

OUR RACE

ITS ORIGIN AND ITS DESTINY.

A Serial Devoted to the Study of the Saxon Riddle.

Series II., No. 6.

Feb. 22, 1892.

Subscription for Series, \$2.00.

THE DELUGE.
THE FACT OF HISTORY.

A

SCIENTIFIC SPIKE
THROUGH NOAH'S ARK,

OR

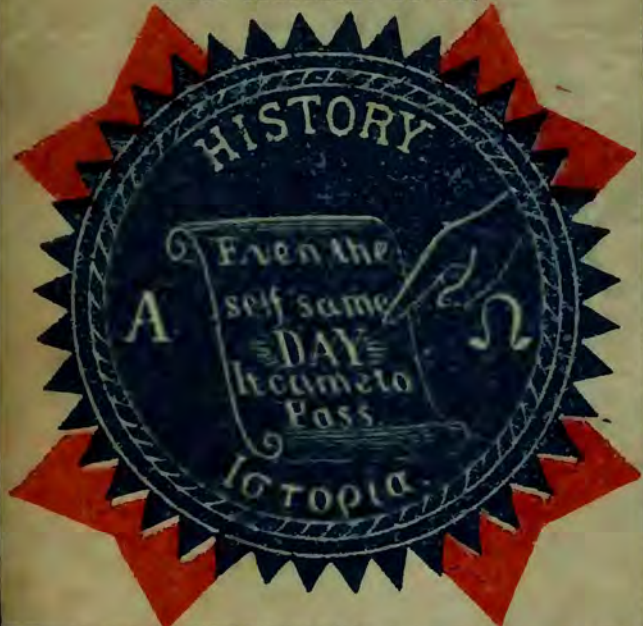
A BIBLICAL "FISH STORY"

CRITICALLY EXAMINED.

C. A. L. TOTTEN U. S. A.



Jer. XXXII. 11-15.



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"TRUTH AGAINST THE WORLD" (Motto of the ancient KUMREE).

"We can do nothing against the truth" (St. Paul); "Great is Truth, and mighty above all things" (Esdras); "Buy the Truth and sell it not" (Solomon); "Truth is stranger than fiction" (Byron); "What is Truth?" (Pilate); "I AM THE TRUTH" (Assertion of THE CHRIST).

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—♦— "I, too, am of Arcadia." —♦—

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THE FLOOD, The Fact of History.

A
CHRONOLOGICAL VINDICATION,
AND
A GUARANTEE
OF
The © Second © Advent.

BY
CHARLES A. L. TOTTEN,

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FANCIES, LEGENDS, AND LORE OF NATIVITY," ETC.;
EDITOR OF "OUR RACE," ETC.

"But as the days of Noe were so shall also the coming of the Son of Man be. For, as in the days that were before the flood, they were eating and drinking, marrying and giving in marriage until the day that Noe entered into the Ark, and knew not until the flood came and swept them all away, so shall also the coming of the Son of Man be."—Matt. xxiv., 37-39.

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THIS STUDY IS
RESPECTFULLY DEDICATED TO
PROFESSOR HUXLEY AND COLONEL INGERSOLL;
AND TO SUCH OTHERS,—
GNOSTICS, AGNOSTICS, AND ANTAGO-GNOSTICS,—
AS STILL MAINTAIN THAT
“MOSES” MADE “MISTAKES”;
EARNESTLY CONJURING THEM TO RE-INVESTIGATE
THE SUBJECT
NOW!

*“ And the Sons of Noah, that went forth out of the ark, were Shem, and Ham, and Japheth ; * * * and of them was THE WHOLE EARTH overspread * * * unto them were sons born after the flood, * * * and by these were the nations divided in the earth after the flood.”*

Gen. ix. 18-19, x. 9-32.

STUDY NO. 6.

OF

THE OUR RACE SERIES.

The Fact of History.

TOTTEN.

“ And behold I, even I, do bring a flood of waters upon the earth, to destroy all flesh, wherein is the breath of life, from under heaven; and every thing that is in the earth shall die, but with thee will I establish my Covenant.”

Gen. vi. 17-18.

STUDY NUMBER SIX.

THE FACT OF HISTORY.

THE DELUGE,

ITS CHRONOLOGICAL VINDICATION.

A GUARANTEE OF

THE SECOND ADVENT.

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PREFACE.

The Deluge is either a fact or a fable, and its investigation will eventuate in either one or the other of two irreconcilable conclusions—that the Bible is inerrant, or that it is the work of men's hands. If the former, it is an all-sufficient guide in the affairs of life ; if the latter, it is of no concern even in the affairs of death ! This is a fairly logical position, and will be recognized by the average thinker without reference to such wilful alterations, here and there, as the Scriptures clearly indicate were possible, and which they condemned beforehand with adequate penalties.

If the value of the volume which our ancestors believed was inspired of God, their testimony being still with us, shall ever be invalidated by human criticism, then the guarantees whereon those of their descendants who are still concerned and live a life of self-denial and sacrifice, are impotent, and "the Covenant" is as void of hope, or of any earnest of possible fruition, as "the Law" was condemnatory, and beyond the power of human adherence. Out of such an issue it were best to make no effort at extrication. "In for a penny, in for a pound," and

the writer for one would exact a pound sterling and try to spend it!

But the case is just reversed if the Flood is a Fact —*the* Fact of History! for, being vouched for by Him, a faith in whom is the sole condition of a continued individual existence, (i. e., after the resurrection!) it is manifest that His own verity is staked upon the tenor of the arguments he employed. Certainly we are warranted in placing but little credence in the Promises, as to the Future, of One who proclaimed Himself to be equal, (even to identity!) with the Father, if it shall ever be shown that in matters of mere Past History he was so credulously mistaken as to be justly charged with gross ignorance—for it would be either this or inexcusable misrepresentation! If the Noachic Flood, as recorded by Moses and believed in by his audience, were not “the truth, the whole truth, and nothing but the truth,” it would have been clearly better to have omitted all allusion to it, than to have used it as a threat, and an unequivocal warning, and finally be detected in an error!

That the Deluge *was* as momentous a FACT as the writings of Moses, and the endorsement of the Saviour imply, it is the office of this Study to demonstrate. The task is undertaken chiefly from the Astro-Chronological standpoint, although the testimonies of Geology and Physical Geography unite with the consenting records of all nations in witnessing the truth.

If then the Flood was legitimately used as a warning, the object of the warning is worthy of deep concern, and the purport of the “signs” about “this generation” is of sufficient moment to re-beget a quantum of faith in what the Apostles once for all delivered to the Saints. The Saviour’s sole object in pointing his discourse by an allusion to the Flood was to seal the Prophecy as to the certainty of his literal Second Advent. To recognize the impress of this seal as genuine, is to admit the indubitable authority of Him who spoke; and to perceive the latter is to jeopardize our chances for eternal life, unless we also heed the Gospel of His anticipated return—the which, whether we believe it or not, is now imminent!

Where, then, is the Sign of His coming? The Sign is the Fact of History, for if the Flood is not the Fact of Past History, the Advent is not the certainty of the Prophesied Future!

C. A. L. TOTTEN,
U. S. Army.

NEW HAVEN, CONN.,
January 21st, 1892.

*“For—if God * * * did not spare the Old World, but kept Noah, the Eighth (Herald, Minister, Priest, or Prince) of Righteousness, in safety, bringing a Deluge on a world of impious men,—the Lord knows how to rescue the pious out of Trial, and to keep the unrighteous for a day of Judgment to be cut off.”*

2 Peter xi. 4. 5. 9.

INTRODUCTION.*

THE TWO ERAS.

BY PROFESSOR W. I. KNAPP, PH. D., LL. D.

“As it was in the days of Noah, so shall it be also in the days of the Son of Man.”

THERE was once a day of destruction—so long ago it was, that men ignore it now—or, like Herder, call it a Biblical legend, an old wife's fable. That destruction was by water, and involved a whole generation. A remnant, however, was saved, a small remnant, a family—eight souls.

But the lost had timely, yea, protracted warning.

Noah was a long time building the ark—one hundred and twenty years. Every hammer-stroke was an exhortation to repentance and faith as the only way

* My associate and co-laborer, both here and in the cause of Christ, has kindly permitted me to use this little sketch, so apt and potent for my present purpose. It was penned some years ago, during the missionary days of 1870 to '73, when Spain, by him, was first reopened to the truth; but it is even more in touch with the needs of the *current* hour, to which those days were but preliminary. Aside from this the topic is itself forever new, for it is true, and as this treatment is with fire and faith, the readers of OUR RACE will certainly appreciate our mutual privilege.—C. A. L. T.

of salvation. Every plank hewn and transported and fitted was an entreaty, a wail of pity for the indifferent world; every smile of incredulity on the part of the looker-on was a rejection of the testimony whereby his condemnation was sealed.

God waited while Noah builded. The building completed, God's waiting ended.

Noah and his family entered the ark, and "the Lord shut him in." Then sudden destruction came and swept away all the children of disobedience. Not one was left.

During all those previous months and years, Noah knew what he was preaching—a real salvation from a real danger. He did not grow weary with the sameness of his theme, with the long mission of testimony confided to him. He did not seek to divert his discourse to a channel more in harmony with his time; he was opposed to the current of his time. He had a plain story to tell, and he told it without gloss. That ark was salvation, the world outside was ruin, was eternal death.

He knew and believed what it all ended in. He was not so simple as to be preaching what he himself did not believe. He knew God had told him the truth, had called him to declare it, and he warned his generation of the approaching catastrophe. That catastrophe was not natural death. Doubtless many died and were buried while he was preparing the ark. But that was not the destruction of which he spake, and for which God waited.

It was a great, a sudden cataclysm, a tremendous winding up of that dispensation, a something that had to do with the ark.

Nobody believed Noah, not a soul aside from his own family. He had no converts in all those years. He could make no favorable report, save that the ark was rounding into outline, was filling more and more the landscape with its colossal hulk.

It was discouraging. I wonder he did not give over his awful task, but he did not. He received jeers for his well-meant exhortations, and ingratitude for his offers of salvation. It was humiliating to his natural pride, and as iniquity abounded, his love, at times, must have waxed cold. But his eyes were fixed on the great dial of the epoch, and he believed in the dark shadow projected from it. A crisis was coming; the shadow marked its stealthy approach. Oh, if men would but see it as he did! They did not see it, however, for they bought and sold, they planted and builded, they ate and drank, they married and feasted, they lived on their life much as we do now. To them Noah was an austere man, reaping where he had not sown. He was a prophet of evil, a prey to an hallucination, resulting, no doubt, from a disordered physical or moral constitution. In short, Noah was mad, stark mad. So they excused themselves and congratulated one another on their cleverness in solving the old man's testimony, which they, in their blindness, only confirmed the more.

The Lord shut him in. Noah had done his work, he had obeyed his God, he had belittled himself in the eyes of the world, and now his turn had come. God remembered his faithful entreaties, his tears, his groans for his dying fellow-men, and so he hid him away from the appalling spectacle of a world in the hands of an outraged Judge. He saw not the strong man's agony, nor the pitiful look of the tender child. He was spared the pang of beholding the friend of his youth gasping for yet one more moment of sweet, sweet life. The Lord, in his mercy, shut him in. He left him in the awful silence of the tomb while the elements crashed and dashed around, beneath and above him. He had done his duty, he had toiled through the long week of testimony, and now he rested his Sabbath day in one of his Father's mansions. Still, fain would he have exposed his life to save his perishing fellows, bone of his bone, and flesh of his flesh; they would hear him now, but the Lord had shut him in. The door, once wide open, was at last closed forever against them. A great gulf lay between him and them. He and his were saved; they and theirs were lost. Oh, Almighty Father, God of Noah, help us to feel this simile now, for—

So shall it be again! Not a flood of water, but, indeed, a destruction far more fearful. History repeats itself. Men do not believe it, but God has said it. "He that believeth not shall be damned." The New Testament is not all love and charity, in

the popular sense of Christian love and charity. There is enough of old Moses in it to make it fume and quake with the smoke and thunders of Sinai.

So shall it be also in the days of the Son of Man. These are the days of the Son of Man. As it *was* in Noah's day, so *is* it also now. The wickedness of man is very great. Nineveh is London, Sodom is Paris, and Capernaum is New York. The men of Noah's day were bad enough, and incredulity was the sluice that swept them all away. "All these things happened unto them for ensamples, and they were written for our admonition, upon whom the ends of the world are come." But if men in that remote day perished even without the law, what shall be said of those who reject the law and the Gospel—that law which thunders athwart the ages of coming wrath, and that Gospel which points to the door of refuge from the storm? And yet it is true that the indifference of a sleeping world has crept into a sleeping Church, and sliding over empty benches, made of a sleeping pulpit a triumphant throne. "And *because* the bridegroom was long away, they *all* slumbered and slept." Oh! this is a sadder picture than the antediluvian one. Noah, at least, was awake; now all sleep.

Where now are the men that go out on God, as Noah, as Abraham, as Moses did? Where now is the power that Christ said should follow believers on His name? Were Paul and Peter and John the only believers? Where then is believers' faith to-

day? Why have we pinned the invisible end of it to the Apostles' skirts and left it hanging there as a sainted relic of "special times"? Why do we lay it at the Master's feet, saying. "There thou hast that is thine"? For so do we, so do I, when, leaving God's kind providence, we lean upon the papal systems of the hour. But do we believe? Then those signs shall follow us. Jesus Christ said so; Jesus Christ, the power of God, the arm of Jehovah, He promised to be with his people *always*, even unto the *end* of the age.

What killed out the life of the Church in the early centuries, and made Rome's colossal system possible? The theological discussions about Christ. Not about Christ, but about the unrevealed things of Christ. Things that no man can comprehend unaided by the Holy Spirit. It was Satan's snare. As the debate warmed, hell became jubilant. While men slept, the enemy sowed tares. If Satan can keep the nominal Church in philosophic dialogue on *logos*, *sarx* and *pneuma*, his cause is assured. It is because he will not always succeed in this that he trembles; and we take courage.

Let us return to Noah. As it was in his day, so shall it be yet again. When? In the catastrophe in which this *æon*, this dispensation (not the material *world*), will come to its crisis. What is the end? Universal destruction arising from universal incredulity. Every dispensation has issued in failure.

The world of Noah's day had this advantage over

that of ours, they knew what was coming, though they heeded not. In our day who instructs the people of the impending catastrophe? Who dare do so? Who would oppose such a "prophet of evil"? The world? No. The Church, the sleeping Church? Yes. And yet the men of this world are wiser in their generation than the children of light. The world scents the battle from afar. An instinct tells them that trying times are just ahead. Does the church prophesy in sack-cloth and ashes? Does she do so even in the purple and fine linen, and in the sumptuous fare of modern life?

Who knows what is coming? Read in order the following texts: Rev. xiii. 15, 16, 17; *id.* xiv. 9-11; *id.* xiii. 8; 2 Thess. ii. 11, 12; Rev. xv. 2; *id.* xvi. 15; Luke xxi. 35; 1 Thess. v. 3; Matt. xxiv. 25.

