cloud and falls in floods before us; his life and love in the love and life that warm our hearts. Direct, quick, unwa­vering, must be the flight of the soul heavenward. Unless we accept it fearlessly we cannot beat this spiritual atmosphere or rise in it.

ARTICLE VI.

THE CHRONOLOGY OF BUNSEN.

BY REV. E. BURGESS, LATE MISSIONARY OF 'A. B. C. F. M. IN INDIA.

When we read the account of the last hours of Bunsen in the interesting obituary notice of him which was published in our journals soon after his death, we should have entertained from it a far higher idea of his Christian character than we did, had we not previously read his "Egypt's Place in Universal History." But having read that work we were puzz­led to understand how one who treats the holy scriptures as he does, should even appear to be an evangelical Christian. It was altogether contrary to our observation, and we thought contrary to the observation and experience of the world, that one who adopts principles of interpretation such as Chevalier Bunsen does in the work above alluded to, should give evidence of such a heartfelt reception of the Saviour as is implied in the language of his obituary notice. And we could remove the difficulty only by the supposition that that language, as coming from his lips, had less than its usual meaning, or his mind had undergone a transforming change between the time of his last great literary work going from his hands and his death. Perhaps either supposition is possible. The latter is more agreeable to entertain, though we have seen no evidence of its being fact. Bunsen professes to regard the holy scriptures as of divine authority, and to treat them as
such; yet no one of their bitterest enemies, it seems to us has done more to undermine that authority.  

"Egypt's Place in Universal History" is a work of great pretensions; and we confess ourselves inclined to accord to its author greatness of conception, and great industry and labor in execution; but we cannot say great judgment in selecting them together, the whole bearing the stamp of the German mind. We think an English mind of equal ability, and with similar opportunities for research and collecting materials, would have done better, even had its views and principles coincided with those of the German author. Horace Hayman Wilson, the late eminent Sanscrit scholar of Oxford, had his studies been turned towards Egypt as they had been towards India, with the opportunities of Bunsen, would, we think, have produced a more valuable work. There is a great deal of lumbering matter in Bunsen's work. But perhaps this feature is not to be too closely

1 We find we are not alone in this dilemma respecting the religious character of Bunsen. Since writing the above we have met with the following from the pen of the celebrated writer, the Rev. James McCosh, LL.D.

"The question will be asked, How was it possible for one entertaining such theoretical views, to love his God and Saviour, as Bunsen seemed to love them, supremely? Having a considerable acquaintance with the Hegelian philosophy, and having only a short time before listened to the lectures of some of the most devoted disciples of that school, I think I can understand the inconsistency, though I would never think of defending it. Bunsen had been trained in the first quarter of this century when Schelling and Hegel (of whom he always spoke with profound admiration), ruled in the universities, and he had so lost himself in ideal distinctions and nomenclature, that his words were not to be interpreted as if the same expressions had been used by another man" (The Supernatural in Relation to the Natural, Ap. p. 366).

This is doubtless the true explanation, though we are not sure that we arrive at it by the same conclusion with the learned author who advanced it. For, in the sentence immediately preceding, he thus expresses himself: "I am able to say, what I believe I can say of no other with whom I had so much intercourse, that we never conversed during these five days for ten minutes at a time, without his returning, however far he might be off, to his Bible and his Saviour the objects that were evidently dearest to him. Some of my British readers will be astonished when I have to add that one evening he told me that he was not at all sure about allowing that God is a being, and he certainly could not be a Christian? Yet a
criticized. We have often found literary lumber-houses very valuable; so much so that we will put up with an author who shows a little vanity in collecting lumber.

We have said the conception of Bunsen's work is a vast one. "Egypt's Place in Universal History!" Egypt! that land of pyramids—whose kings are enumerated in history under thirty distinct dynasties; whose monuments antedate the oldest historic records; whose language has consumed the lives of some of the greatest scholars; the source whence the wisest of the ancient Greeks drew their wisdom; whose empire had extended from the Nile to the Indus, before Greece and Rome had even a name! And can Egypt's place in history be determined and described? Bunsen has attempted it. He has placed himself on her ancient monuments and surveyed the immense periods of her historic existence, and, as he thinks, ascertained her "place" in the history of man.

To his own great industry and learning he has joined that of all the learned Egyptologers from Champollion to Lepsius; in short what human learning and industry could do to fix Egypt's place in history, it would seem has been done by Bunsen in these five volumes. He maintains that her language was in the process of formation as early as 14,000 B.C. At that time it had reached the stage of "complete parts of speech beyond the distinction between full words (nouns, verbs, and adjectives) and formatives." At 13,000 B.C. it had "declensions and conjugations, with affixes, suffixes, and endings." At 12,000 B.C. was the "commencement of symbolical hieroglyphics, i.e. picture-writing"; and "primitive syllabifications," with some other improvements, at 11,000 B.C. Then at 10,000 B.C., or thereabout, happened Noah's flood (see Synopsis of the Four Ages of the World, below).

It is not our design to review Bunsen's work as a whole. It is too deep in monumental lore for us to attempt such a task. We only design to set before the readers of the Bibliotheca Sacra his system of Chronology, with a few friendly
criticisms thereon. It will be seen from the above statements that he sets aside entirely the commonly received opinions respecting the creation of man, as derived from the Hebrew sacred scriptures. While he professes great reverence for those scriptures, by a curious principle of philosophical interpretation, he deduces conclusions that destroy their authenticity and value. If plain language can be made to mean what Bunsen makes of it, it can be made to mean anything or nothing, to suit the interpreter's purpose. The Christian geologist can admit, without violence to the principles of interpretation or controverting scripture, that the earth has existed for millions of years, but he cannot in the same manner admit that man has existed on the earth more than six or seven thousand years. And just here is the point of attack on the Bible where infidels are making their most strenuous efforts. During the past few years there have been numerous alleged discoveries of "flint implements, the works of human art," found in such geological formations as prove their existence before the Mosaic date of man's creation on any received system of chronology.

