is certainly a curious view of inspiration which makes us say, when the idiom of the Hebrew language employs, "he says," "he carries," for an impersonal, "it is said," "it is carried," that the Holy Spirit means, whatever the writers meant, "he says," "he carries," &c., and we must not read it in any other way.

All the Bible is truly inspired. I hold most confidently to that. And I hold most confi-

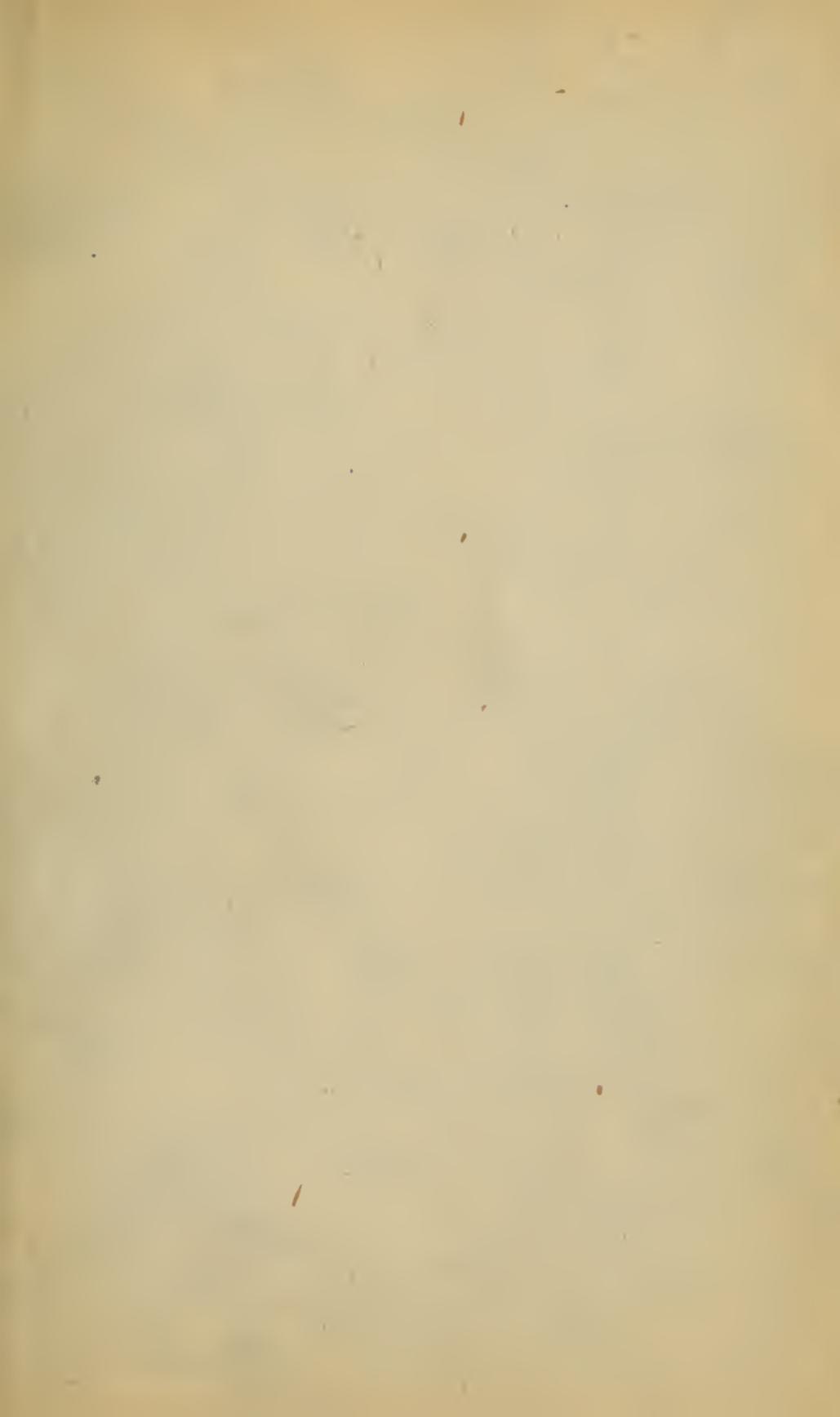
dently that there is one true interpretation of the Bible, in accordance with a true science and with certain laws of interpretation. And when we have made this interpretation, we have arrived at truth, whether it be historic, scientific, or religious — infallible truth. The inspiration of the Bible is not merely that indefinite, transcendental thing, a certain unseen sign of God's Spirit, speaking in the Bible, of which each individual heart alone can be the judge. If our heavenly Father and righteous God has given us at all a declaration of his will and of divine truth for our enlightenment in this pilgrimage of darkness, we may be sure it is no uncertain-sounding trumpet like this. It is meant to convey plain truths — truths of the greatest import — in the plainest way, to every child of man. It is directed and adapted as a "common sense" communication to the common sense of men, and the common sense of men ought not to fail in its interpretation.

Bishop Colenso is a representative of more than one class of assailants of the Bible. Some of his assaults are founded upon an amazing dulness and stupidity; others upon an ignorance or an ignoring of the first laws of Biblical interpretation; others from a confused or beclouded state of mind — he has not clearly settled for himself first principles, and is not

able to cut his way clearly through the meshes of difficulty and confusion into which he has thrown himself; others from a bias against the truth, and an unwillingness to accept its conclusions; and others from a wilful perversity — he will not see the truth, though it stand revealed before his eyes. And the thoroughness with which the church has met and swept away all these objections, in time past, should make us feel assured, my friends, with reference to the future. As the Bible has in the past triumphed over all its assailants — and some of them have been mighty — so we may rest assured it will in all time to come. It is the truth of God. In all its parts it is authenticated by him, and serves to reveal most clearly and sufficiently his character and will to mankind. And as a body of divine truth should, it bears the seal and impress in itself — in the righteousness, holiness, truth, love, and benevolence of its truths and precepts, and in their tendency to counteract evil in man, and make him just, true, and good — of its divine origin. No habitual reader of the Bible will ever deny but that it is the word of God — an oracle from heaven.

And I hope, my hearers, that one effect with you from the series of discourses, of which the present is the conclusion, has been an increased

assurance that the Bible is proof against the assaults of science and criticism; on the other hand, that science and criticism will only serve to show the strength and basis of the Bible as truth, as certainly thus far, in the work they have really accomplished, they have only done. As Geology, when her voice has come to be heard with some distinctness, has rendered her testimony that the beginning of the record is not only true, but must be divinely inspired, so will historical research and criticism give their testimony to the historical verity, both of the Books of Moses and the Gospels of the New Testament.



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