Do we know what we are preaching? Noah did—a real salvation from a real danger (Luke xxi. 36.) There cometh a time when a generation on this earth will be damned forever and ever. There will be no two classes even. Those who will not have received the "idol shepherd" at his advent, will be put to death, (1 Peter, iv. 12; 1 Cor. iii. 13; 1 Peter, i, 7.) for Christ's sheep will not follow a stranger; the robber that climbeth up some other way, the thief that cometh not but for to steal and to kill and to destroy, will not draw away the true lambs of the flock known to the Good Shepherd.

The rest, all the rest, will receive him who com-

eth in his own name, because they rejected him that came in his Father's name (John v. 43). We may preach repentance and salvation now, but the night cometh when no man can work. Then there will be no repentance, no salvation, the door will be shut. All will be included in unbelief, judicial blindness, compelled to believe a lie, that they may be damned who believed not the truth, but had pleasure in unrighteousness. (2 Thess. ii. 11, 12). This is the reason of the strange order of the words, "the morning cometh and also the night." This is not the night of ordinary death.

Men have died in all ages, but when has a whole generation been cut off at once, except in Noah's day? So shall it be again. We are now in the morning when "men run to and fro and knowledge is increased." The night cometh. The world's door stands wide open. The angel of the everlasting Gospel is entering in to give a rapid final witness. It is but a witness, not a harvest. It is still light, but the shades of evening are gathering in the distant horizon. All speak of the "coming man." You hear it in the vulgar corrupt speech of the day, in office, bar and pulpit. It is Christ's title, how few think of it! "Ho erchomenos," translated "He who is to come," should be rendered the "coming one." But this modern phrase refers unconsciously to John's mysterious personage, called by him "Anti-Christ," and by Paul the "lawless one."

Secondarily, the phrase "coming one" refers likewise unconsciously to the second coming of our Lord in vengeance and in power to take his kingdom, since he refused ages ago to take the kingdoms—divided power—that Satan offered him. But the second will not come till the first be manifested. Paul says so (2 Thess. ii. 3). The "falling away" is now, the breaking up of monarchies, the advent of temporay republics, the reign of doubt and confusion and apprehension. The spread of infidelity, through the freedom of conscience, now general in Catholic countries, the rapid propagation of spiritualism in Europe, are signs of the falling away in the moral world. All these elements will be crystallized into a system. No more parties, no sects nor creeds then. John anticipated the day when church names cease to indicate evangelical distinctions. Read 1 John 4, and read it carefully. The world understands union. They tried it at Babel and were confounded. They will try it again and will effect it ; will seal it with a "mark."

That system too will evolve its man, that man will have his miracle-working priest. The Balak and Balaam of that day will be a success. Scripture is full of this. You may spiritualize it, you may gloss it over, but the world moves on toward the great day. All who believe, in time will be saved. Not one of the elect will fall away under the "lawless one's" power. But for the elects' sake, the time will be shortened. Still, it will be long enough to destroy

the ungodly, and to purge the earth from unrighteousness.

The parallel of Noachic days is now. It is a tremendous hour. Forces and tendencies are at work which will culminate in startling events. All the more startling because naturally and gradually evolved. A snare! a snare! Rome is falling, but Christ is not entering in to take her place. He will by and by, but not through your efforts, nor mine.

“ Little children, it is the last time.”

W. I. KNAPP.

MADRID (SPAIN).

March 30, 1873.

THE FACT OF HISTORY;

OR

THE DELUGE CRITICALLY EXAMINED.

PART I.

PRELIMINARY CHRONOLOGICAL OUTLINE

From Creation to the XVIII. Dynasty.

*“For as the days of Noah so will be the Presence
(παρουσία) of the Son of Man.”*

Matt. xxiv. 37.

*“As it was in the days of Noah so will it also be in
the days of the Son of Man.”*

Luke xvii. 26.

THE FACT OF HISTORY.

CHRONOLOGICAL INTRODUCTION.

WE have founded the present Series of Studies as to the Origin and Destiny of Our Race, upon the irrefragible principle that the only basis of *reliable* History is an *accurate* "Chronological System," and that to be reliable such a Chronological System must *square* itself with all the demands of *Pure* "Astronomy."

Thus there can be *but one true* measure of "Past Time," in an Astro-Chronologico-Historical sense.

Tried against this logical standard one system after another has been demonstrated false. The only one that comes anywhere near fulfilling the requisite conditions is familiarly known as Bishop Usher's (which is founded on the Hebrew Version of the Bible, and), whose only error, in so far as *system* is concerned, was the assumption that the Nativity of Our Saviour was four years after, *instead of four years before* the commonly quoted 4000 A. M.

Bishop Usher's date for the Creation is 4004 B. C. ; it should have been 3996 B. C. Allow Bishop Usher these eight years and the *length* of his "line," is absolutely correct ; but for want of a Scientific

System—each part of which was related to all the rest—he could not adjust some few, more or less isolated, Biblical dates.

The fault was not in the Bible, it was in the data at Usher's disposal; but after all his work is a monument of *faith*, and ninety per cent. of his B. C. dates are reliable if we deduct eight years from them. In this case the resulting B. C. date deducted from 3996 will give the accurate A. M. (*i. e. Anno Mundi*) year.

Now it is clearly "Providential" that Usher's system has been given the *precedence* in our English Bibles, upon whose margins his dates will generally be found. It is thus within the easy reach of the bulk of Our Race, nor have they misunderstood Chronology, in so far as its *essential* Historic and Prophetic basis is concerned, beyond this slight error arising from the controversy as to the "Nativity."

But even this is rectified, in the Common Version, in so far as the Marginal Chronology of the *New Testament* is concerned, and hence the "poor in spirit," and the humble "searchers" of the Word have never been suffered to err beyond an octat, or at all, if at all learned in worldly education.

The true system of Chronology, avoids B. C. and A. D. dates altogether and writes its notes against a straight sequence of A. M. years. Thus Sept. 23d, 1891 A. D. is in reality the New Year's day of 5890 A. M., or if we wish to drop the 4000 is only the beginning of 1890 upon the *true* A. D. scale!

As to the cycles involved in this "straight

sequence of years " we may mention the following : The Antediluvian Cycle of seven years, upon which the days of the week repeat. The Lunar or Metonic Cycle of 19 years (235 lunations), after which the moon is new in practically the same position : The *Combination* of these two cycles, $7 \times 19 = 133$ years, after which the Moon's phases fall upon the same days of the year : The Ancient Hebrew Solar cycle of fifteen years, still in use among the Jews : The combination of this and the Antediluvian Septenary Cycle, *i. e.* $7 \times 15 = 105$ years, by means of which the two cycles come down to the present day. Thus Sept. 1893 A. D. will be the beginning of 5892 A. M., and of a fifteen year cycle, but only the 75th year of the 40th 105-year cycle since 1722 A. M., when the fifteen year cycle began. We have also the common Lunar Cycle of 19×15 years = 285 years, which proves that the " week " has never been broken : The Eclipse Cycle of eighteen years and eleven days after which the same Eclipse recurs : The Greater Eclipse Cycle of eighteen times this (three-hundred and twenty-five, and three hundred and twenty-six years alternately), or six hundred and fifty-one years as a total ; and the Maximum Eclipse Cycle of eighteen greater ones, 5860 years. For instance, the Second Maximum Eclipse Cycle began with 5860 A. M. on January 11th, 1861, when the first eclipse seen by Adam was repeated under exactly similar circumstances.

Then there are other invaluable Cycles which

conspire to the same accurate Chronological ends. Thus the eight transits of Venus recur in serial order every 486 years; the last was on December 6, 1882 (5882 A. M.) and was the second transit of the thirteenth team since the first in 41 A. M. In a similar manner the date of Creation is proved by the transits of Mercury; the last occurred on May 9th, 1891, it was the first transit of the sixth-fifth team (of fifteen in ninety-two years) and repeated that of the first Thursday in May of the year 1 A. M.*

All of these cycles are rigidly linked together by the laws of Astronomy; we can verify a "record" as to any one, by a reference to the others, if they agree the record is correct; if they disagree the record is false,—an interpolation and unwarranted. In this way, for instance, it can be proved that Hales' system of Chronology, and that of the Septuagint, are not worth the paper upon which they are written.

With these preliminary remarks we are ready to commence our task of rectifying the Chronology of Our Race and we shall commence the task where Moses did, nor, until an accurate *Historical record* of a *pre-Adamic* people, with all the essential elements of Chronological sequence is produced, shall we find any occasion to go elsewhere.

As Sebastian C. Adams remarks in his Synchronological Chart of History: "Adam is the first man found in any history, monument or inscription whose *name*, the *time* of his creation, and *death*, are

**Vide* Appendix M.

matters of record, and from whom his descendants can be *traced* by *name* and *age* in successive lines for nearly 4000 years"—*we* say for more than 5890 years or to the present time. "If any critic has historical information of any person and people that antedate those given, having all these specified *data*, it will be most thankfully received and properly considered in subsequent editions of this work."

SECTION I.

THE CREATION.

"IN the BEGINNING God *created* the Heaven and the earth."

There is nothing older than this act, save God Himself, and all the elements of this Earth are coeval with this original act of Genesis. *When* it took place is a matter that does not concern us, nor is it specified by the Spirit of Inspiration. Geologists are welcome to their judgment in these premises, in so far as they do not antagonize the Word of God. We believe that this opening sentence refers to facts long before the birth of Adamic *Time*, and, so far as we know, may comprehend eons upon eons during which the universe was fabricated and refabricated world without end.

But at length there came a time when "an age" ended.

“And the earth was without form, and void, and darkness was upon the face of the deep.”

We are now at the dawn of the Mosaic Creation (or refabrication?) of the Earth, the Beginning of “Time” in so far as Adam’s race is concerned.

“And the Spirit of God moved upon the face of the waters.”—Gen. i. 1-3.

Kurtz, in *Bibel-u-Astronomic*, points out that between the first and second, and between the second and third verses of the Biblical history of the Creation, revelation leaves two great white pages, on which human science may write what it will, in order to fill up the blanks of Natural History, which revelation omitted to supply, as not being its office. The sacred Oracles are like their Author, perfect. 2 Tim. iii. 16.

The date given in the English Bible and by Usher, Blair and some others is 4004 B. C. There are about 140 different dates assigned to Creation, varying from 3616 to 6984 B. C. Dr. Hales gives 5411 B. C.

SECTION II.

THE FIRST WEEK OF GENESIS.

o A. M. 3996 B. C.

SUNDAY, 1st Day, 1st Month, 1st Year, Soli-Lunar. The conjunction being in Autumnal equinox.

“Let there be Light.”

The Rotation of the Earth commences with this command in so far as Adam's record is concerned; and this is the Mosaic Creation, or the refabrication of the Earth, *i. e.* the dawn of the “Adamic Age.” The light was everywhere,—wherever the Spirit of God moved,—and everywhere motion awoke in response to that which moved.—Gen. i. 3–5.

MONDAY, 2d Day. The firmament created to divide the waters—those above it being gathered into a System of “Saturnian Rings” (the last *visible* one of which fell at the Deluge!) and those below it being swathed, as a garment, around the whole terrestrial sphere. The world, as we know it, was then unborn, and lay as it were simply conceived in the womb—still it had “quickened” and its time had come.—Gen. i. 6–8.

TUESDAY, 3d Day. The Dry land appears out of the midst of a single sea, the fountains whereof were sealed up. The great bulk of the terrestrial

waters were thenceforth undoubtedly subterranean, filling the caverns which were created below by this very lifting up of the dry land as though on arches:

Where wert thou, who disputeth Moses, when these foundations of the earth were laid? These subterranean waters were reserved against a day of need then future but foreseen, and which marks the Deluge. In the depths still further down are yet reserved the fires locked in against a day still future!

[It is highly probable that the loftest Ring *still* remains in its now nearly unstable position—The meteoric one from which come our aerolites and shooting stars—The fall of this ring will assist the fires referred to as *reserved* “below” because every aerolite will take fire as it enters our atmosphere!]

In this day was the vegetable kingdom created, each genus in its own order, the evolutionary theory to the contrary notwithstanding.—Gen. i. 9–13.

The spores of all things that are, or have been, or are yet to be, were created by God’s original act “in the beginning,” they “generate” spontaneously when the *conditions* are favorable. For instance, in the “day” under consideration the conditions became favorable for the generation of *vegetation*, and according to Genesis and Saint John the Word then became manifest in that special form. From age to age the same process continues, for God has not ceased to work (John v. 4) in spite of many Sabbaths.

WEDNESDAY, 4th Day. The Sun and the Moon "made"—The Light wrapped about the former, reflected from the latter, and shining directly upon the Earth.

"He made the Stars also."

Now he "set" the ruling lights in the Ecliptic upon this day, gave them their special orbits, and so let them be "for signs and for Seasons, and for days, and for years."—Gen. i. 14-19.

THURSDAY, 5th Day. Fish and Fowl created, each after its own kind.—Gen. i. 20-23.

FRIDAY, 6th Day. In the womb of the evening the Animal Kingdom is completed without evolution. Adam also is "formed," in his Maker's "Image," receives the breath of "lives," and becomes a *living* soul—but certainly not an immortal one! (Gen. ii. 17.)* In the womb of the morning Eden is planted, man placed there to dress it under a single prohibition, creation is *reviewed* before him, and he names the living creatures. But there was no help found meet for Adam. And he slept. Eve is now taken out of him to be returned unto him as his eternal complement. She is made in

* Had no Saviour appeared to rescue Adam and his posterity from the penalty incurred where would the doctrine of inherent "*immortality*" have been? Eve accepted the word of Satan against that of God, and had Jehovah left the sinful earth to its fate the record implies that in due time the human race would have become *extinct*, as such, and in every sense. This certainly is the logic of Theology and the theology of Logic!

“the likeness” of Jehovah, and Adam names her “Isha” his own name being “Ish.” This was the “first man.” (The name of the Second is I H S—that of *His* “Bride” is yet to be announced, she being still hidden in the counsel of Jehovah.) There are many types of this Bride, for instance the Church, the New Jerusalem, the Elect, etc., but who hath knowledge of the *Archetype*?

So God blessed them, and gave them “dominion” and “saw everything that He had made, and, behold it was very good, and the evening and the morning were the Sixth Day.”—Gen. i. 24-31.

Amen.

SABBATH, 7th Day. “And God ended His work which he had made, and God blessed the Seventh Day and sanctified it because that in it he had rested.”—Gen. ii. 1-3.

End of the First “Week.”

Chronology is agreeable to the fact that these “days” were severally of twenty-four hours each, because the “cycles,” as they now run, reverse through them without error. Nevertheless Chronology is also agreeable to the *possibility* that they may have been “ages” of such a Soli-lunar *septenary* character as shall have harmonized the same cycles. In either case the motions of the time-keeping orbs reverse through them *seriatim*, and strike their first literal days, one after another, back to the original Sunday, or First day of Mosaic

Time. The Scriptures call them "ages" and we in common parlance translate them correctly as "days." There are six of them, and a seventh, even in Geology!