Again, the bones of man are found in connection with those of "extinct species of animals," and in "undisturbed geological formations," where they must have been deposited before the date assigned by Moses to man's creation. And

1 Yet still, should conclusive evidence compel us to admit that man has existed on the earth for a longer period than the Mosaic account allows, even according to the Septuagint, it would scarcely affect the general authority and correctness of the Bible. The data on which rests the epoch of man's creation in our received chronology are stated in a comparatively brief space which would be occupied by a few lines in an ordinary volume (Gen. v. 3-32 and xi. 10-13). The data consist of a genealogical record of the patriarchs, from Adam to Abraham, the essential part consisting in numbers. Now should irrefragable evidence—as yet such evidence has not been produced—compel us to admit that this record as we now have it, does not give the true time since the creation of man, the admission does not necessarily affect the divine authenticity of the Bible. The passage may have been corrupted, something may have been left out which was in the original record.

2 It is sufficient to refer the reader to Sir Charles Lyell's recent work on the "Antiquity of Man" for these general statements.
now Bunsen, the great German scholar and antiquarian, and a Christian, comes out with an immense array of learning to show that man existed on the earth 20,000 (perhaps 40,000) years before Christ. It is with Bunsen's system, that of chronology, that we are now concerned. We shall give that system, and the principal facts and reasons on which it rests, as near as we can, in the author's own words. In general, we think, these facts and reasons need only to be stated in order to be discarded as insufficient for the basis of such superstructure.

At the risk of being somewhat tedious to a portion of our readers, we present in full the first part of our author's synopsis of his system.

"SYNOPSIS OF THE FOUR AGES OF THE WORLD.

"FIRST AGE OF THE WORLD.

"Ancient Antediluvian History, from the Creation to the Flood,—Primitive Formation of Language and the Beginning of the Formation of Mythology.

The Historical Primitive World (I. II. III.). (1-10,000 Year of Man; 20,000-10,000 B.C.)

FIRST PERIOD (I.). — Formation and Deposit of Sinism (20,000-15,000 B.C.).

Primitive language, spoken with rising or falling cadence — elucidated by gesture — accompanied by pure pictorial writing; every syllable a word, every word a full substantive, one representable by a picture.

Deposit of this language in Northern China (Shensi) in the country of the source of the Houngho-Sinism. The earliest polarization of religious consciousness: Kosmos or Universe, and the Soul of Personality. Objective worship, the firmament; subjective worship, the soul of parents, or the manifestation of divine in the family.

SECOND PERIOD OF THE WORLD (II.).—Formation and Deposit of Primitive Turanism: The eastern polarization of Sinism (15,000-14,000 B.C.).

Pure agglutinative language: formation of polysyllabic words by means of unity of accent (word accent).

Origin of particles, words no longer substantive and full, but denoting the mutual relation of persons and things; finally of complete parts of speech.

Deposit of this stage of formation in Thibet (Botya language).

Germ of mythology in substantiation of inanimate things and of properties.
Third Period (III.). — Formation and Deposit of Khamsism and the Flood: Western polarization of Sinim (14,000–11,000 B.C.).

Formation of stems into roots producing derivative words: complete parts of speech beyond the distinction between full words (nouns, verbs, and adjectives) and formative words, 14,000.

Declensions and conjugations with affixes and endings; stage of the Egyptian, 18,000.

Commencement of symbolical Hieroglyphics, i.e. picture-writing; but without the introduction of the phonetic element or designation of sound, 12,000.

Deposit of this language in Egypt, owing to the earliest immigration of West-Asiatic primitive Semites. Invention of, or advancement in, hieroglyphic signs: primitive syllabarium, 11,000.

The Flood.—Convulsion in Northern Asia. Emigration of the Arians out of the country of the sources of the Oxus (Gihon) and Jaxartes, and of the Semites out of the country of the sources of the Euphrates and Tigris, 11,000–10,000.

Second Age of the World.

Ancient Postdiluvian History — From the Emigration after the Flood down to Abraham in Mesopotamia. Formation of the Historical Tribes and Empires of Asia, 10,000–2878 B.C.”

We will not occupy space with the details of this “age.” Suffice it to say the author exhibits the same wonderful knowledge in regard to the history of the “Egyptian deposit” from 10,000 down to 4,000 B.C., as in reference to the preceding age. He gives definite dates for numerous events in the civil and religious history, e.g.

“ The Formation of Osirism, 10,000 B.C.
Close of the Republican period, 9,086 B.C.
Duration of the sacerdotal kings, according to Manetho, 1855 years: end of the sacerdotal kings, 7,281 B.C.
Beginning of hereditary kings in lower Egypt, 5,413 B.C.
Duration of them according to Manetho, 1790 years: end 3,624 B.C.
Perfect formative language, 4,000 B.C.
Menes, the first king of the first Dynasty, 3,623 B.C.
Abraham, 2,878 B.C.
The Exodus, 1,320 B.C.”

It is safe to say in general, that such a mass of pure assumption as our author has here put forth is nowhere else to be found in any professedly historical or chronological

work. He frequently says, "according to Manetho," while Manetho affords not the least support for the declaration put forth on his authority.

The following sentences are valuable as showing our author's manner of assuming his premises and drawing his conclusions, as well as exhibiting a cardinal principle of his work:

"But if we find almost four thousand years before our era, a mighty empire possessing organic members of a very ancient type, a peculiar written character and national art and science, we must admit that it required thousands of years to bring them to maturity in the valley of the Nile. If again its language be shown to be a deposit of Asiatic, and by no means the oldest formation, it will be admitted upon reflection to be a sober conclusion that we require some 20,000 years to explain the beginnings of the development of man, which have been only once violently interrupted in its primeval birthplace" (Vol. iv. p. 21).

"The question as to the place of Egypt in historical chronology is thus at once changed to that of its place in the whole development of man. We pass out of the domains of chronology and history, into that of pure philosophy" (Vol. iv. p. 22).

We have here a statement of a fundamental principle of the author; a principle by which he is guided, and which underlies his whole work. It is the founding of a system of chronology on the principles of philosophy. We are fond of philosophy when it is sound and in its place; and we do not assert that it has no connection with chronology. When the materials for a strict historical chronology do not exist, we have no objections to philosophy doing her utmost to elucidate and present probable truth. But the danger is that she will transcend the limits of her just domain. This we think she has done under the guidance of Bunsen. She magnifies the difficulties arising from the received chronology of Bible history, and then resorts to expedients that destroy the truthfulness of that history. Certainly in such a work as this she should be watched, and her supposed facts and her expedients be severely scrutinized. If our faith in Bible history is to be undermined by philosophy, let us know what is proposed in its place.