If they were "eons" then this creative week—so called—was of vast duration, and Adam and Eve lived in Beatitude throughout its Sabbath. "Time" in this case—*i. e.* the years of the genealogies—begins with its end, *i. e.* with the *Sunday* with which the succeeding *literal week* commenced. And in either case the Sun and Moon were respectively four "days" from their ecliptic emplacements, (*vide* Wednesday) on the fourth day and these emplacements were originally such as to record the *preceding* three days since the birth of Light.

There was no *rain* in these days, "but there went up a mist from the earth and watered the WHOLE face of the ground." (Gen. ii. 5-6.) Thus the constitution of the antediluvian world was very different from ours. (2 Pet. iii. 6.) No "rainbows" were possible, nor did it ever "rain" until the deluge (Gen. vii. 4.) The fall of the "great deep" from above the firmament, and the breaking up of the fountains from below the foundations, altered these conditions. Rain thereafter became as natural as beforehand it had been impossible. The Mosaic account is thus consistent with itself, and with the physical constitution of the universe as we understand it. But of this more anon.

For 1656 full Solar years the constancy of

nature was as legitimately predicted as it is now,—and just as illegitimately! for like as those who scoffed at Noah, so now do men deride the prophecies of a cataclysm even greater. (2 Pet. iii. 7.)

“All things continue as at the beginning:”—even so, but chiefly man’s own disbelief in God!

How long Adam and Eve remained in Paradise we see no means of determining at present. There are traditions, however, among the Hebrews upon this matter, and from the wonderful way in which the Sacred record supplies all necessary data we doubt not that the key to every essential Chronological question is latent in the Word of God. It is our own belief that Sunday, the first day that succeeded God’s Rest and Special blessing witnessed “the Fall”—early in the morning thereof; that in the heat of that day the guilty pair were detected, and that ere its Sun had set the Expulsion was effected, (*vide* foot note, page 15).

In view also of the internal evidence afforded by the writings of Moses as a whole—their consummate Astro-Chronological harmony—we also personally believe that all the “days” of Genesis are literal days and that “*Time*” began with the command “Let there be Light.” Nevertheless, as a thousand years are as one day, and as one day is as a thousand years with God, a thousand times one thousand years will not exhaust the astronomical elasticity of the great Chronologic eras swept into view by the Inspired record.

However, these matters are not essential either to Chronology or to sound doctrine ; opinion there-upon may vary throughout the gamut. But of one thing we are certain—The “Years of the Genealogies” commence with the Creation of the Man “Adam,” and the Chronology of Moses is in harmony with testimony of the Cycles. (Gen. v.)

We shall therefore commence our survey of the “Years of the World” (Anni Mundi) with the year zero (O A. M.) which is the *first* year of Astronomical “duration” in so far as the *Chronological* interpretation of the Mosaic Record is concerned. The next, or second year of Astronomic duration is thus 1 A. M., and the 130th year of the Sequence marked the birth of Seth (Gen. v. 3). From the year 0 A. M., or 3996 B. C., we can trace the years both seriatim, and by means of several important “spans” or *bonds*. These are placed consummately, here and there, along the inspired writings as a means of verifying long intervals, and testing the accuracy of the general count when filled in.*

* We have no theory to advance. We simply follow the Record itself, and shall be able to demonstrate our case as we proceed. That is, we shall show that the Record of Moses is not only consistent, but astronomical, so well as accurate, and that it moves so surely and has been continued so carefully by the Hebrew Scribes that not a single day can possibly escape its meshes, in which Time is caught as by a net !

SECTION III.

FROM ADAM TO THE END OF THE DELUGE.

“THE YEARS OF THE GENERATIONS.”

0 A. M. 3996 B. C.

First Eclipse. Solar, No. 1 of Regular Team, on Friday,* 1st day of the 4th Lunar Month (Brit. Chron. Assoc.). 0 A. M. here stands for 1st year of Astronomical *Duration*. The Astronomic count is always 1 greater than the Chronological.

1 A. M. 3995 B. C.

First Transit of Mercury, in descending node 8th Month (Brit. Chron. Assoc.), 1st Thursday in May.*

41 A. M. 3955 B. C.

First transit of Venus. Ascending node, 3d Month early. (Brit. Chron. Assoc.)

125 A. M. 3871 B. C.

Death of Abel. At the end of the Intercalary days of the cycle preceding Seth's birth. (Gen. iv. 3.)

130 A. M. 3866 B. C.

Seth born. Gen. v. 3.

235 A. M. 3761 B. C.

Enos born. Gen. v. 6.

* Rather the day previous.—C. A. L. T.

238 A. M. 3758 B. C.

“Then began men to call upon the NAME (HVHJ = 5651) of the Lord.” (Gen. iv. 26).

325 A. M. 3671 B. C.

Cainan born. Gen. v. 9.

395 A. M. 3601 B. C.

Mahalaleel born. Gen. v. 12.

460 A. M. 3536 B. C.

Jared born. Gen. v. 15.

622 A. M. 3374 B. C.

Enoch born. Gen. v. 18.

687 A. M. 3309 B. C.

Methuselah born. Gen. v. 21.

874 A. M. 3122 B. C.

Lamech born. Gen. v. 25.

930 A. M. 3066 B. C.

Adam ^I* dies, (End of year 929, beginning of 930.) The High Priesthood passes to Seth ^{II}. (It was Cain's birthright but he had become disquali-

* These small Roman numerals are here introduced and will be followed from now on to indicate the absolute and lineal succession of the Patriarchal “High priesthood,” or “order of Melchizedek.”

fied—A Murderer and an Outcast). Adam thus lived short of 1000 years—"one day." Hence in the day that he sinned even in it did he incur the penalty.

986 A. M. 3010 B. C.

Enoch translated. 365 years old [*i. e.* $(365 +) \times 365$, *days* old.] The Chronological beauties hidden in this date (986 A. M.) are of a most remarkable character. All Pyramid students are familiar with the intimate relations between π (the circummetric ratio $3.14159 +$ etc.) and y (the year function in days $365.2422 +$ etc.). Now the year of Enoch's translation is not only his 365th, but it is intimately related to the circummetric ratio. Thus $10^2 \times (3.14159+)^2 = (10 \pi)^2 = 986-7$ *vide* Haswell, Trautwine, etc. *i. e.* lies between 986 and 987! 986 A. M. 987 Ast. *True* Biblical Chronology is loaded with similar rhythms.

1000 A. M. 2996 B. C.

Around about this date as the centre of an era of several hundred years, vast meteoric falls of matter from the inner rings above the firmament blighted the earth with a curse. The chalk and flint formations may be traced to *this* cause. Sterility followed these dreadful deposits, and the Antediluvians got no comfort concerning their work and the toil of their hands until Lamech's prophetic foresight discovered it in the birth of Noah. For a

complete discussion of this question *vide* Galloway's "Science and Geology, in relation to the Universal Deluge." London, 1888.

1042 A. M. 2954 B. C.

Seth^{II} died. The High Priesthood passes to Enos^{III}.

1056 A. M. 2940 B. C.

Noah born. Gen. v. 28. Lamech's consolation. Gen. v. 29.)

1140 A. M. 2856 B. C.

Enos^{III} died. The High Priesthood passes to Cainan^{IV}.

1235 A. M. 2761 B. C.

Cainan^{IV} died. The High Priesthood passes to Mahalaleel^V.

1290 A. M. 2706 B. C.

Mahalaleel^V died. The High Priesthood passes to Jared^{VI}.

1422 A. M. 2574 B. C.

Jared^{VI} died. The High Priesthood passes by default to Methuselah^{VII}. (N. B.—That is it would have gone to Enoch. But he was not, for God had taken him.)

1536 A. M. 2460 B. C.

Appointment of the Flood made known to Noah, Saturday, 17th of 2d month. Obtained by falling on the "selfsame day" of the week and date of the month, 120 Years before Noah entered the ark. See Gen. vi. 3 and vii. 13, and 5th year of the Antediluvian Solar Cycle. A splendid confirmation of history and the cycle.

1556 A. M. 2440 B. C.

Japheth born. Gen. v. 32, x. 21.

1557 A. M. 2439 B. C.

Ham born. Between Japheth and Shem.

1558 A. M. 2438 B. C.

Shem born. (Compare Gen. v. 32 and x. 21.)

1650 A. M. 2346 B. C.

Lamech dies at the *end* of year, (or as commonly put, in 1651 A. M. *i. e.* at *its* beginning). He thus died before his father, and so never came to the High Priesthood. He lived 777 years.

1653 A. M. 2343 B. C.

The end of this year and the beginning of the next, 1654 A. M., *i. e.* New Year's Day, marks the middle point of time between the Creation of Adam and the Loss of Our Race, 3306 A. M., *i. e.* the date

of the Captivity of "Israel." $1653 \times 2 = 3306$.
Vide Study No. 2, page 150.

1655 A. M. 2341. B. C.

Methuselah ^{vii} dies late in the year. Jewish writers say that Methuselah died seven days before the Flood. Chronology places the event about fifty-two or three days before the Flood or about a week before the Flood year. The High Priesthood thus passed to Noah, who therefore became the VIIIth "Preacher of Righteousness." (2 Pet. ii. 5.) Methuselah was born in 687 A. M. early in the year, which counts as 1 in his 968, hence 1655 to its end must count as the 968th year of his life.

1656 A. M. 2340 B. C.

Japheth one hundred years old. The year of the Flood.

This year, in so far as "the Genealogies" are concerned, commenced, Lunar-wise, about forty-six days before the true Solar Autumnal Equinox. That is, it was running somewhat over one month and sixteen days before the Actual Solar year commenced. This was the "epact" then due, but not yet intercalated in the cycle, all of which will be explained in its proper place.

The Flood began on Saturday, the seventeenth day of the second month, Solar New Year's day *i. e.* Autumnal Equinox, *at the instant* thereof!

As it lasted until the 27th day of the *same* month

in the *next* year of Noah's life, it is commonly considered to have been 1 year and 10 or 11 days long, but we should remember that these years are *lunar*, 354 days each. Hence the entire duration of the deluge Calendar is 365 days in round numbers without further calculation—a full solar year, the which we are going to prove was *exact*, and in its *exact* place!

N. B.—The Great Deep broke up at ten o'clock P. M. while they were all “feasting and drinking.” That is actually upon Solar New Year's Eve, or just before its Autumnal Equinoxial instant. It fell for 12^{M.} 25^{S.} + and first struck the firmament *at* New Year's instant. At this same moment the fountains of the waters which were below the earth were also broken up, and, under the influence of gravity, they gushed forth, as from a womb, to meet the oceans falling from above. An earthquake of the most gigantic description must have accompanied this terrible cataclysm, and assisted in belching forth the internal waters.

These two bodies of water, the one from above and the other from below, were the same that in the Beginning had covered the face of the whole earth—before the dry land appeared. Wherein then is the difficulty of accounting for this reimmersion—this baptism against another birth? If there was water enough at the *first* to accomplish this end there was certainly enough to *repeat* it! and the Mosaic account is again consistent with itself. Nor should we forget that *water*, pure and simple,

not only forms $\frac{4}{5}$ ths of the visible superficies of the earth, but is precisely that compound element which, of all others so far as science knows, is the most common. If every organic and inorganic substance gave up its water, and—

E'en the diamond has a drop of dew.

The highest mountains would be submerged at this instant! However we are discussing a "record," and are principally interested in it as Chronologists. We leave the other lines upon which the Deluge may be demonstrated to successors who have both "faith" *and knowledge in the premises!*

The cataclysm was undoubtedly accompanied by, (or rather *brought about*), a sudden change of inclination in the earth's axis, amounting to $18\frac{1}{2}^{\circ}$. The original axis was perpendicular to the moon's orbit (now, as then, inclined but 5° to the ecliptic); the new axis is inclined $23\frac{1}{2}^{\circ}$ to the ecliptic.

The interior *nucleus* of the earth (*i. e.* the denser metallic core which is sunk below the quicksilver sea upon which the outer crust rests) still retains the *original* rotation, and *its* poles are those of the Magnetic meridians. For a full discussion of this question *vide* Galloway's "Science and Geology in Relation to the Universal Deluge," Sampson Low, London, 1888. This change in the earth's axis is considered by Dr. Galloway as enough to have brought about all the Glacial and Diluvian results, but the agency of this change must itself be introduced if we are to discuss the matter to its legiti-

mate end on purely natural lines. The fall of the "Saturnian Rings" does this, and the cause of that fall was either their natural contraction beyond the stable limit, or their sudden rupture by a "wandering star." The fact is we "men," even such as have attained to scientific stature, are but pigmies in these premises and before we scout the evidence of facts and history and legitimate conjecture it would be well to read once more the book of Job (xxxviii. etc.).*

RECAPITULATION.

Seth	was born when Adam	was 130 years old.
Enos	"	Seth " 105 "
Cainan	"	Enos " 90 "
Mahalaleel	"	Cainan " 70 "
Jared	"	Mahalaleel " 65 "
Enoch	"	Jared " 162 "
Methuselah	"	Enoch " 65 "
Lamech	"	Methuselah " 187 "
Noah	"	Lamech " 182 "

Gen. vii. 11. The flood came when

Noah† was 600 "

vide Gen. v.

Total 1656

N. B.—The exit from the ark was 1 year later.

1657

* Oct. 24th, 1891. See Appendix C.

† Noah was "perfect in his generations," *i. e.* his years ran with the Calendar. By it he was 600 lunar years old on Sunday, the 6th

SECTION IV.

EXIT FROM THE ARK TO THE DEATH OF TERAH.

1657 A. M. 2339 B. C.

The Earth was dry on Saturday, the 27th day of the 2d month, and with its "morning's" end (*i. e.* with the sunset which marked the beginning of Sunday the 28th,) the Flood year nominally ended. It was not, however, until 1m. 16s. past 4 a. m. on Sunday the 28th day of this 2d month that the Sun was actually at the Equinoctial point. It was then that the "*door*" of the Ark was opened by Him who had shut it. This "first day of the week"—our Sunday,—was Exit day! and the instant coincided with the "Skreig o' day."

We now quote the following summary from the works of the "British Chronological Association," to which we are greatly indebted for some of our data herein recomputed and arranged into a consecutive digest: and the general accuracy of which it is our purpose to verify. In some cases (merely ones of judgment, however) it will be noticed that we differ (*vide* Almanac pp 125 to 222).

day of the 1st month, 1656, but by "epact" and "intercalation" was not 600 *Solar* years old until Thursday, the 22d day of the 2d month, the moon being new, *i. e.* in her first day. This was the 6th day of the Flood.

The flood lasted one *exact* Solar year, from Autumnal Equinox to Autumnal Equinox, and they fell upon Sabbath days.

See Almanac, Pages 125-222.

DATES OF THE SABBATH DAYS DURING THE DELUGE.

1656 A. M., or 2340 B. C.

By J. B. DIMBLEBY, Lecturer on Biblical Chronology, and the Discoverer of the form and length of the Ancient Year. Also Discoverer of the Antediluvian and Ancient Hebrew Solar Cycles, and first enumerator of all the Eclipses before Christ.

The lunar year 1656, (the flood year) began with the 3d day of the week, (Tuesday) hence the 5th of the month would be the first Sabbath Day, (Saturday) of that year. To prove this, see 1st month of "Antediluvian Almanac for 1656," and compare it with the 5th year of the "Solar Cycle of the Antediluvians," which was the Flood year.* The dates of this 5th year are the natural succession of 7th days from the 1st year of the Cycle, in writing out which we unconsciously enumerate nine dates of the flood derived from the 7th day in the 1st year, by regularly assigning 30 and 29 days alternately to

<p>The Solar Period of 365 days, from <i>b</i> to <i>i</i>, see Gen. vii. 11, and viii. 14, the time Noah was in the ark.</p>	1st month....5 12 19 26				<p>The LUNAR YEAR of 354 days, and distinguished from the Solar Period by divisions of months, weeks, and days.</p>	
	2nd " 3	10 ^a	17 ^b	24		
	3rd " 2	9	16	23		30
	4th " 7	14	21	28		
	5th " 6	13	20	27		
	6th " 4	11	18	25		
	7th " 3	10	17 ^c	24		
	8th " 1	8	15	22		29 ^d
	9th " 7	14	21	28		
	10th " 5	12	19	26		
	11th " 4	11 ^e	18 ^f	25 ^g		
	12th " 2	9	16	23		
<p>The year ended on the 6th day of the week.</p>						
<p>Part of Year 1657, Noah's 601st.</p>						
1st month....1 ^h	8	15	22	29		
2d " 6	13	20	27 ⁱ	Exit on the 28th.		

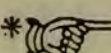
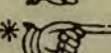
* See page 55 for Calendar of the entire Cycle.

the months. As the dates all come round again on the same day of the week after seven years, 1656 must be the 5th year of the Cycle, and the 5th day of the month the Sabbath Day in a direct line from the first Sabbath in Eden shown in Creation year.

REFERENCES:—*a* Genesis vii. 1 with 4; *b* vii. 11; *c* viii. 4; *d* viii. 3; *e* viii. 6; *f* viii. 10; *g* viii. 12; *h* viii. 13, New Year's Day (lunar) and Sabbath Day; *i* viii. 14, earth all dried, end of solar period of 365 days, and Noah leaves the ark the next day.

The above nine Sabbath Days come down in unbroken weeks from the creation of man and the first Sabbath in Eden, the 1st day of that week being a triple alliance—the lunar year of 354, the solar period of 365 days, and astronomical lunar cycle all starting together 1656 solar years before the flood—a splendid and marvellous event and a great scientific fact, verified by all the eclipses.

Example of the commencement of the Solar Year during Seven Years, after which the Years again repeated their Dates.

1	In 1652	the solar period began on the 1st day of the 1st month.	
2	In 1653	“ 12th	“ “
3	In 1654	“ 24th	“ “
4	In 1655	“ 6th day of the 2d month.	
5	In 1656 (Flood)	*  17th	Gen. vii. 11
6	In 1657	*  28th	Gen. viii. 14
7	In 1658	“ 10th day of the 3d month.	

* It is particularly through the *last* (and for that matter all) of these dates that we intend to drive the *Scientific Spike* referred to in the title of this Study. The British Chronological Association have discovered a Calendar which fits the case, and all the other dates in the Bible, *we shall show that the Calendar is Astronomical*.

The Intercalary Days required to make the solar period again begin with the lunar year would be 77, or 11 weeks introduced at the end of each seventh lunar year, and without interfering with the regular succession of the Sabbath day. (See Antediluvian Solar Cycle, page 55.)

The lunar year is more scientific than the solar year. It is strictly governed by the motions of the moon, which by revolving round the earth in $29\frac{1}{2}$ days, requires that the months should alternately possess 30 and 29 days, to keep up with her 12 monthly revolutions. Counted in this way, it will be seen that the dates above given are 7th days. Thus: 5 and 7 are 12, as shewn in the 1st month. As there are 4 left after the 7th day, 26th, 3 more days in the second month must be the next 7th or Sabbath day. At the end of the 2d month (which has 29 days) there are 5 days left, and therefore 2 more days in the 3d month must be Sabbath day again.

1658 A. M. 2338 B. C.

Arphaxad born. Gen. xi. 10. The day and month may be determined (17th day of 2d month) the year only is necessary for the Chronological count.

1693 A. M. 2303 B. C.

Salah born. Gen. xi. 12.

1721 A. M. 2275 B. C.

Last year of the Antediluvian or most ancient calendar, being the end of its 246th cycle. ($246 \times 7 = 1722$ Astron. = 1721 A. M. or "Past time." 25827 years = the Cycle of the Pleiades, or Precession of the Equinoxes (See appendix G). $\frac{1}{15}$ th of this cycle

is 1721.8 years. This is the length of the Antediluvian Calendric Cycle. During it the solar year gains as many Lunar years over a Lunar year as there are weeks in a solar year. In a full Pleiadic Cycle the gain is fifteen times as much, and in two such cycles it is thirty times or a month of gains. Why those who came over the Deluge found it necessary or convenient to adopt a new cycle is no part of our present investigation. That they did so an analysis of the Bible proves. It was probably owing to Metrological considerations incident upon the Noahic calculations which resulted in the Pyramid Cosmogony. But it is not to be supposed that this change of System was a condemnation of the original or Antediluvian Calendar. It was simply a change for convenience just as we employ a 28 year solar cycle while the Jews retain a 15 year calendar.

1722 A. M. 2274 B. C.

First year of the ancient Hebrew Cycle (15 years Soli-Lunar). It was likewise a *first* year upon the discarded cycle of 7 years, the which runs parallel to it. All Biblical dates however are henceforth upon the latter although they may be verified by the former.

The Antediluvian Calendar ran as to its first years 1701, 1708, 1715, 1722, etc., etc., 1827, etc., etc.

The Ancient Hebrew Calendar commencing with 1722, runs as follows.

1722, 1737, 1752, 1767, 1782, 1797, 1812, 1827, etc.

It is thus clear that 1722 is a *common* year to each, also 1827. The cycle by means of which the two calendars are harmonized is 7×15 years = 105 years. 1722 was the year of transition, it being 66 years after the Flood. ($1656 + 66$). Eber, or Heber, from whom we are called Hebrews, was born in 1723 A. M. He was therefore conceived in 1722 A. M. and had Moses written all he knew, or been allowed to write all he might, we may be confident that there were special events relating to the year 1722 A. M. which were of direct Chronological import to Our Race. What they were remains yet to be authoritatively disclosed, but meanwhile the researches of the British Chronological Society have established the date 1722 A. M. as the *a quo* of the still Current Sacred Calendar.

1723 A. M. 2273.

Eber or Heber (from whom we are called Hebrews!) born. Gen. xi. 14. The foregoing change in the Calendar seems to have been made in this year, (probably to commemorate it), and was overlapped back to cover the preceding year; indeed the change to the new system may have been long subsequent to this date, even as late as 2170 B. C. or 1826 A. M. But whenever it actually occurred—even though invented by Moses himself, it was run back to cover 1722 A. M. as its initial year, and from that date down to the end of the Sacred Canon it is harmoniously employed.

The Tables given in this Study (pages 51 to 80) will afford the Bible Student the means of verifying EVERY DATE given or implied in the Scriptures.

1754 A. M. 2242 B. C.

Lunar Eclipse at Winter Solstice. No. 8, Line ii. The eclipse placed at the head of Authentic History in the Encyclopedia Britannica, *q. v.* to wit: "2234 B. C., is the alleged beginning of Chaldean Astronomical observations (it was sent by Callisthenes to Aristotle. The earliest record extant is 720 B. C.)." $2234 + 8 = 2242$. (*Vide* discussion of Usher's Chronology, page (3) but $2234 - 8 = 2226$, probably correct. See therefore 2226 A. M.

1756 A. M. 2240 B. C.

Menes, the Thinite. First Egyptian Dynasty, reigns sixty-two years. We have nothing earlier in secular history. The greatest antiquities of the British Museum are Egyptian, but they are all subsequent to the Dispersion, the earliest date for which is the Birth of Peleg to which we shall come in the succeeding year. In the meanwhile it is to be contended that Egypt is the home of the Postdiluvian generations—The Cradle of History. Thither Noah and his sons seem to have repaired immediately after the Flood, and to have employed the Century now ending not only in recuperation and replenishment, but in preparing for the next step which was

the *Division* and *Possession* of the new earth. Ever since the Deluge the most careful geodetic measurements (Peleg) of the boundaries of the new earth had been conducted and the labors were now completed. They were all consolidated into a unique Architectural plan which in due time was to be built as a monument upon the spot where these careful operations had been conducted. Until so built the plan was to be carefully stored in the Archives of the High Priest. By Noah it was transmitted to Shem, and by Shem himself was at length fully realized in the Great Pyramid of Gizeh—"the wise man's house," built of stone and founded upon rock, and into it the whole of cosmic knowledge was buried in a perfect rhythm. Those who feel drawn to verify this statement are referred to Prof. C. Piazzzi Smyth's works upon the great Pyramid, to John Taylor's, to the Publications of the International Society for Preserving Anglo-Saxon Weights and Measures (Cleveland, Ohio) and to my own work on Metrology *vide* advertisement—"An Important Question"—at the close of any of these Studies. Blair puts the building of Memphis by Mizraim, 2188 B. C. This on the true Chronology would be $2188-8=2180$ B. C. or but 10 earlier than 2170 B. C. (*i. e.* 1826 A. M. *q. v.*)

1757 A. M. 2239 B. C.

The time had now come for God to call his sons "out of Egypt" *for the first time!* And so the

fiat now went forth to separate. Up to this time, and under the Patriarchate of Noah, all the earth was dwelling in Saturnian Simplicity. This is the "Golden Age"—a brief 100 years in its entirety. In the New Year Season of this year *Peleg* was born, Gen. xi. 16, and was named from the events now set in operation. "In his days was the earth *divided*." His "days" extend from 1757 A. M. to 1996 A. M.,—239 years and the *division* refers to two distinct things. In the first place to the official division of the earth among the sons of Adam which took date from his birth and is explicitly referred to by Moses in his final words (Deut. xxxii. 8). In the second place the *Division* refers to the gigantic earthquake (*circa* 1995 A. M., the last year of Peleg's life) by means of which "Atlantis" disappeared. Up to that *time* (1995 A. M.) the human race might have spread easily over both hemispheres.

Before the "*division*," communication was direct from Egypt to Atlantis, and from both to Mexico and to South America, and emigration sowed the seed of men all over the terrestrial sphere. This accomplished, the earth itself was *divided* into two hemispheres, *i. e. split into two worlds*, and for a time the twain forgot each other. In the Mosaic account the matter is purposely slighted for obvious reasons, but none the less explicitly recorded in the name and birth and death, and life of *Peleg*! The division was brought about by natural law; Gravity acted on the superincumbent waters of the Flood and they

crushed in the surface of the earth, both destroying and building continents. (*Vide* Appendix—)

1770 A. M. 2226 B. C.

“And as they journeyed Eastward they came to the Plains of Shinah.” Here begins the Chaldean or Accadian Empire. (“Libraries said to have existed in Accadia seventeen centuries B. C.”—Hayden.) Leaving Ham in his Egyptian home whence to populate south and due west, the bulk of Noah’s posterity had journeyed towards the north and east—Noah and Shem and Japheth with their posterity are involved in this emigration out of Egypt. At Shinah a rebellion occurred and Nimrod (also called Izdhubah) commenced to build Babel—“A fool’s house built upon the sand,” the very antithesis of Gizeh’s prospective monument, and founded in defiance to God’s express commands.

Observation of Eclipses began at Babylon and continued until the capture of that city by Alexander the Great, in 3673 A. M. (*vide* 1754 A. M.)

1777 A. M. 2219 B. C.

The Confusion of Tongues, 120 years after the Flood and seven years from the foundation of Babel. Japheth’s group moves north and west. Noah’s east and south-east, Shem’s occupies the vicinity of Accadia, and all spread out in all directions, so that before the Atlantean earthquake, which was the final act in the drama of rebellion and con-

fusion, the world was pretty generally claimed by those to whom it had been assigned.

1787 A. M. 2209 B. C.

Reu born. Gen. xi. 18.

1796 A. M. 2200 B. C.

Earliest possible Beginning of Chinese History. The Hia. The Bamboo records: "Beyond Yao, it is generally admitted that Chinese history is fabulous."—Max Muller in the *Nineteenth Century*. Encycl. Britain Articles Chronology. (*Vide* 1826 A. M. 2170 B. C.)

1819 A. M. 2177 B. C.

Serug born. (Gen. xi. 20.)

1826 A. M. 2170 B. C.

The date monumentalized in the Great Pyramid. Usually regarded as its date of *erection*, but rather to be regarded as the *key* to its Chronology. We merely suggest, as an opinion based upon similar experiment,* that from Cosmic reasons Noah had chosen this date as the *à quo* of his geodetic calculations *in re* of the New Earth, and that the Design of the Great Pryamid was calculated with reference thereto. The monument was designed *before* and

* Our own method of procedure with reference to the Joshua and present calculations.

erected *after* this date, but was harmonized with reference *to* it.

In connection with this we are convinced that the true origin of Chinese history (*in loco*) must be fixed at about this date, *i. e.* some thirty-one years later than the one already referred to (1796 A. M. 2200 B. C). Noah (Yao), who was himself the founder of China seems to have remained in the west and to have retained the Pyramid designs in his own possession until 1826 A. M., or for forty-nine years subsequent to the Confusion. This brings us to our present position 2170 B. C.—seven weeks of years seven times counted—a jubilee—from the ruin of Nimrod's rebellious effort, and itself (astronomically) a Sabbatic year reckoning from Creation (since 1826 A. M., equals 1827 Astron. = 7×261 years).

Now in 1826 A. M. or 2170 B. C. we believe that Noah, (who was without father or mother in respect to the *new* order of things, and without beginning of days, nor end of them, in so far as his official years were then concerned) formally transferred the Antediluvian treasures and records to Shem, and, in obedience to special commands was about to go East. Shem, Arphaxad, Salah, Heber, Peleg, and Reu, were all alive, and involved in this final Patriarchal Congress, and at its close the Patriarch retired from the immediate and *de jure* exercise of his general functions. This left Shem in the *de facto* Office of High Priest—and made him likewise “without father or mother,”—and, in so far as his

new "office" was concerned it is, of course, an order forever, having neither beginning nor ending. It was merely held, by its earthly representatives, *pro tempore*—for He to whom it only appertains is the real Melchizedek!

Not earlier than this date, therefore, can we begin the origin of Chinese history, regarding Yao, (whom the Chinese say was "without father or mother,") as Noah.

1849 A. M. 2147 B. C.

Nahor born. Gen. xi. 22.

1878 A. M. 2118 B. C.

Terah born. Gen. xi. 24.

1940 A. M. 2056 B. C.

Assyria founded by Ashur. Gen. x. 11, 22.

1948 A. M. 2043 B. C.

Haran born. Gen. xi. 26-28. The elder.

1978 A. M. 2018 B. C.

Nahor born, brother of Abraham.