The principal facts on which the author rests his system,
and the mode of argumentation, are foreshadowed in the following extracts.

"Philosophy has discovered the existence of two vast branches of cognate organic languages, the Semitic and Iranian. The stage anterior to Semism is Khamism. This antecedent stage is antediluvian. People history is postdiluvian. We find in it, thousands of years before Menes, first of all a world-wide empire—the realm of Nimrod, the Kushite, . . . . which probably embraced Egypt as well as Western Asia, the district of the Euphrates and Tigris.

"If we connect these views with the historical development before us, we shall find in the first place ancient history divided into antediluvian and postdiluvian. For the former we require 10,000 years, which we can prove proximately to be the extent of the latter period before Christ" (Vol. iv. p. 24).

"The legends of the classics about colonies from Egypt, in so far as they have any historical foundation, are explainable, just as are the expressions in the Bible that Kanaan, who was driven back out of lower Egypt, was the son of Kham"¹ (Vol. iv. p. 30).

"I must, on the other hand, repudiate all historical connection between the Helleno-Italic mythology and the Indians, or even their patriarchs the Iranians and Bactrians" (Vol. iv. p. 31).

"We start, therefore, with this premise, that in the Egyptian, we have obtained a fixed chronological point, and in fact the highest in general history. In it we find a perfectly formed language which we can prove to have been in existence about the middle of the fourth millennium B.C. We have, moreover, the means of determining approximately the epoch of the beginnings of regal government immediately before Menes. We, therefore, arrive at the very threshold of the foundation of language" (Vol. iv. p. 45).

With regard to "the premise" here named, with which the author starts, we simply remark here, that we do not admit it. Nor do we admit the existence of the "perfectly formed language" which he says he "can prove to have existed in the middle of the fourth millennium B.C." See remarks on this point below.

"The result of criticism goes to prove, however, that we cannot compute by the ordinarily received chronology, the interval between the above starting-point of the present life of man, and the oldest conquests in Asia—those of Nimrod, or the interval between them both and Abraham, the first historical personage in the Semetic reminiscences.

"On the other hand, the period of 21,000 years which has been adopted

¹ A reference to the expulsion of the Shepherds from Egypt.
by all the great astronomers of the day for the deviation of the earth's axis, brings us to two resting-places. The consequence of the deviation is a change of the proportion of the cold and heat at the poles, the greatest of which gives eight days more cold or heat.

"At the present time, in the northern temperate zone, spring and summer are seven days longer than autumn and winter; in the southern hemisphere, consequently, the proportion is reversed.

"In the year 1248 this favorable change in our hemisphere had reached its maximum, namely, eight days more warmth, and therefore the same number of days less cold. Consequently after a gradual decrease during 5250 years, in the year 6498, the two seasons will be in equilíbrio, but in the year 11,748 (5250 years more) the hot period will have reached its lowest point.

"Now if we calculate backwards 5250 years from 1248, we shall find that in the year 4002 B.C. the two seasons must have been in equilíbrio in our hemisphere. In the year 9252 B.C. the cold season had attained its maximum. The opposite or most favorable division of heat and cold took place, therefore, in the year 19,752 B.C.

"This epoch explains very simply the reason why the north pole is surrounded with perpetual ice only from about the seventieth degree, when at the south pole it is found at the sixty-fifth. In other words, the history of progressive human civilization with which we are acquainted is comprised within one hemisphere, and under climacteric accidents the most favorable to advancement.

"Now as we must suppose that the date of the commencement of our race was the most favorable both for its origin and continuance; and as, on the other hand, the catastrophe which we call the flood would have arrived at the next unfavorable period for our hemisphere, that epoch, the central point of which is the year 9250 B.C., would seem the most probable one for the change in climatic relations. This assumption is confirmed by the most ancient monuments and traditions. The chronology of Egypt shows still more clearly than traditions preserved in the Rabbinical Book of the Originés, that the flood of Noah could not have taken place later than about 10,000 B.C., and could not have taken place much earlier.

"The only question therefore is, whether the history of the human race, and consequently the orígenes of the primitive world, date from the above-mentioned favorable epoch, about 20,000 B.C., or whether we are justified in going back to the last epoch but one, or about 40,000 B.C." (Vol. iv. 52-54).

1 What monuments and traditions? As far as we know, even our author has failed to specify them; unless such a specification is intended by his brief allusions to the mythological periods of some of the ancient nations.
The following extracts show an important part of the argument adopted to maintain these assumptions:

"The formative words in the Egyptian mark the transition from Sinism to Khamism, — from the particle language to the language of parts of speech. . . . The earliest Turanism to the east of Khamism marks the first stage of organic language, i.e. of language with the parts of speech. The second is Khamism, i.e. the stage of language we meet with in Egypt." (Vol. iv. p. 558).

"The shortest line from inorganic language to organic is that of Sinism through primitive Turanism to primitive Semism, the deposit of which in the valley of the Nile we have in Egyptian. The last emigration was probably that of the Arians to the country of the five rivers. The oldest hymns in the country of the Punjaub go back to 3000 B.C. This community of language must then, at all events, be supposed to have existed much earlier than 3000 B.C. They had consequently at that time long got over the stage of underived Iranism and Semism. Between 10,000 and 4000 B.C the vast step in Asiatic advancement from Khamism to Semism, and from Semism to Iranism, was made. If the step from Latin to Italian be taken as a unit, this previous step must be reckoned at least at ten or at twenty" (Vol. iv. p. 562).

"From all this it appears that the period of one great revolution of the earth's axis (21,000 years) is a very probable time for the development of human language in the shortest line; and that the double of this, which we should be obliged to suppose, would be a highly improbable one." (Vol. iv. p. 563).