1995 A. M. 2001 B. C.

The Last year of Peleg's life. He lives to its termination. His death is usually recorded as 1996 A. M., but as 1757 A. M., the year of his birth counts

as 1, it is manifest that 1995 to its close counts as 239. In this year 1995 A. M., the most important Physical change that has occurred since the Deluge took place. It marked the loss of "Atlantis," accounts for many geological anomalies, and has, no doubt, given rise to many of the confusions in the Flood stories of diverse nations. It was a gigantic earthquake. Two whole continents went down, and instead of being an overflow it was in reality a subsidence into which the oceans poured. Its chief effect was to form the Atlantic and Pacific Oceans and to *lower* the general level of the sea the world around. Locally it was an engulfment—not even a flood. However, we agree with Geologists and Historians in fact, and disagree with them in definition—there may have been many Floods, but only one "*Deluge!*"

1996 A. M. 2000 B. C.

Commonly recognized date of Peleg's death. ("Cuneiform writing probably in use *circa* 2000 B. C., deciphered by Grotefend 1802 A. D."—Ency. Britannica.)

1997 A. M. 1999 B. C.

Nahor (father of Terah) dies. Gen. xi. 25.

2006 A. M. 1990 B. C.

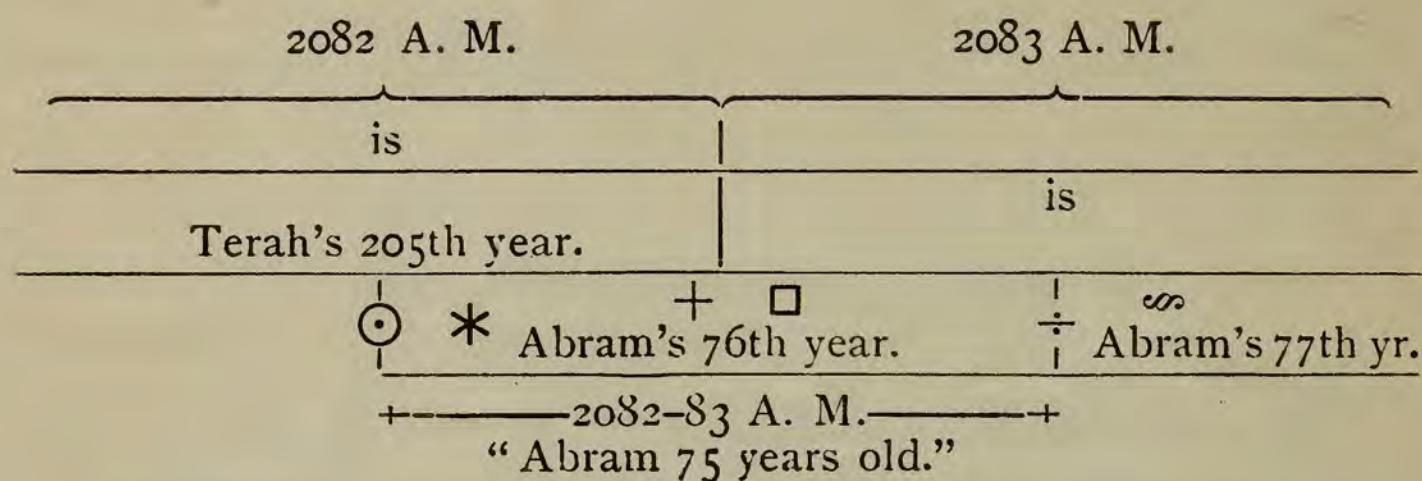
Noah^{VIII.} dies. The High Priesthood confirmed to Shem^{IX.}, a "King of Righteousness"—even Melchizedek, the Prince of Salem. Shem talked with

Methuselah about 100 years, Methuselah having known Adam for 243 years—thus the absolute records could have been passed down to the IXth High Priest without any peradventure as to error.

2007 A. M. 1989 B. C.

Abraham born. Compare Gen. xii. 4 and x. 32. Tuesday 1st day of 7th month (1989). Terah being 130 years old. This month in due time becomes the Sacred one for this and many other reasons. (See also Acts vii. 4.) The birth of Abraham, the beginning of his 75th year or his “call,” his emigration from Ur, and finally his exodus from Haran, are dates of the utmost importance to Chronologists. They are only to be discovered by a strict analysis of collateral dates, for they are not given directly on the surface of the Scriptures—The omission is undoubtedly *intentional*, and this simply because from his peculiar prominence as the “Father of the Faithful,” there was every reason to expect that his Nativity would have been specified with the utmost explicitness. But the fact is this is just what Moses does the which is patent when we come to *understand* the matter correctly. There is no break in the straight sequence of the A. M. years, the junction is formed at the 205th year of Terah and the seventy-sixth of Abraham. The former runs with the *Civil* year and the latter with the *Sacred* year,

they overlap by exactly one common half year thus:



Abram's years do *not* run with the years of Adam, *i. e.* with the civil or A. M. count, but form the first exception to the rule met with in the Scriptures. The years of Isaac and Jacob also run with those of Abraham, and from thence (Abram) down to the present time the Hebrews have kept Chronology upon two scales, the one Civil which backs up to Father Adam, and the other Sacred which backs up to the Exodus, and to "Father Abraham," *i. e.* to the "Call" in Ur, aye even to his birth on Tuesday the 1st day of 2007 A. M., just 5 complete cycles before "the Call." The Book of the Generations of Shem (Gen. xi. 10-26) terminates with a sentence (verse 26) exactly like that (verse 30) which terminates the Book of Generations of Adam (Gen. v. 1-32.) In both cases we reach the eldest son only, *i. e.* Japheth and Haran respectively—*not* Shem and

⊙ "The Call."

+ Terah dies.

÷ Abram at the borders of Egypt.

* The Exit from Ur.

□ Abram and Lot leave Haran.

∞ The Covenant renewed.

Abram whose years are purposely fixed in other ways! (*vide* Appendix O).

2018 A. M. 1978 B. C.

Amenemha I. Reigns 16 years. XII. Dynasty of Egypt begins.

2026 A. M. 1970 B. C.

Reu dies. Gen. xi. 21.

2033 A. M. 1963 B. C.

Hebron built by Set Shalt or Salatis, King of the Hyksos. They were a Shemitic people followed by a train of Hittites and Phœnicians, migrating southwards, and at length, having entered Egypt quietly, they set up an independent empire. (Usher puts this Phœnician invasion at 2080 B. C. and makes it the origin of the Hyksos rule of 260 years; our date is proved however, by the monuments).

2034 A. M. 1962 B. C.

Usertisen I. XII. Dynasty of Egypt. Reigns 32 years.

2040 A. M. 1956 B. C.

Zoan, Tanais, or Tanis, founded and built, by the Hyksos under "Salatis" or "Set-aa-pehti-neb-ti" the first of their kings. This is the initial year of

the "SET era", and is believed to run with "the years of the king" which seem to have run with the sacred year adopted later by Moses. From "*Set-neb-pehti*" to *Ra-neb-pehti* 194½ years. And from *Ra-neb-pehti*, to Set-i I. (Mi-neptah I.) who was the son of Ra *men* pehti, (or Rameses I.) 194½ years. And from *Set-neb-pet* to Miamen who is Rameses II. 400 years according to the Tablets.

2049 A. M. 1947 B. C.

Serug dies. Gen. xi. 23.

2066 A. M. 1930 B. C.

Amenemha II. XII. Dynasty. Reigns 6 years.

2072 A. M. 1924 B. C.

Usertesen II. XII. Dynasty. Reigns 18 years.

2081 A. M. 1915 B. C.

Haran dies, 133 years old. Gen. xi. 28.

2082 A. M. 1914 B. C.

Abram's 75th birthday, Tuesday, 1st day, 7th month. The Summons, or "Call" undoubtedly occurred on THIS day. In a fortnight he was ready to leave, and *left* Ur upon Tuesday 15th day of this month with his father, and his immediate connections. It seems to have been a family exodus.

They start out en route to Canaan, reach Haran,

where they “dwell” during Terah’s final sickness, *i. e.* a few months only. At the end of the year Terah dies he being just 205 years old. (*Vide* 2007 A. M.)

RECAPITULATION.

Postdiluvian Era.

Compare Gen. xi :—Preliminary Casting.

The Flood 1656

Arphaxad	was born after the Flood	2	years.
Salah	was born when Arphaxad was	35	“ old.
Eber	“ Salah	30	“
Peleg	“ Eber	34	“
Reu	“ Peleg	30	“
Serug	“ Reu	32	“
Nahor	“ Serug	30	“
Terah	“ Nahor	29	“
Gen. xii. 4, compared with xi. 32, shows)		204	“
Abraham left Ur when Terah was			
Total		<hr/> 2082	

Exodus xii. 41, compared with Num. xxxiii. 3 shows the exit from Ur was upon Tuesday, the 15th day of 7th month. Tuesday, the 15th day of the 7th month at the *end* of the 430th year later, *i. e.* in 2513 A. M. being the “selfsame day.” Abraham remained in Haran until his father died (Acts viii. 4) and then being *still* “75 years old” he continued his journey leaving the *locality* called Haran in

2083 A. M. and going into Canaan during the New Year season. The sojourn or "dwelling" in Haran was a mere delay, Abraham was 75 years "old" when "called," 75 years and 14 days "old" when he left Ur, and 75 years and *about* 6 months "old" when he left Haran—and the whole affair took place "in" his 76th year, just as we reckon ages to this day, (*vide* 2007 A. M.).*

* Moses was a *perfect* Chronologist. There is no shadow of error in his system when weighed by accurate Astronomy. It cannot be altered one minute without disturbing the immutable laws of the heavenly bodies. All schemes which do not agree with and square themselves by his are wrong. Men habitually reckon their ages upon the correct principle, *i. e.*, they score "past time." For instance, we become "21 years of age" on the 21st anniversary of birth, and continue to call "ourselves 21 years old" *until* the next birthday. That is we say we are "21" all through our 22d year! Let now this principle be rigidly applied from Creation (as by the generations of the Bible) down to the present time, and we have a perfect *system* through which the days, weeks, months, lunations, eclipses, transits, years and cycles, all roll back, each on their independent lines, one by one, reversing from their present constantly varying places, and, wonderful to relate, pass unerringly through o A. M., as if they started then and there together, out of the Hand of God Almighty. Whatever else, therefore, "Creation" was, it was the "Dawn of Cycles." And it can be demonstrated to the Echo that its elements are all measured, weighed and numbered and agree with those now keeping universal time. (See Appendix G).

SECTION V.

FROM THE DEATH OF TERAH TO THE XVIII.
DYNASTY.

2083 A. M. 1913 B. C.

At the beginning of the year, Abram still 75 years "old" (i. e. with six months of his 76th year to run) leaves Haran with Lot, passes through the land to Sichem, where he built an altar. Thence he moved to a mountain between BETHEL and Hai where he built another altar and here first he "called upon the NAME of the Lord." But there was famine in the land, so journeying continuously towards the south he comes to the borders of Egypt. Here he camped because it was the Sabbath, the 1st day of the 7th month, and his 76th birthday. The next day he crosses the border and journeying ever southward reaches *upper* Egypt about the 15th day of the 7th month.

In the reign of Usertesen II., 4th Pharaoh of the XII. dynasty, we have monumental representation of the arrival of 37 persons of the Semitic race, during a famine (400 years before the forty-third of Rameses II.). They were no doubt the party led by Abram and Lot. It is gratifying to find these secular monumental notices here and there, because they are naturally to be expected, but the absolute dearth of them would not invalidate such Chro-

nology as that of Bible. Its own systematic and astronomical accuracy proves it to be the record of genuine history and its setting and collaterals show its writers were inspired.

We are of course leaving out, at the ratio of 1,000 to 1, more than we can possibly put into such a list as this. Our object is merely to give in one continuous scheme some few of the ganglia upon the spinal column of Chronology. The nerves themselves, out to their remotest fibres, may easily be traced in so far as sacred history is concerned, by any one who will sit down patiently, and work in the Spirit of faith in its accuracy, with his Bible. If in any other spirit this topic is approached it will assist the doubter to confirm his own confusion. In other words "those who take the sword must perish by it." From 2083 A. M. to "The Law," 430 years.

2085 A. M. 1911 B. C.

Amenemha III. XII. Dynasty. Reigns 42 years.

2087 A. M. 1909 B. C.

At *Erich*, there reigned Kudur-lagamar (called Chedor-laomer in Gen. xiv. 1.) This was the king against whom the five others conspired, resulting in the first battle of history (i. e. of recorded history) Abraham closed the campaign and Melchizedek blessed him in the name of Sabbath. This "Melchizedek" —(a mere title)—was SHEM himself !

2092 A. M. 1904 B. C.

Abraham and Hagar. Gen. xvi. 1-14.

2093 A. M. 1903 B. C.

Ishmael born. Abraham 86 years old. Gen. xvi. 16.

2096 A. M. 1900 B. C.

Arphaxad dies without reaching the High Priesthood (*i. e.* Shem still alive and exercising the authority of being the Melchizedek).

2106 A. M. 1890 B. C.

Ishmael's 13th year. Gen. xvii. xviii. xix. xx.

2107 A. M. 1889 B. C.

Isaac born, middle of the civil year in Spring commencement of the eventual Sacred year. Gen. xxi.

2126 A. M. 1870 B. C.

Salah dies, also before Shem, and thus misses the succession to the High Priesthood.

Usertesen III. XII. Dynasty of Egypt. Reigns 26 years.

2132 A. M. 1864 B. C.

Isaac a "type," offered up, a substitute given and an antitype promised. Isaac was 25 years old. (His own willingness was the consent of Faith.) Thence 1897 years to the Saviour's crucifixion which bisects

the time to 5926 when the full restoration in all its parts God's Providence may bring about.

2144 A. M. 1852 B. C.

Sarah dies. Gen. xxiii.

2147 A. M. 1849 B. C.

Isaac marries Rebecca. Gen. xxiv. xxv. 19.

2148 A. M. 1848 B. C.

Abraham marries Keturah. Gen. xxv. 1-18.

2152 A. M. 1844 B. C.

Amenemha IV., Last king of the XII. Dynasty of Egypt. Reigns 8 years.

2158 A. M. 1838 B. C.

Shem ^{IX.} dies. The High Priesthood passes to Eber ^{X.} (from whom in due time it passes direct to Isaac ^{XI.}, since Peleg, Ren, Serug, Nahor, Terah, and Abraham all died before Eber !)

2167 A. M. 1829 B. C.

Jacob and Esau born. Gen. xxv. 21.

2182 A. M. 1814 B. C.

Abraham dies, being 175 years old. Gen. xxv. 7.

2187 A. M. 1809 B. C.

Eber ^{X.} dies, High Priesthood goes to Isaac ^{XI.}

2197 A. M. 1799 B. C.

Esau sells his birthright. Gen. xxv. 29-34.

2207 A. M. 1789 B. C.

Esau marries Judith. Gen. xxvi. 34.

2230 A. M. 1766 B. C.

Death of Ishmael. Gen. xxv. 17.

2234 A. M. 1762 B. C.

The Famous Eighteenth dynasty (new empire), begins with Aahmes, or Amosis I. He reigned 25 years. Completed the overthrow of "the Shepherds." He married Nefertari, the Queen of Ethiopia, and united all Egypt. This dynasty is the Cradle of History. Out of it as nations came Phœnicia, Israel, Greece and Troy; and eventually Rome, *i. e.* the dominant people whom we moderns best know, nor do we doubt it can be shown that each of them was tinctured with the Royal Hebrew pedigree.* Thence also came the Milesians—Knights of the Scarlet Thread—as we have shown in Studies No. 4 and 5.

* N. B.—The Chronology of the XVIIIth and XIXth Dynasties will be found in Study Number Five, where also will be found a Synchronological Harmony of the Reigns of the Kings of "Israel" and "Judah" down to Josiah 3365 A. M. The Chronology is then carried on, year by year, to 3444 A. M., in Study Number Two. The Sections covering the years from Joshua to Saul, and from 3444 A. M. to the Saviour will appear in future Studies.

“ By measure has he measured the times, and by number hath he numbered the times; and he doth not move nor stir them until the said measure be fulfilled.”

II. (IV.) Esdras, iv. 37.

THE FACT OF HISTORY;
OR
THE DELUGE CRITICALLY EXAMINED.

PART II.

THE
SOLI-LUNAR CALENDRIC SCHEME
UPON WHICH
BIBLICAL CHRONOLOGY
IS
FOUNDED.

FROM THE PUBLICATIONS OF
The British Chronological Association,
WITH NOTES AND COMMENTS.

“ They were eating, they were drinking, they were marrying, they were giving in marriage till the day that Noah entered the Ark, and the Deluge came and destroyed THEM ALL.”

Luke xvii. 27.

BIBLICAL CHRONOLOGY.

THE BRITISH CHRONOLOGICAL ASSOCIATION.

SOME dozen years ago, there was humbly born in the suburbs of London, an Association the result of whose labors are destined to revolutionize the whole subject of Biblical Chronology. We shall not attempt to give a detailed history of this society: suffice it to say that it fell to the lot of The British Chronological Association to fight the same dreary battle against prejudice and bigotry that always meets the efforts of those who search for truth, the whole truth, and nothing but the truth. There were few, if any, great names connected with its founders, and no government patronage encouraged its laudable endeavors. Nevertheless it wrought in earnest, on the sure foundation of implicit faith in God's Word as its fundamental premise, and in due time began to publish its investigations. Here and there a disciple gathered to its standard, and strengthening its stakes and lengthening its cords, it grew in stature and began to realize a foretaste of its mission.

It was in 1885 that a copy of one of the Annual Almanacs of this Association fell into the writer's

hand. Familiarity with a somewhat similar experience, may, perhaps, have induced a willingness upon his part to study its avowed discoveries in an unbiassed spirit; at any rate he did so and arose from the perusal with a conviction that the claims were just. The next step, as it appeared to him, was to attempt the vindication of these newly discovered, or rather rediscovered Lines of Time upon purely independent ones, both with a view of lending them additional credence, and of calling attention to the True Chronology upon this side of the Atlantic.

The Readers of this Series of Studies are already familiar with one of these vindications—embodied in “Joshua’s Long Day, and the Dial of Ahaz,” and it is our purpose in the present volume to set another Fact of History beyond the peradventure of a candid doubt.

But before entering upon our own investigations, it will be necessary to preface the discussion by referring to the tabulated demonstrations of the Parties of the First Part. We shall therefore quote at length the four Chronological Tables which constitute the basis of their System, and by means of which the whole scheme of Biblical Chronology unravels without hitch or halt.

Without further explanation therefore, other than that afforded by the Calendars themselves, and their accompanying working digests, we proceed to the exposition.

(Brit. Chron. Soc.)

THE ANTEDILUVIAN SOLAR CYCLE.

Showing the Dates of all the Sabbath Days.

Duration. = Past Time. =	Creation. 0	2d year. 1	3d. 2	4th. 3	5th. 4	6th. 5	7th. Ast. 6 A.M.
1st month	7 14 21 28	3 10 17 24	6 13 20 27	2 9 16 23 30	5 12 19 26	1 8 15 22 29	4 11 18 25
2nd "	5 12 19 26	1 8 15 22 29	4 11 18 25	7 14 21 28	3 10 17 24	6 13 20 27	2 9 16 23
3rd "	4 11 18 25	7 14 21 28	3 10 17 24	6 13 20 27	2 9 16 23 30	5 12 19 26	1 8 15 22 29
4th "	2 9 16 23	5 12 19 26	1 8 15 22 29	4 11 18 25	7 14 21 28	3 10 17 24	6 13 20 27
5th "	1 8 15 22 29	4 11 18 25	7 14 21 28	3 10 17 24	6 13 20 27	2 9 16 23 30	5 12 19 26
6th "	6 13 20 27	2 9 16 23	5 12 19 26	1 8 15 22 29	4 11 18 25	7 14 21 28	3 10 17 24
7th "	5 12 19 26	1 8 15 22 29	4 11 18 25	7 14 21 28	3 10 17 24	6 13 20 27	2 9 16 23 30
8th "	3 10 17 24	6 13 20 27	2 9 16 23	5 12 19 26	1 8 15 22 29	4 11 18 25	7 14 21 28
9th "	2 9 16 23 30	5 12 19 26	1 8 15 22 29	4 11 18 25	7 14 21 28	3 10 17 24	6 13 20 27
10th "	7 14 21 28	3 10 17 24	6 13 20 27	2 9 16 23	5 12 19 26	1 8 15 22 29	4 11 18 25
11th "	6 13 20 27	2 9 16 23 30	5 12 19 26	1 8 15 22 29	4 11 18 25	7 14 21 28	3 10 17 24
12th "	4 11 18 25	7 14 21 28	3 10 17 24	6 13 20 27	2 9 16 23	5 12 19 26	1 8 15 22 29

The first or creation year on this solar cycle is year 0, and the 2nd year, like the second hour of a clock, is 1. We count our age this way as past time. But only the first seven years of this cycle count as six.

The seventh or sabbath days of the intercalary period would be:—

7 14 21 28 35 42 49 56 63 70 77.

The cycle is proved by the "selfsame day" of the week falling 120 years back on the same day the flood began. See Gen. vii. 13, and compare with the selfsame day in Ex. xii. 41.

Patriarchs seem to have been the keepers of the Calendar, *dating their years from New Year's day*. See Gen. viii. 13.

The unalterable construction of this solar cycle is seen as follows: It is seven lunar years of 354 days each, or 12 revolutions of the moon. As the moon completes a revolution round the earth in $29\frac{1}{2}$ days, the ancients alternately used 30 and 29 days for their months in order to keep up with her movements, and thereby begin each year, as well as every month, with a new moon. If we therefore commence to put on a piece of paper each 7th day we shall write all the figures here printed. Thus the fourth 7th, or sabbath day, in the first month, is the 28th. As we have two days to spare, they make the first sabbath of the second month to fall on the 5th of the month. When we have in this way written seven years, we shall find that we can write no more, because the dates come round again. An eighth year would be like the first. But should we recommence the Lunar count at this point, the record of our years would be many weeks ahead of their true *solar* position. At this point therefore the ancients stopped their Calendric count for eleven weeks, *i. e.*, they scored off eleven Sabbaths which were allowed to be "silent," and recommenced the Calendar upon the 78th day ($7 \times 11 = 77$; $77 + 1 = 78$) which was a Sunday corresponding to a New moon at or about the Autumnal Equinox. The effect of this method was to score off 354 *Lunar* Sabbaths, keep track of 11 "Silent" Sabbaths, the last of which would thus become the 365th, or *Solar* Sabbath, of the Cycle, bring them to its practical

Soli-Lunar *termination* and enable them to recommence their Almanac upon strictly scientific principles.* They went strictly by the “phasis,” or actual appearance of the moon and thus their cycle tended to correct its own little residual error, and at long intervals they introduced special intercalations to strike the autumnal equinox which slowly crept ahead. The solar period was not divided into months and weeks, it was merely the gauge by which they rectified their general count. This explains the meaning of a solar cycle. By following out the above process we shall find that we have unconsciously written nine of the scriptural dates of the Flood, viz., in the fifth year and the first two months of the 6th year. The Flood, we are told in Gen. v., was in 1656, A. M. Let us see if these dates were. If we look at the table, page 60, —giving the first year of each solar cycle, or seven years, we see that 1652 was a first year; therefore 1653 would be a 2d, 1654 a 3d, 1655 a 4th, and 1656 a 5th. The dates, then, of the 5th year prove the flood to have occurred in 1656. Now see Gen. v.:—

Seth	was	born	when	Adam	was	130	years	old.
Enos		“		Seth	“	105		“
Cainan		“		Enos	“	90		“

Carried forward 325 or 2015 B.C

* In an exactly similar way it may (?) hereafter be proved that the vast cycles or eons of creation called “days” in our version are accurate to their last elements. Proved or not, Faith is satisfied.

Brought forward	.	.	.	.	.	325 years.
Mahaleel was born when Cainan	was	70	years	old.		
Jared	"	Mahaleel	"	65	"	
Enoch	"	Jared	"	162	"	
Methuselah	"	Enoch	"	65	"	
Lamech	"	Methuselah		187	"	
Noah	"	Lamech	"	182	"	
Gen. vii. 11	Flood came when Noah	600	"			

Total, 1656 or 2340 B.C.

We here find that Scripture, History, and Science agree. But the grandest proof is, that all the eclipses we now see necessitate the occurrence of the total eclipse No. 43, line xii., in 1656 A. M., which again requires No. 1 at Creation. We can next apply a stern test to prove these years were made up to solar periods. As the lunar year is 11 days short of the solar, the seasons would be reversed in 20 years and the dates of the 7th days of the first year get into the second. To prevent this great dilemma, the nations using the lunar year employed extra days, called "intercalary." Seven times 11 are 77. The Antediluvians could use no less, and their dates show that they used them at the end of each 7th year, and thus began their solar cycle as at creation. This would not disturb the regular observance of the 7th, or sabbath day, because 77 days are just 11 weeks. Now that they did this is evident from the fact that the 133d lunar year is the solar year also. The moon is always new, on the same day after 19 solar years. This is known in as-

tronomy as the Metonic, or lunar cycle, and to apply it we must square 7 years with 19 years.

It is certain, then, that by putting in the extra days at the end of the cycle, the lunar and solar years, recommenced together: but not exactly so; hence at the end of two cycles they have put in an extra week, because 15 years require 171 intercalary days. This is a beautiful scientific test of the precise solar length of the Antediluvian years, an unquestionable demonstration of the true historical character of the book of Genesis, and the Divine origin of time.

It now remains to be explained how the *First* years of the foregoing Table (page 55) are to be located along the stream of A. M., or Chronological. time. It is an easy matter. The year 0 A. M., being the original First year of the Cycle, the year 7 A. M. would be the next, 14 A. M. the next, 21 A. M. the next, and so on. Hence the Table upon the following page (60) is naturally constructed in simple Arithmetical progression, with a constant difference of 7 years. It is limited to 2065 A. M. because the Antediluvian Cycle itself, fell into disuse in 1722 A. M., at which year it was succeeded by a 15 year cycle. For purposes of symmetry, we have carried it out a few years beyond. N. B.—It is to be noted that these years are 1st years not “Sabbatic Years,” the latter are 1 less, and for Sabbatic purposes *continue down to the present time*. A First year begins with Sunday, a Sabbath year ends with the Seventh day!

TABLE OF EACH FIRST YEAR OF THE ANTEDI- LUVIAN SOLAR CYCLE.

(BRIT. CHRON. ASSOC.)

This Cycle ceased at the end of 1721, A. M.

The following are 7th years and therefore the 1st of each successive Cycle of Seven.

*0	259	518	777	1036	1295	1554	1813
7	*266	525	784	1043	1302	1561	1820
14	273	*532	791	1050	1309	1568	1827
21	280	539	*798	1057	1316	1575	1834
28	287	546	805	*1064	1323	1582	1841
35	294	553	812	1071	*1330	1589	1848
42	301	560	819	1078	1337	*1596	1855
49	308	567	826	1085	1344	1603	*1862
56	315	574	833	1092	1351	1610	1869
63	322	581	840	1099	1358	1617	1876
70	329	588	847	1106	1365	1624	1883
77	336	595	854	1113	1372	1631	1890
84	343	602	861	1120	1379	1638	1897
91	350	609	868	1127	1386	1645	1904
98	357	616	875	1134	1393	1652	1911
105	364	623	882	1141	1400	1659	1918
112	371	630	889	1148	1407	1666	1925
119	378	637	896	1155	1414	1673	1932
126	385	644	903	1162	1421	1680	1939
*133	392	651	910	1169	1428	1687	1946
140	*399	658	917	1176	1435	1694	1953
147	406	*665	924	1183	1442	1701	1960
154	413	672	*931	1190	1449	1708	1967
161	420	679	938	*1197	1456	1715	1974
168	427	686	945	1204	*1463	1722	1981
175	434	693	952	1211	1470	*1729	1988
182	441	700	959	1218	1477	1736	*1995
189	448	707	966	1225	1484	1743	2002
196	455	714	973	1232	1491	1750	2009
203	462	721	980	1239	1498	1757	2016
210	469	728	987	1246	1505	1764	2023
217	476	735	994	1253	1512	1771	2030
224	483	742	1001	1260	1519	1778	2037
231	490	749	1008	1267	1526	1785	2044
238	497	756	1015	1274	1533	1792	2051
245	504	763	1022	1281	1540	1799	2058
252	511	770	1029	1288	1547	1806	2065

Each of the years enumerated on the opposite page began on the 1st day of the week, Sunday, having their first Sabbath on the 7th day, Saturday. They all belong therefore to Table 0 of the seven repeating years, or solar cycle, showing the dates of the Antediluvian Sabbaths. Those marked * also commenced a sevenfold lunar cycle—a beautiful scientific proof that the years were made solar. The lunar cycle being a measure of 19 years, to work it upon a scale of seven years, it must be used sevenfold—7 times 19 are 133—hence the expiration of each 133 years reproducing the dates of creation week and year, is an unquestionable demonstration that the shorter lunar years were lengthened to the solar years by adding extra or intercalary days.

To find 1656, the Flood year, it will be seen that 1652 was a first year on the solar cycle, therefore table 2 is 1653, table 3 is 1654, table 4 is 1655, and table 5 is 1656. (See Cycle on page 55.)

It will be seen by the preceding table of the Sabbaths of every seven years, which form the solar cycle or repeating years of the antediluvians, that when they are *backed up* to the time of creation, namely, 1656 years before the flood, that the first sabbath was the 7th day of the 1st month of the first year! Hence it is plain that “Time” was instituted in Eden, and that the date of Creation is an historical and scientific fact.