"It has been shown at the commencement of this volume, that we may hope by a combination of researches and observations to establish that mankind has only terminated one astronomical period, and commenced the second in the year 1240 of our era, and there are reasons for placing the intermediate catastrophe in the most unfavorable part of that period, or about 10,000 B.C. As to subdivisions, if too large a space has been assumed in this one, there is room enough for it in the other. We see no reason for going back to a preceding epoch of 21,000 years; but less than one period is impossible, were it only because of the stubborn fact of the strata of languages. To what point then is Egypt brought back by this calculation? To the middle at least of the ninth millennium of man, as the period of the immigration of the western branch of our race into the valley of the Nile. But this is the very close of the primitive world in the strict sense, that is to say, of the history of our race before the great convulsion of that part of central Asia, to which we turn as the cradle of mankind. This convulsion, which we know as the flood of Noah, in all probability coincides with that epoch of the northern hemisphere when the temperature was lowest, or from 9000 to 10,000 B.C., just as the origin
of our race coincides with that period of it when the temperature was highest, which was 10,500 years earlier.

"If this principle be correct, the Egyptians can have known nothing of the flood, allusions to which we find everywhere among the Iranians and Semites; and in truth no such tradition is current among them, any more than it was among the old Turanians and Chinese " (Vol. iv. p. 564).

In regard to the above hypothesis of the great antiquity of man on the earth, and the arguments in support of it, we think little needs to be said by way of confutation. We must, however, briefly state the reasons why we do not receive the hypothesis, and think the arguments inconclusive. We might use the words "absurd," "irrational," and other stronger disparaging epithets, in relation to the author's reasoning, and think ourselves justified in their use. But the use of such terms generally weakens an argument. For what one calls absurd, another regards merely as inconclusive, a third, fair reasoning, and a fourth, sound argument. We therefore will endeavor to meet the argument of our author in a sober, matter-of-fact style of reasoning.

And first as to his astronomical argument. The substance of the argument is this: On account of "the deviation of the earth's axis" the northern and southern hemispheres enjoy unequal degrees of heat and cold. When this difference is at the extreme, the seasons of "spring and summer are eight days longer than autumn and winter." But "the history of progressive human civilization with which we are acquainted, is comprised within one hemisphere, and under climacteric accidents the most favorable to advancement." These "favorable climacteric accidents" are the seasons of spring and summer being longer than autumn and winter. Therefore as man has mostly lived in the northern hemisphere his creation must have taken place when the heat was greatest in this hemisphere, i.e. about 20,000 B.C., and the flood must have taken place about 10,000 B.C., when the cold was at its maximum.

In regard to this argument we remark: First, we neither admit the premises or the conclusion. Having passed some
fifteen years in the southern part of that belt which has been most densely peopled by the race, we have a little experience that bears directly on the point. We thought and felt decidedly, that the cool season was more favorable to physical and mental vigor, to physical and mental development, than the hot season. And, if we mistake not, such were decidedly, the thoughts and feelings of all in that land who had much to do in the various spheres of bodily and mental activity. So that if we were to use Bunsen's premises we should draw the conclusion the opposite to that which he has drawn. We confess we should never advance this argument to prove that man was created about 10,000 B.C.; but we think it worth as much in support of such an epoch of the creation as that of our author in favor of the higher one of 10,000 years earlier.

Again, in point of fact, in what climate has the race of man attained to the highest degree of development in both body and mind? If we look at the present generation we certainly cannot point to the mildest parts of the temperate zone as furnishing the best specimens of intellectual and physical vigor. Edinburg and Glasgow are almost 56° N. Lat.; London is almost 52°; Berlin is farther North, and Paris is about 49° N. It is true that, as we go back into the early historic times, we find the region of human superiority a little further South. Greece is between 37° and 45° N., and Italy between 40° and 46° N.; and Palestine and Egypt and Chaldea were still further south. But the ancients were not equal to the moderns. The reason was, they, through love of ease, delighted in the softness of tropical climates, where a little effort suffices to meet the wants of a degenerate physical nature. They settled along the banks of such streams as the Nile, the Euphrates and Tigris, the Indus and Ganges. It was when they settled in the more northern and cooler climates that the greater strength of body and mind was developed in the race. Where, we would ask, was the garden of Eden? Mount Ararat is in about 40° N. Lat.; and since geologists tell us that the mighty currents which have
swept over the earth, the marks of which are now seen on the solid rocks, were from north to south, and that which caused the deluge of Noah was probably in the same direction; the ark floated south during that one hundred and fifty days, hence the garden of Eden was north of the mountain where it rested, and was, therefore, about in the middle of the temperate zone; whereas, according to our author's theory and argument it should have been further south. We beg our readers not to spend time to criticize this argument, for in itself considered it will not bear criticism. We only put it forth to meet the reasoning of our author. In fact, the line of argumentation is about parallel to his, and equally conclusive. If we placed any value on the argument from heat and cold as aiding to fix the epoch of the creation of man, we should be inclined to place the epoch at the time when the heat and cold of our hemisphere were in equilibrio, which would be for the last time (according to our author) about 4002 B.C. This differs only two years from the commonly received chronology. But we do not believe in this heat and cold argument. Even if we should admit the premises, that the time when spring and summer are eight days longer in our hemisphere than autumn and winter, is most favorable to human development, it would by no means follow that the creation of man took place at that time.

Our author speaks of some ancient traditions that favor his theory of great antiquity of the race of man on earth. We do not know to what traditions he alludes in this connection. He does indeed, in other places in his volumes, speak of the mythological-ancient historic periods of the Egyptians, the Chaldeans, and the Hindus. Thus the Egyptians have a history of 24,925 years\(^1\) before Menes; the Chaldees reckoned in Saroi, Neroi, Sossi, and as usually interpreted, 432,000 years before the flood of Xisuthrus; and the Hindus have their Kalpa of 4,320,000,000 years, which they call the day of Brahma.\(^2\) We have not time to give our theory in this

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\(^1\) Eusebius, Chronicon Book ii.

place of the origin of these immense periods in mythological history. We confess that at first sight it seems to be a little remarkable that those three people should have introduced such periods into their mythology. But when each case is considered separately, we find an almost entire want of evidence that these large numbers had their origin in a more ancient existence of man on earth than the Mosaic chronology indicates.

We turn now to occupy a little space on our author's geologico-linguistic argument in support of his hypothesis: The argument for the great antiquity of the race based on "the strata of languages." It would not be fair to press too far the want of analogy in important respects, between rocks and language. We will admit the fundamental idea involved in the reasoning, namely, change in language proves lapse of time. But while we admit this, we do not admit the correctness of his reasoning when he infers such vast durations as proved by this change.