It will also be seen by this solar cycle on the preceding page that the dates of the Deluge always

came round again on the same days of the week when the year was the fifth of the cycle, or seven-fold series. Taking 1652, which the annexed table of first years supplies, the fifth of the cycle is 1656 having the same dates for Sabbaths as those printed in black type with scriptural references in the explanation of the Sabbaths in Noah's diary of the deluge. How beautiful is this! It proves that the dates of Creation and the Deluge are historical facts and that the Bible is the Log Book of the world.

These seventh years were not originally written in the simple order as printed. They were worked backwards from the Flood by the Premier of the British Chronological Association. Having first found the true form of the Deluge year, the next step was to obtain the solar cycle by ascertaining how many years elapsed before the dates repeated themselves on the same Sabbath days. When this was done the years were backed in sevens, and it was found that they exactly took in the 1656 years obtained in Gen. v., and began the first Sabbath in Eden on the 7th day of the 1st month.

The lunar cycle being 19 solar years (a period of 235 lunations when the moon is again new at practically the same time and place), we have a beautiful scientific proof that the antediluvians carefully added the necessary extra or intercalary days, otherwise it could not fall on a first year. These are great scientific facts. What Creation *was* this work does not undertake to say, but it was the Divine institu-

tion of Time and the origin of Man—Adam's years are the progress of time.

THE LUNAR CYCLE.

The Second Line of Astronomical Time.

History Systematized.

A Lunar Cycle—sometimes called Metonic Cycle in honor of Meton, its re-discoverer—is a period of 19 tropical years, or 19 years, two hours, and some minutes, when the same new moon occurs. Thus if a man saw the moon new, apparently resting on the top of a distant church spire, and the clock struck nine in the evening, he might see the moon again new 19 years afterwards, at four minutes past eleven, and in the same position. The period is a measure of time, 235 lunations, which will gauge all past time by measuring it off as a man might measure off a firkin of wine with a standard pint jug.*

Apply this to the Antediluvian Solar Cycle and it will show that every 133d year was the same as the 1st year, that is beginning with Sunday and having Saturday on the 7th day of the month.

The process is fully explained in connection with the Table of First Years of each Antediluvian Solar Cycle, showing that to square 7 with 19 we must take the Solar Cycle sevenfold. Thus seven times 19 are 133. Every 133d year in that table is

* The lunar cycle being 2 hours and 3 or 4 minutes longer than 19 solar years does not interfere with the computation of *years*.

marked *, and it falls on a first year. If it fell on any other year, it would show that the patriarchs had not kept correct time, or had not properly observed the intercalary days.

The following is an astronomical method for proving the year of the FLOOD:

7	cycles	of	19	years	are	133	Astron.
14	"		"			266	"
21	"		"			399	"
28	"		"			532	"
35	"		"			665	"
42	"		"			798	"
49	"		"			931	"
56	"		"			1064	"
63	"		"			1197	"
70	"		"			1330	"
77	"		"			1463	" Astron.
84	"		"			1596	"———1596
						1 cycle of 19 years	19
						1 "	" 19
						1 "	" 19

Table 1 of Solar Cycle was 1652 A. M. or Astr. 1653

Hence table 2 was 1654, table 3 was 1655, and table 4 was 1656, and table 5 was 1657 Astr. i. e., 1656 A. M., upon which we find the dates of the Flood, in Gen. vii. and viii.; and from chap. v. we find the Flood year was 1656 A. M.

The above is Astronomical time, or years of duration. They would be 1 less if we start year 1 as 0.

This Lunar Cycle proves all the periods of history. It settles the doubts of men respecting the length of the years of the patriarchs. We find that they were solar, and that although the ancients only divided the lunar year into weeks and months, yet they observed the annual revolution of the earth as a solar period, the precise length of which they must have known and observed better than we have.

The 15 years of the *Post-diluvian*, or Ancient *Hebrew* Solar Cycle, (page 72), are also proved by the Lunar cycle, and show us that there has not been a day lost or added improperly since time began. 15 times 19 are 285, therefore every 285th year is the first of the Solar Cycle, having Saturday on the 7th of the month as at Creation. It works in this way down to the present year, (1891-2 A. D.), giving us a simple and unquestionable proof that unbroken weeks of seven days have come down to us from Eden. It could not be otherwise with lunar years which no man can alter if he tried. The Lunar Cycle is the natural production of lunar time. We cannot fool and muddle about the lunar year as we have done with the solar period. It is the production of the motions of the moon, and being sternly astronomical, we cannot alter it nor the multiplication table. The eclipses and transits would mock us if we touch the Lunar Cycle, the Second Line of Astronomical Time. Alas! they mock us now because we inherit pagan time. We assign dates to them with which they have no proper concurrence.

Any history to which the Lunar Cycle will not apply must be rejected as spurious. That of Babylon and also that of Assyria are good, and have a close relationship to Scripture; but Chinese history is purely mythological earlier than 1796 A. M., which was soon after the dispersion from Babel. (See also Encyclopedia Britannica, Article Chronology.)

Neither can any system of Chronology be worth attention which is incompatible with this and other systematic scientific measurements. It is supreme folly to put 30 years into a Lunar Cycle of 19 years, which must be done if the hap-hazard systems of Hales and Deutch are followed. Of all the old Chronologists Usher was the truest. His line of history commences 4004, instead of 3996 B. C., the true year of the Nativity, as all chronologists now admit. Allow Usher these eight years and the length of his line is correct, but for want of a scientific system, he could not adjust some of the intermediate Biblical dates.

The great advantage of the Lunar Cycle is that it absolutely determines the precise succession of years and days. For instance, the Ancient Hebrew Solar Cycle began with 1722, hence every 285th year must be the same as the 1st as to the dates of the Sabbath Days. If the historical date assigned to any particular event showed that this was not so, it would be a sure proof of a departure from a true consecutive record, *i. e.* would *disprove them!* It will also be seen that the first year of the cycle

always ends alternately with 2 or 7. Antediluvian time has this systematic precision by the Lunar Cycle in lengths of 133 years. This is grand work! Instead of doubting we must admire.

“ It will thus be seen that the line of time given in this book is one determined by astronomical data, and cannot be controverted. It is indeed supported by five astronomical lines and extends from Adam to the present time. Nothing is left to individual judgment. It is that known as the Hebrew version ; but this is because it is the only one which bears the test of the controlling dates of astronomical cycles. As such it must hold its place whatever else may be stated concerning Chinese mythology. It is very remarkable that where reliable Chaldæan, Chinese, or Egyptian history commences, it is close to the period known as the Dispersion. Before this the tradition of these nations states that they were governed by gods, which is a reference to the patriarchs whose long lives and position entitled them to be regarded as “ Sons of God.” Close and careful investigations show that prior to the Dispersion there is no history, monumental or otherwise, except that obtained through the Hebrews. The epoch of Menes, which commenced the dynasties of Egypt, drawn up by Manetho, the priest of Heliopolis, three centuries B. C. began after the Dispersion. Thus we have

The Scriptural account, about 1770 A. M.
Beginning of Chaldæan history 1770 “

Chinese history, the Hia	1796 A. M.
Egyptian Epoch of Meno	1896 “

“The Hebrew text gives us no precise date for the Dispersion, but it is easy to see that it was rather better than a century after the Flood. The Babylonian cuneiform tablets are copies of records made by the Accadians who used the cuneiform system of writing, and built the great cities of Chaldæa mentioned in Gen. x. 10., as Accad, etc.”

“I am therefore of opinion,” says Mr. Dimbleby, the Premier Chronologist of Great Britain and Chairman of the Association, “that, as the Chaldæan, Chinese, and Egyptian histories commence with the Dispersion, the mythological references are fragmentary allusions to the patriarchal period, which for its great scientific character we are bound to accept. Manetho states that the government of the Egyptians was first by gods; the Chinese state that they were ruled by gods and god-descended men, and the system of time they keep is lunar like that of the Antediluvians, Chaldæans, ancient Babylonians, and Hebrews; and it is also plain that the great Pyramid of Egypt was built by Cheops, who flourished 120 years after the Dispersion.”

“To show the progression of history, it is always best to give the A. M. year. The B. C. year breaks the line of view. In the following outline the years are not always to be considered as correct, excepting such as are lettered from the solar cycle, for example, l. e. g. n. etc. The other years must be re-

garded as approximate. The outline cannot start earlier than the Dispersion, because we have no secular history, verbal or monumental, prior to that period. The greatest antiquities in the British Museum are Egyptian, but they are all subsequent to the Dispersion. By eclipses and ancient inscriptions, we shall obtain more reigns of monarchs, contemporary with scripture, as we have several of Egypt, Babylon, Etc.; we shall then classify Manetho's dynasties of Upper and Lower Egypt, now found to be not successive but contemporary, as are others of his lists."

OUTLINE OF SECULAR HISTORY
FROM THE DISPERSION.

1770 was about the Dispersion from Babel.

A. M.	CHALDÆAN.	B. C.
1770	Beginning of Chaldæan Empire	2226
2730	Chaldæan Empire ceased, 960 yrs.	1266

BABYLONIAN AND ASSYRIAN.

2729	To the fourth King	1267
2730	Bel-lush, one of series of 4 kings	1266
2769	Ninip-pal-eser, first of 5 kings	1227
2789	Assur-dan ruled Bel's people	1207
2819	Mutag-gil-nuska, his son	1177
2839	Assur-risilim, son of preceding	1157
2869	Tugulti-pal-eser I., his son	1127
3094	Tugulti-ninip II.	902
3100	Assur-dani-pal	896

A. M.		B. C.
3144	Shalmaneser II., son of preceding	852
3233	Pul, probably Iva-lush, 2 Kings xv.	763
3260	Tiglath-pileser, II. 2 Kings xv.	736
3274	Sargon do.	722
3283	Sennacherib, 2 Chron. xxxii. 1	713
3317	Essarhaddon, 2 Kings xix. 37.	679
3330	Assur-emit-ili	666
3371	Saracus, or Sardanapalus II.	625
3371	Nabopolasser, Gov. of Babylon	625
3377	Nabopolasser, King of Babylon f	619
3398	Nebuchadnezzar, 2 Kings xxv. 1.	598
3443	Evil-Merodach	553
3450	Lambynetus and Beltshazzar	546

MEDES AND PERSIANS.

3466	Darius the Mede, Dan. ix. 1, bgn. e	530
3468	Cyrus, Dan. x. 1. Ezra iii. 6, Began g	528
3475	Cambyses, began on solar cycle n	521
3482	Smerdis, usurper, part of the year g	513
3483	Darius Hystaspes, Hag. i., Bgn g	513
3518	Xerxes (Ahasuerus of Esther) l	478
3538	Artaxerxes Longimanus, Ne. ii. i. b	458

GRECIANS.

3579	Grecians masters over Persians	417
3660	Alexander (Common era)	336
3667	Alexander the Great ascended	329
3670	Alexander defeats Darius	326
3673	Alexander's Capital at Babylon	323
3680	Death of Alexander, age 33	316

A. M.	ROMANS.	B. C.
3850	Romans conquered Greece	146
3892	Rome mistress of the World	104
3970	Cæsar Augustus	26
	GREAT BRITAIN.	A. D.
4049	Britain made a Roman province	50
4419	Roman power ended in Britain	402
5065	Norman Conquest by Wm. I.	1066
5460	Edward IV., House of York	1461
5648	Charles I. beheaded	1649
5609	Discovery of Jupiter's moons	1610
5890	Beginning on Sept. 23d,	1891

THE NEW ERA AT HAND.

A POSSIBLE READING OF THE PROPHETIC SLATE.

Daniel ii., vii., viii., xii.

A. M.

I Babylonian Beast,	3377 + 2520 = 5897. Dan. ii. 91 = $\frac{1}{4}$ of 365 (Part of 3377 counts.)
II Medo-Persian Beast,	3468 199
III Grecian Beast,	3667 + 2230 = 5897. Dan. viii. 303 (2300 Lunar years = 2230 Solar yrs.)
IV Roman Beast,	3970 666 Rev. xiii. 18.
Jerusalem	{ $\frac{4636}{4637}$ } captured.
The Saracen Abomination	1260 Rev. xiii. Contemporary.
	5897

These years run in the Sacred Scale, i. e. from the middle to the middle $3377\frac{1}{2}$ to $5897\frac{1}{2}$, and $5897\frac{1}{2}$ is our $1899\frac{1}{4}$ A. D. We shall see what we shall see, and at any rate Wisdom is justified of her children.

Solar Cycle concluded.

		<i>j.</i>				<i>k.</i>				<i>l.</i>					
1st	month.	1	8	15	22	29	4	11	18	25	7	14	21	28	
2nd	"	6	13	20	27		2	9	16	23	5	12	19	26	
3rd	"	5	12	19	26		1	8	15	22	4	11	18	25	
4th	"	3	10	17	24		6	13	20	27	2	9	16	23	
5th	"	2	9	16	23	30	5	12	19	26	1	8	15	22	29
6th	"	7	14	21	28		3	10	17	24	6	13	20	27	
7th	"	6	13	20	27		2	9	16	23	5	12	19	26	
8th	"	4	11	18	25		7	14	21	28	3	10	17	24	
9th	"	3	10	17	24		6	13	20	27	2	9	16	23	30
10th	"	1	8	15	22	29	4	11	18	25	7	14	21	28	
11th	"	7	14	21	28		3	10	17	24	6	13	20	27	
12th	"	5	12	19	26		1	8	15	22	4	11	18	25	
											3	10	17	24	31

		<i>m.</i>				<i>n.</i>				<i>o.</i>					
1st	month.	4	11	18	25		7	14	21	28	3	10	17	24	
2nd	"	2	9	16	23		5	12	19	26	1	8	15	22	29
3rd	"	1	8	15	22	29	4	11	18	25	7	14	21	28	
4th	"	6	13	20	27		2	9	16	23	5	12	19	26	
5th	"	5	12	19	26		1	8	15	22	4	11	18	25	
6th	"	3	10	17	24		6	13	20	27	2	9	16	23	
7th	"	2	9	16	23	30	5	12	19	26	1	8	15	22	29
8th	"	7	14	21	28		3	10	17	24	6	13	20	27	
9th	"	6	13	20	27		2	9	16	23	5	12	19	26	
10th	"	4	11	18	25		7	14	21	28	3	10	17	24	
11th	"	3	10	17	24		6	13	20	27	2	9	16	23	30
12th	"	1	8	15	22	29	4	11	18	25	7	14	21	28	
											6	13	20	27	34

In using this Solar Cycle for Biblical purposes the 7th month must always be called the 1st of the year (according to Divine command, Exodus xii. 2,) from the exodus of the Israelites in the 7th month 2513, A. M., Table 1. Therefore 7th sacred month is the 1st civil month, the 8th sacred month is the 2nd civil month, and so on. The intercalary month had no number. There is no Biblical date upon it, although the dates of Scripture run through it with scientific accuracy. As a civil regulation the Jews probably thought it would show a want of obedience to mention an intercalary date, and for this reason also Moses has given us no dates for Scripture history prior to the institution of the sacred order of the months, excepting those of the flood.

HOW THE CYCLE IS PROVED.