We shall not take time and space for any very labored argument in confutation of Mr. Bunsen's reasoning from "the strata of language." The bare statement of the theory in his own language, as given above, is sufficient for the sober philologist and philosopher. We shall content ourselves with stating a few difficulties and objections that, in our mind, lie in the way of receiving his theory.

In giving the characteristics of the first age of the world, our author places the "formations and deposits of Sinism 20,000–15,000 B.C.," "in Northern China." This was the "primitive language" of the race, "spoken with rising and falling cadence." How does he know this? He arrives at the conclusion, it seems, through philosophical reasoning, and that based on imagination instead of facts. He says: "The shortest line from inorganic language to organic is that of Sinism through primitive Turanism to primitive Semism, the deposit of which in the valley of the Nile we have in Egyptian" (see above). How does he know this? We know the shortest line between any two points is a straight
But we do not see that the line designated above is straight. But, crooked or straight, the line must pass through Khamism and be extended on to terminate in Iranism.

Now, to what extent do any facts in history or philology support this reasoning? Have we not Sinism still, and Turanism and Semism—Khamism being admitted to be dead, and only known from its cropping out a little in Egypt. If Iranism—the latest and highest type of language according to our author—is the result of the laws of development of language, why is there still so much Sinism and Turanism and Semism in the world? It is true our author speaks of primitive Turanism and Semism; but the laws of development ought to have carried the whole body of human language on to the latest and highest formation, Iranism. That such has not been the result, shows that the laws have not operated according to his hypothesis, and vitiates the whole reasoning.

Our author alludes to the development of the ancient Latin into the modern Italian. He says: “If the step from Latin to Italian be taken as a unit, this previous step must be reckoned as at ten or at twenty,” and then infers “that 21,000 years is a very probable time for the development of human language in the shortest line.” This allusion to the Latin and Italian is directly in point. It points us to a fact which we can understand. But how does this fact fit in with our author’s reasoning? We have a change in language and the duration of time in which this change took place. But it is important to notice that the modern language has taken the entire place of the ancient one, and covers the ground occupied by it, and the ancient now exists as dead language. And, according to the principle of our author’s reasoning, Iranism ought to cover all the ground occupied by its predecessors, and they be found only as dead languages. As he has it, Sinism developed into Turanism, and this latter into Khamism, and this again became Semism, and Semism, Iranism, which he seems to regard the most perfect language. But we have still spoken Sinism and Turanism and Semism,
if not in their primitive, still in their pure, forms. Now, if there is such a law of development as our author has made the foundation of his reasoning, why did not all Sinism develop into Turanism, and this latter into Khamism and so on? We cannot see.

When geologists speak of the Azoic, the Paleozoic, the Mesozoic, and the Cainozoic; of the Eocene, the Miocene and Pliocene; of the old and new Red Sandstone, we understand that the later formations merely succeeded the former, and were from new materials. But this cannot be the principle of the formation of Bunsen's strata of languages. Each succeeding stratum came forth from its predecessor; a supposition which is manifestly entirely unsupported by any facts in philology. What facts are there to show that Iranism was developed from Semism; i.e. that the Indo-European languages are from the Semitic? Are not some of the oldest records of the race now found in the Iranian languages? Again, are not some of the Semitic languages as perfect as the Iranian? The same comparison may be instituted between the latter and some of the Turanian family. There may be more learning in the Sanscrit, the Greek, Latin, and German than there is in the Arabic, the Ethiopic, the Hungarian, Turkish, Tartar, or Finnish languages—the difference being easily accounted for; but do not the latter languages have all the marks of fully developed specimens of human language that are found in the former? And while changes may be expected to take place through the lapse of time, in the Semitic and Turanian tongues above specified, yet will they ever be in their structure more like the Greek, Latin, Sanscrit, and German than they now are? Yet Bunsen's hypothesis and reasoning require such a result.

The truth is, that from aught that appears from any facts which comparative philology has collected or history recorded, there is no reason to think that the origins of the Chinese, of the Tartar, and other Turanian languages are more ancient than those of the Semitic and Indo-European tongues. In fact, it seems far easier to us to account for Sinism and
Turanism by regarding them as offshoots from an ancient Semitico-Iranism, than it is to dispose of the difficulties attending the reverse process which Bunsen adopts. It is easy to imagine that parties of unliterary, wicked members of the early communities after the flood, being impatient of restraint, should wander away over the Imaum and Tien-shan mountains into Mongolia and Manchouria, where they would degenerate, and when the more literary and cultivated of the same ancestry should discover them centuries after, they would appear to be a distinct race.

Hugh Miller (Testimony of the Rocks, p. 272), speaking of tribes degenerating and perishing, quotes an account of "great multitudes of native Irish," who (1611-1689) "were driven from Armagh and the south of Down into the mountainous tract extending from the Barony of Fleurs eastward to the sea." .... "In Sligo and northern Mayo the consequences of degeneration and hardship exhibit themselves in the whole physical condition of the people, affecting not only the features but the frame. Five feet two inches on an average, pot-bellied, bow-legged, abortively featured, their clothing a wisp of rags, these spectres of a people that were once well-grown, able-bodied, and comely, stalk abroad into the daylight of civilization, the annual apparition of Irish ugliness and Irish want."

This scrap of history appears to us exceedingly valuable, as throwing light on our subject. The author quoted says nothing of the language of the degenerate tribe. But this of course must have partaken of the degeneracy of the body and mind. And does not this item of history fully account for the fact of tribes of the human family being found in various parts of the earth that are very low in the scale of civilization, — but just above the brutes, — without the supposition of an original half-monkey condition as the primeval state of the human race for ages after the creation of the first individuals. We reject, then, the hypothesis of Bunsen. Both facts and philosophy are against it. We believe that Sinism and Turanism — to adopt our author's nomenclature
— are the degenerate offshoots from an original stock, from which the Semites and Iranians are directly descended. And, while we would not claim for the language of this original stock, the most ancient — perhaps going quite back to the flood — the culture of the ancient Sanscrit and Greek, yet we reject decidedly the idea of such an infancy of human speech, extending through centuries, ages, as Bunsen and writers of his school are fond of supposing.

But our author has another argument for the great antiquity of our race, especially in Egypt. In the area of Memphis is the statue of Rameses II. Around this statue, the sediment is nine feet four inches deep. The date of Rameses (in his system), is 1391–1225 B.C. say, 3214 years before 1854 A.D. This gives the increase of three and a half inches for each one hundred years. But the sediment is thirty feet deep below the statue. And a fragment of pottery was brought up from a depth of thirty-nine feet below the surface. This depth requires a period of 10,285 years previous to Rameses, or about 13,500 before 1854, which “appears to establish the fact that Egypt was inhabited by men who made use of pottery about 11,000 B.C.”

In regard to this fact and reasoning, it is only necessary to remark, that there are half a score of suppositions, all plausible, each of which would altogether alter the conditions of the problem, and vitiate the result. The piece of pottery might have been dropped into a well, or deep hole; their may have been a canal; the channel of the river may have been diverted; the increase of sediment may not have been uniform. The rate of increase may have been entirely different as we go back into antiquity.

A recent Report upon the Physics and Hydraulics of the

1 Egypt's Place in Universal History, Vol. iii. Pref. p. xi.
2 Since writing the above, we have seen a statement of facts that fully and finally disposes of this piece of "Nile pottery." Sir Gardener Wilkinson has discovered marks upon the fragment that clearly indicate "an age not exceeding two hundred years prior to the Christian era." See Church Review, Jan. 1866, p. 527.

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The Mississippi River, has come to the conclusion, from many considerations, that the mouth of the river was once about two hundred and twenty miles above where it now is, and that the river is now building out into the Gulf new land at the rate of two hundred and sixty two feet every year. At this rate we have a period of about 4400 years, as the time required for the growth of the delta to its present extent. Now is not the Mississippi as old as the Nile? And why may we not prove the age of the world as well from the American "father of waters" as from the Egyptian? But alas, we have another report that alters the data, which says: "It is calculated that from 1720, a period of eighty years, the land has advanced fifteen miles into the sea, and there are those who assert that it has advanced three miles within the memory of middle-aged men." This gives an increase of nine hundred and ninety feet a year, which would give about 1150 years as time for the formation of the delta.

We have no objections to geologists speculating about the formation of the deltas at the mouths of the large rivers of the earth, but let them be more agreed, and more certain of their data, before they attempt to frame from those data an argument to controvert the truth of the Bible. From the very nature of the case they never can be sure of their data. Much of Bunsen's reasoning to support his "assumption" of a great antiquity of the race of man, both from the "strata of languages" and the "strata of mud," is based upon data imaginary and uncertain. As if we should say, "If nine feet four inches of sediment has formed around a statue in Memphis since the time of Rameses II., how long did it take the Mississippi to extend its mouth two hundred and twenty miles into the Gulf of Mexico?" We say this statement with the mathematical result according to the fig-

1 "Prepared by Captain A. A. Humphreys and Lieutenant H. L. Abbott, of the United States Topographical Engineers"; and reviewed in the North American for April 1862.

ures, would be on a par with much that is found in Bunsen's pretentious volumes.

We must devote a little space to our author's chronology of the patriarchs, especially to his era of Abraham. We have here some rich specimens of "philosophy." We need do little more than exhibit the philosopher's theory in his own words.

"We will now take a glance at dates. Here the first step undoubtedly must be to abandon the views and system adopted by the narrator, from the impossibility of an historian dealing with men who beget children like other people at the age of thirty and live more than four hundred years afterwards. Those upon whom this consideration fails to make an impression may still be staggered by the fact, that upon this calculation the patriarch Noah lived down to the time of Abraham\(^1\) without troubling himself about the history of the world. Neither can we venture, like the authors of the Septuagint, to falsify the text,\(^6\) and in order to get rid of the disproportion, add one hundred years to the ages of these geographical patriarchal monsters at the time of their marriage. We have, therefore, but one alternative — to ascertain which of the two is the really traditional date, that of the ages after the birth of the first son, or that of the whole date; to ascertain, in other words, whether the narrator had the authority of tradition for the former date, and, in order to assist his chronology, added at random, thirty or forty years to their ages when the first son was born; or whether he found the whole sum total recorded, and deducted from it whatever suited his purpose.\(^8\) The fact of his not stating the sum total would incline us to adopt the former view. But in the immediately preceeding entries about Noah and Shem, we can prove that the complete sum total is the actual traditional date. In each case it is six hundred years, which was shown to be the original Chaldaic equation between lunar and solar years. We must therefore assume that it is so here also."

The postdiluvian times to Abraham are thus disposed of (the tabular form being somewhat abridged for the sake of space):

\(^1\) This is a real objection or difficulty if we adopt the Hebrew chronology, but it entirely vanishes if we adopt that of the Septuagint.
\(^2\) This is amusing, standing, as it does, in connection with the author's radical alteration of the text of scripture.
\(^8\) On such suppositions what becomes of the inspiration of the scriptures, or even of their authenticity? Yet our author professes great reverence and regard for the Bible. He would not alter a date.
\(^4\) Our eyes have not fallen on this proof. We know that Josephus (Antiq. i. iii. 9) speaks of a "great year" of six hundred common years; but what has that to do with the six hundredth year of the life of Noah, as the date of the flood, and the duration of Shem's life? It is all assumption.
There are three periods or divisions:

A. **Sem (Arapakithis)**, i.e. the primeval land of the Kasdim (Chaldees), the frontier mountains of Armenia towards Assyria, 438 years.

B. **Selah, "The Mission,"** 433 years; Heber, the settler over the river (Tigris), 464 years; Peleg, derivation, partition, 439 years; Yohtan (father of thirteen South Arabian races).

C. **Re’Hu, district of the shepherd country of Edessa (Bohi),** 239 years; Serug (in Osroëne, Sarug, west of Edessa), 230 years.

D. Nahor goes to Ur of the Kasdim (Chaldees), 148 years.

Terah leaves Ur of the Chaldees and goes to Haran (Karra), a day’s journey south of Edessa, 275 years (70 + 205).

Nahor sets out from Sarug to Ur of the Chaldees, 148 years (29 + 119).

Terah sets out from Ur to Haran, that is back towards Osroëne, on the way to Canaan. He lives 205 years. At the age of seventy he begets three sons in Ur.”

“The there is a remarkable closeness between the first three (geographical historical) dates, Arphaxad, Selah, and Eber: Arphaxad 438 years, Selah 435, and Heber 464.

“Supposing Arphaxad to represent the duration of the Semitic settlement Arapakithis, the mountainous district above Assyria, prior to the memory of man. ‘The Mission’ would represent the journey towards the plains three years before the close of this migration, and ‘Heber’ would represent the period when the migrating race passed over the Upper Tigris on their way to the Upper Mesopotamia. The year four hundred sixty-four would in that case be the one in which they entered Mesopotamia proper, and the tribe must have remained in a compact body two hundred and thirty-nine years before a portion of them commenced the great migration southward, the result of which was the foundation of the kingdom of Southern Asia.” (Vol. iii. p. 867). “This would make nine hundred and thirty-three years to Nahor the grandfather of Abraham” (i.e. 464 + 239 + 230 = 933 years) (Vol. iii. p. 869).

Sober criticism on the above would be entirely out of place. We venture to affirm that there is not within the whole compass of literature another such perversion of an evidently plain historical narrative into a monstrous historico-chrono-logico-geographical jumble.

“Noah was six hundred years old when the flood of waters was upon the earth” (Gen. vii. 6). This six hundred years is “the Chaldaic equation between the lunar and solar years.” “And Noah lived after the flood three hundred and fifty years.” This is: “half of another equation with a surplus of fifty years.” Only fifty more! “Arphaxad lived five and
thirty years, and begat Salah; and Arphaxad lived after he begat Salah four hundred and three years, and begat sons and daughters” (Gen. xi. 12, 13). This four hundred and thirty-eight years represents “the duration of the Semitic settlement in Arapakithis, the mountainous district above Assyria, prior to the memory of man.” And the sacred writer probably, “in order to assist his chronology, added at random the thirty-five years when the first son was born” (!) “And Salah lived thirty years, and begat Eber; and Salah lived after he begat Eber four hundred and three years, and begat sons and daughters” (Gen. xi. 14, 15). Salah means “the mission.” “The four hundred and thirty-three years represent the commencement of the journey towards the plains, three years before the close of this migration.” “Heber” means “the settler over the river (Tigris)” ; and “represents the period when the migrating race passed over the Upper Tigris on their way to Upper Mesopotamia. The year four hundred and sixty-four would in that case be the one in which they entered Mesopotamia proper, and the tribe must have remained in a compact body two hundred and thirty-nine years before a portion of them commenced the great migration southward which was the foundation of the primeval kingdom of Southern Asia.” And so of the other names and numbers. But Bunsen has not told us what was meant, on his theory, by the frequently recurring phrase, “and he begat sons and daughters.” This he was certainly bound to do. It is true that in the case of the two sons of Heber, Peleg and Yoktan, he makes the former mean “derivation,” “division, two hundred and thirty-nine years,” and the latter the real “father of thirteen South Arabian races”; which distinction appears to have been made on some principle of philosophy peculiar to him; but he ought not to have left unexplained so important a phrase so frequently occurring as “sons and daughters.”

We must devote a little space to our author’s chronology of Abraham and the two or three succeeding generations. For in this his “philosophy” appears to peculiar advantage.
After giving the well-known numbers, as in the following table:

<table>
<thead>
<tr>
<th>Individual</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abraham</td>
<td>175</td>
</tr>
<tr>
<td>Isaac</td>
<td>180</td>
</tr>
<tr>
<td>Joseph</td>
<td>110</td>
</tr>
<tr>
<td>Jacob</td>
<td>147</td>
</tr>
</tbody>
</table>

Bunsen proceeds to say:

"Here it is not a question of a solitary exception in the case of one individual. It is true that no instance can be adduced demonstrably of any one reaching the age of one hundred and eighty. Such a case, however, as an exception, would not contravene the laws of nature. But that three patriarchs should have lived, one after the other, one hundred and fifty years, and even more, and the viceroy, Joseph, their successor, one hundred and ten, cannot be historical. There must be some means of detecting some blunder here, or else the historical nature of the narrative will be liable to grave suspicion. None but those who cling to the infatuation that the antediluvian patriarchs, as well as Noah and Shem lived from six hundred to one thousand years, have any excuse to offer for such purely childish delusions, persistence in which can only be productive of doubt and unbelief.

"But there is no country in which it is so improbable that a man a hundred years old should have a son as in a land of early development, like Syria and Canaan. But are we compelled on that account to regard these four ages of the patriarchs as primitive inventions? No one who admits the strictly historical character of the principal branch of the family narrative of this period will come to this conclusion" (Vol. iii. pp. 340, 341).

"But then this family possessed an era, as was always the case with noble Semitic races; this era must have been that of the immigration" (id.).

"In the history of Abraham we find two predominant numbers, the seventy-fifth year (that of the immigration), and the one hundredth, the birth of Isaac. In this interval so many events occurred as also, to require a considerably long sojourn in Canaan prior to his birth.

"We assume, therefore, 75, as the year before the birth of Isaac; 25, as the duration of the sojourn in Canaan; and consequently, 51, as the first year of the settlement in Canaan.

"But there is also a place for the one hundredth year (which is said to be that of the birth of Isaac), as the year in which Abraham died. This again cannot be accidental. The computation backward—the turning-

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1 Our author's "philosophy" likewise sets aside the plain declarations of the New Testament. What becomes, on his theory, of Rom. iv. 19 and Heb. xi. 11, which endorse the account in Gen. xviii. 19-15 and xxi. 5.

2 Our author distinctly admits that Abraham is strictly a historical person, as well as Isaac, Jacob, and Joseph.

3 More assumption.
point is so historically important and well established — leads directly to the same conclusion. According to this Jacob died in the one hundred and forty-seventh year, not of his own life, but of the era from the immigration of Abraham. Joseph again, not of his own age, but of the era of Jacob” (Vol. iii. p. 344).

“The reader will here find an account taken of every date which occurs in the scripture narrative.1 Whatever is determined upon grounds of internal probability, such as the births of Isaac and Jacob, is placed in brackets. There cannot, therefore, be an error of more than two or three years at most.² Those which are placed in parentheses are such as arise out of the entries in the Bible in reference to years of marriage. These are consequently in themselves thoroughly authentic. All the other dates are taken directly from the Bible.”³

Truly, this is taking the subject of chronology “out of the domain of chronology and history into that of pure philosophy” (Vol. iv. p. 22). An account is taken of every date in the scripture narrative! Only the date of the son’s birth is changed to that of the death of the father. The real date of this latter event being ignored altogether. Is any language, proper for a Christian to use, too severe in repres- 

hension of such a procedure? What! we involuntarily exclaim, was the man insane? Had he become imbecile? Had he so long been groping amid the sepulchral monuments of antiquity that he could not recognize, in the clear light of day which other men use, a plain historical fact?

“And Abraham was an hundred years old when Isaac was born” (Gen. xxii. 5); that is, as our author interprets it, “he was a hundred years old when he died.” “And Abraham was seventy-five years old when he departed out of Haran” (Gen. xii. 4); that is, “the seventy-fifth year is the year before Isaac was born.” And so of other dates and events in connection with the scripture narrative. “An account is taken of every date in the scripture narrative.” He might as well have taken the alphabetical letters and figures in the first fifteen chapters of Genesis, and so trans-

¹ The italics are ours.
² Referring to a table which is not copied, the essential part appearing in what follows.
³ Egypt’s Place in Universal History, Vol. iii. p. 344.
posed and arranged them as to make out a story of the creation about 20,000 B.C., and of the flood occurring 10,000 B.C., and the "development" and "strata" of languages, etc., according to his system, and then have claimed the Bible as authority, telling us we should find "an account taken of every letter and figure in the scripture narrative." If any x's or z's, or other letters, or any figures, had remained unappropriated, he could have found a "place" for them. We say had he done this, the process would have been about as rational as that which he has adopted in relation to the history of Abraham and his successors in the patriarchal line.

Bunsen lays great stress on the improbability of a man having a son at the age of a hundred years, especially in such a land as Palestine; this improbability being even a corner-stone in his argument. With him, in his "philosophy," the assertion of the sacred writer, that the event is miraculous and the endorsement of the miracle by an inspired apostle (Rom. iv. 19 and Heb. xi. 11), go for nothing. Thus the New Testament suffers alike with the Old under this rationalizing process.

When we read the following caustic criticism on Bunsen's work, we thought it probably a little extravagant. But we are now prepared to receive it as just, though we have not given particular attention to points criticized.

"Sesostris is the great name of Egyptian antiquity. Even the builders of the pyramids and of the labyrinth shrink into insignificance by the side of this mighty conqueror. Nevertheless, his historical identity is not proof against the dissolving and recompounding process of the Egyptological method. Bunsen distributes him into portions, and identifies each portion with a different king. Sesostris, as we have stated, stands in Manetho's list as third king of the twelfth dynasty, at 3320 B.C., and a notice is appended to his name, clearly identifying him with the Sesostris of Herodotus. Bunsen first takes a portion of him, and identifies it with Tosorhthrs (written Sesorthrus by Eusebius), the second king of the third dynasty, whose date is 5119 B.C., being a difference in the
dates of 1799 years—about the same interval as between Augustus Caesar and Napoleon. He then takes another portion and identifies it with Sesonchotis, a king of the twelfth dynasty; a third portion of Sesostris is finally assigned to himself. It seems that these three fragments make up the entire Sesostris."

We say we can receive this as just and true; for if it should be found to be a little colored in relation to this particular point, yet we know it is strictly applicable to some parts of Bunsen's works. We have long entertained the opinion that the occupation of deciphering hieroglyphics and ancient inscriptions is not promotive of a healthy and sound mind, but rather the opposite. Except in cases where the character of the inscription is comparatively modern, or the subject-matter largely connected with well-known historical facts, there is much to be made out by conjecture, imagination, and assumption. The mind soon becomes accustomed to the work of combining doubtful elements, till at length conjecture and assumption are put on an equality with true knowledge and real fact. Whether Egyptology has, in general, fallen into unsafe hands, or the principle above alluded to operated with peculiar power in this department of research, owing, perhaps, to great inherent difficulties of the subject, the opinion seems to be wide-spread, even among the learned, that the principles of sound reasoning, sound philosophy, and common sense, are not, to say the least, very strictly adhered to by professed Egyptologers as a class. The following from the able writer last quoted, we regard as an appropriate and well-deserved criticism:

"Egyptology has a historical method of its own. It recognizes none of the ordinary rules of evidence; the extent of its demands upon our credulity is almost unbounded. Even the writers on ancient Italian ethnology are modest and tame in their hypothesis compared with the Egyptologists. Under their potent logic, all identity disappears; everything is subject to become anything but itself. Successive dynasties become contemporary dynasties; one king becomes another

1 Sir G. C. Lewis's Survey of the Astronomy of the Ancients, p. 369.
king; one name becomes another name; one number becomes another number; one place becomes another place."

The writer then adduces examples, a specimen of which is given in a preceding quotation. And do not the quotations we have given above from Bunsen’s work fully sustain this caustic criticism? In a plain historical narrative names of men are transformed into names of places and countries and events; the number denoting the year of a man’s life, denotes the time of the tribe passing the river Tigris; the date of the call of Abraham to leave his country is that of the birth of his son, and the date of the son’s birth, becomes that of the father’s death.

We would not undervalue the labors of Egyptologists. They have opened up a fascinating branch of study, and brought to light many interesting and valuable things—yea, even valuable truth. Their works give a general idea of the state of ancient Egypt, which in the main, we regard as truthful. They have translated portions of a chapter of the world’s history, and we may admit with a good degree of correctness, which a few years since was altogether in an unknown language. But from the very nature of their materials, they can never produce any connected history or chronology that can set aside what has usually been received as authentic history or chronology from other sources. This is evident from the fragmentary state of the materials, the absence in them of authentic connection, and the presence of numerous irreconcilable contradictions. This being the condition, all that we can expect from Egyptology is a general corroboration of facts and truths elsewhere stated, occasionally clearing up a doubt or adding to an imperfect statement; and when new facts and truths are professedly brought to light which are independent, we will receive them for what they are worth. Egyptology has already furnished much that is corroborative of the general truth of the Bible, but we repeat it, it cannot, in its present state, be entitled to modify materially, much less controvert or set aside, any important fact or statement in the sacred volume.

1 Survey of the Astronomy of the Ancients, p. 358.