1. It is astronomical, being the movements of the moon. 2. It is perpetual, and as true to-day as it was 4167 years ago, at Heber's birth. 3. The fifteen Songs of Degrees (Psalms cxx. to cxxxiv. represent the 15 years of the solar cycle. 5. A solar cycle of 15 years, but no other, will produce

the Biblical dates and periods subsequent to 1722 A. M.

HOW TO FIND THE YEARS.

The year given in the margin of the Bible is found by subtracting the B. C. year from 4004. Thus 1491 from 4004 is 2513, A. M., the Exodus.

The following were first years of this Solar Cycle of the Ancient Hebrews, that is table *a*. By knowing this, any intervening year is found. If therefore any year wanted is not in the list, take the nearest preceding one; for example, the Israelites marched out of Egypt in the 7th civil month of 2513, as the nearest preceding year in the list is 2502, and, of course, the first on the cycle, we must count forward upon it until we arrive at 2513, which is table *l*. (Page 55).

*1722	2067	2412	2757	3102	3447	3792
1737	2082	2427	2772	3117	3462	3807
1752	2097	2442	2787	3132	3477	3822
1767	2112	2457	2802	*3147	3492	3837
1782	2127	2472	2817	3162	3507	3852
1797	2142	2487	2832	3177	3522	3867
1812	2157	2502	2847	3192	3537	3882
1827	2172	2517	*2862	3207	3552	3897
1842	2187	2532	2877	3222	3567	3912
1857	2202	2547	2892	3237	3582	3927
1872	2217	2562	2907	3252	3597	3942
1887	2232	*2577	2922	3267	3612	3957
1902	2247	2592	2937	3282	3627	3972
1917	2262	2607	2952	3297	3642	3987
1932	2277	2622	2967	3312	3657	*4002
1947	*2292	2637	2982	3327	3672	4017
1962	2307	2652	2997	3342	3687	4032
1977	2322	2667	3012	3357	3702	4047
1992	2337	2682	3027	3372	*3717	4062
*2007	2352	2697	3042	3387	3732	4077
2022	2367	2712	3057	3402	3747	4092
2037	2382	2727	3072	3417	3762	4107
2052	2397	2742	3087	*3432	3777	4122

Our 1879, A. D. began on Table *a*, 6th of 4th month, 5877. The sol. cycle and eclipses prove us 1 yr. 6 months too fast. Our 1891 A. D. began in 4th month of *m* on the Cycle.

The first 7th day of all these years was the Sabbath, and as 1722 would have been the first year of the Antediluvian sol. cycle, it is a continuation of the 7th day from Eden. The week has never been broken. The dates of all scripture history show this. It is also proved by the lunar cycle of 285 years marked*. 15 times 19 are 285.

The years of the patriarchs from Noah to Abraham—like those from Adam to Noah—are an accurate and most splendid record of solar years. This is easily proved by noticing that the lines of the eclipses they require are not broken by, them. In this way science verifies each year.

The way by which we obtain the year 2082, when Abraham left Ur (a first year of this cycle) is—

Gen. vii. 11.	Noah was 600 years at flood,	1656	A. M.
.. xi. 10.	Arphaxad born after that ...	2	years.
.. " 12.	Salah born when Arphaxad was	35	years old.
.. " 14.	Eber " Salah " 30		
.. " 16.	Peleg " Eber " 34		
.. " 18.	Reu " Peleg " 30		
.. " 20.	Serug " Reu " 32		
.. " 22.	Nahor " Serug " 30		
.. " 24.	Terah " Nahor " 29		
.. " 32.	Terah died when he was	} 205	
.. xii. 4.	Abraham was then seventy-five		
<hr/>			
2082*			

*Terah left the city of Ur with Abraham on 15th of 7th month, 2082, table *a*, and died in Haran at the end of the year 2082. Abraham stopped and dwelt in Haran until after this event, (Acts vii. 4). After Terah's death (and Nahor's his son?) he left Haran in 2083 he being still 75 years old! Gen. xi. 31. Abram went right through Palestine and kept on journeying southward to Egypt.

SELSAME DAYS.

Table *a*. was 2082, when Abraham left Ur, and table *l*. was 2513, when the exodus took place.

The 7th months are alike in their dates of Sabbath Days, therefore the 15th of both would produce "the selfsame day" of the week (Tuesday) and date of the month. We read in Numbers xxxiii. 3 that the Israelites left Egypt on the 15th of the 1st sacred month (7th civil) thus showing in Exod. xii. 41, what Moses meant by "the *end* of the 430 years" falling then on a selfsame day.

Another selfsame day is found in Ezek. xl. 1. In chap. xxxiii. 21, the prophet says the city was smitten in the 12th year of the captivity, on the 5th day (Saturday) of 10th month. The first six months of the captivity years fell on one civil year, and the last six on the next one, as shown on the list of Captivity Years;* hence the 10th sacred (4th civil) month fell upon table b., which was 3418 A. M. Turning next to chap. xl. 1. we read that in the 25th year of the captivity, "in the beginning of the year," that is 3430, on the 10th day of the month (1st sacred), "in the 14th year after the city was smitten," the hand of the Lord was upon me. This was Thursday (See page 167, Study Number Two, and compare with 161 same Study) table n. Both days were Thursdays and scientific.

"In the 3d (5th civil) month, Exod. xix. 1. table l., the Israelites entered the Wilderness of Sinai on the same day, that is 1st of the month,

* *Vide* Page 166, Study No. Two.

hence the "third day," when the Law was given, was Tuesday, the 3d day of the week. It was also the 50th day (Pentecost) after the Passover in Egypt. Pentecost means 50th.

It was just 430 years before this, no more and no less to a day (but that day a Sabbath, instead of a "selfsame day") that the Lord confirmed at Bethel, (Gen. xiii. 14-18) the unconditional promise he had made to Abraham at Sicheim, (Gen. xii, 7) before his first arrival at Bethel. In the interim, *i. e.* between the two promises to Abraham, the Patriarch had wended his way slowly down to Egypt (Gen. xii. 9), had met with his adventure there, (Gen. xii. 10-19), had been hastily dismissed, and thereupon had hurried back to his starting point (Gen. xii. 10; xiii., 1-18), in time to celebrate the second Pentecost of his own exit from Ur. Not that he necessarily knew it, as Moses did, by any such term, or custom, but the fact remains the same, and the more important one, that "the Law" was thus "430 years afterwards," as Saint Paul claims (Gal. iii. 17) even to the selfsame day of the year and month, though not of the week. In the year of the Crucifixion, 4029 A. M., this day of Pentecost, the anniversary of the giving of "the Law," fell on Friday, *i. e.* fifty days after the actual Jewish Feast of the Passover! (Of course not on Sunday, which was fifty days after the *Resurrection*, and of which there is no chronological type among the Jewish feasts!)

Our Lord was born at the end of the 3d *civil*

month, in 3996, table j, answering to our December. and actually on the 25th.

The common Christian Era began with the 4th month of 4000, table n, which was year 1, A. D. It ought to have started with 4001, then 4002 would have been our 2, and so on. Owing to this blunder our years are 1 before A. M.

The Crucifixion was Thursday, 14th of 7th civil (1st sacred) month, table m, 4029, A. M., or 30 A. D. The special passover kept by the Lord and his disciples was that of the *accurate astronomical moon*. It was prepared Wednesday afternoon 13th, *i. e.* before its sunset "ending." It was eaten on Thursday evening, 14th, *i. e.* after the sunset "beginning" of that day which was the day of the Preparation before the *Jewish* Feast day. The latter followed the mandate of the Sanhedrim who went by the *Phasis* of the Moon, and thus were one day late.*

The 15th, Friday, was this Feast day—or High day of Holy convocation, and during it the Saviour was in the Grave—the whole of it—the modern and western mistake if not pious fraud—of Good *Friday* to the contrary notwithstanding. The 16th

* This often happened in Jewish History (*vide* Josephus). We have verified the work of Rev. J. K. Aldrich "The Day of Our Saviour's Crucifixion," and have independent evidence thereon to offer in due time. In the meanwhile we recommend his work to all of our Subscribers, and have made arrangements to furnish copies from this office (cloth 12 mo. 262 pp., \$1.50).

was Saturday, old Sabbath, and on the 17th, (Sunday) after the first twelve hours of its "evening" were over, the Lord arose. This was resurrection day—the First or Lord's Day, but Sunday; thus "as it is written" he was "*three days and three nights in the grave*" and arose "*on the third day!*" Amen.

The rich cluster of dates beginning, Acts xx. 6, are 4058, or 59 A. D. table l. See Paul's Journey.

Table k, 2d of 7th civil month (1st sacred) is the date of Luke vi. 1, and should have been translated "The Sabbath, the 2d day of the 1st month."

THE TASK BEFORE US.

Having now presented the general outline of the *true* Chronology, and illustrated its employment by citing against it a few Biblical dates and references, we next propose to demonstrate its *Astronomical* accuracy, and at the same time to vindicate the Mosaic account of the DELUGE as a Fact capable of sustaining the most searching scrutiny. We take this particular subject advisedly and in the same spirit which led us to investigate the accounts of Joshua's Long Day and of the Dial of Ahaz.

But shall a man plead for the Almighty? or a son of man come forward as his counsel? God forbid! It is not in such premises that we presume to utter parables, but rather at the Bar of human doubt do we appear, and in these last and hurrying moments of the latter days—so like to those of

Noah, as it was written they should be—we have a few words with the jury who unwittingly are trying their own case—we would therefore plead with them, and for themselves,—and as a counsel suddenly enriched by a discovery of “new evidence” answering to the statue definition of the “best,” we demand that the whole case be reopened ere it is too late.

THE FACT OF HISTORY ;
OR
THE DELUGE CRITICALLY EXAMINED.

PART III.

THE SCIENTIFIC SPIKE.

THE RECORD.

“And the Lord shut him in.”

Gen. vii. 19.

QUERY.

Who let him out?

THE SCIENTIFIC SPIKE.

THE "Spike" with which in the present Study we undertake to nail Noah's Ark to Ararat or Error, is that of *Astronomical Chronology*, and it remains to be seen whether the nail substantiates the Mosaic account or not. If it does, it is an unanswerable argument of credibility; if not, the spike must remain until withdrawn, and must be drawn or replaced by a better one to save the Bible.

Now the argument is briefly this:—Either Noah, as reported by Moses, is *correct* as to his dates when scrutinized by the closest modern astronomy possible, or he is *not*.

If he *is* correct, then his knowledge of the "absolute" value of the year, was at least equal to our own, which is contrary to modern scientific belief, since the whole history of Secular Astronomy is an argument in favor of growth in accuracy from the most ancient times to our own. Per contrary, if Moses is not correct, then he was not inspired, and the Story of Sinai becomes equally without authority, to any fair minded man, as that of the Flood.

Now we accept the issue as here stated, and maintain that Moses WAS correct, far beyond "seconds of time" even indeed, to absolute accuracy, and are prepared to argue the point. And if we mistake

not, the investigation will lead us to most remarkable results if our premises and conclusions shall have correctly realized the verity of Inspiration.

For to such as think deeply and investigate nature with logical consistency, nothing is more certain than that an absolute truth firmly grasped is the germinal point of an infinity of others, and that what man in common parlance calls "coincidence," is really the voice of natural law darkly understood.

Turn we now to Genesis, according to the Hebrew version of the Bible now in the hands of the Christian world, and selected among other versions because: *first*, it is by general consensus the most correct; *second*, it is the most familiarly at hand; *third*, it is naturally reasonable to suppose that *if* its source *be* inspiration, then the Power that holds and guides the destiny of Man, has seen to it that the version of the Scripture, closest at hand to the most civilized part of humanity, is the correct one in its chief facts and data.

Now it is easy to determine the absolute dates of the Flood from beginning to end, from this version; the which, as to its commencement and end Moses states as follows:

Gen.	I.	27.	Adam was born in Chronological year. i. e., A. M.				0
"	V.	3.	When Adam	was 130 years old	Seth	was born.	130
"	V.	6.	" Seth	" 105	" Enos	"	235
"	V.	9.	" Enos	" 90	" Cainan	"	325
"	V.	12.	" Cainan	" 70	" Mahalaleel	"	395
"	V.	15.	" Mahalaleel	" 65	" Jared	"	460
"	V.	18.	" Jared	" 162	" Enoch	"	622
"	V.	21.	" Enoch	" 65	" Methuselah	"	687
"	V.	25.	" Methuselah	" 187	" Lamech	"	874
"	V.	28.	" Lamech	" 182	" Noah	"	1056
"	VII.	6.	" Noah	" 600	{ The Flood of waters } { was upon the Earth. }		1656

Hence, the year 1656 A. M. was spent in the Ark, as any one may see by carefully examining the details of the account as given by Moses.

For the Flood purports to have lasted exactly a year as to the confinement in the Ark, and this not only a true Solar year as to duration, but by this calculation, it proves itself to have been the "*absolute*" one from the instant of its Astronomical beginning, to its equally Astronomical termination—as we shall show.

But the Mosaic account is explicit as to the date of the final day (of 24 hours duration) spent in the Ark (Gen. viii. 14) where we learn that "in the second month, on the twenty-seventh day of the month, was the earth dried," and verse 13 shows this was in the so-called "601st year," of Noah's life (compare Gen. vii. 11).

Now at some time on the *next* day, and at some suitable hour, Noah and his family (v. 15, 16, etc.), left the ark, and at this *moment* the solar year ended, *i. e.* 1656 A. M. (which astronomically was 1657. Since we assigned Adam's birth to the year 0, which at its close was the astronomical *first* year of mundane existence, *i. e.* of *his* existence). And this next day was the 28th day of the 2d month of Noah's 601st year, or as we have interpreted the meaning, of the very last *instant* of the 1657th solar year.

Let us therefore see if this plain, modern, interpretation of common parlance is accurately correct or not.

In order to accomplish the first step of this Highest Criticism we must be certain of what we moderns mean by the absolute length of the mean solar year.

Now looking through astronomies and encyclopedias we find that this desideratum, to wit; the length of the mean solar year, is one of the least settled facts of modern science. However, to the best of our research, we find some twenty diverse values, no two agreeing (!) of this astronomical element, and tabulate them as follows:—

THE LENGTH OF THE YEAR (i. e. MEAN SOLAR YEAR).

Date.	Authority.				Days.	Hrs.	Mins.	Seconds.
1475 + B.C.	Moses. (Noah.)				365	5	48	50.885
1252	Ancient Egyptian,				365	0	0	0.
	Euctemon and Meton,				365	6	18	57.
	Calippus, etc.,				365	6	0	0.
	Hipparchus,				365	5	55	12.
	Hindu,				365	5	50	30.
	Albategnius,				365	5	46	24.
	Alphonsine Tables,				365	5	49	16.
	Walther,				365	5	48	50.
	Copernicus,				365	5	49	6.
	Tycho Brahe,				365	5	48	45.33
1543	Kepler,				365	5	48	57.6
1602	J. Cassini,				365	5	48	52.4
1743	Flamsteed,				365	5	48	57.5
	Halley,				365	5	48	54.8
	La Caille,				365	5	48	49.
	Delambre,				365	5	48	51.6
	La Place,				365	5	48	49.7
	Bessel,				365	5	48	47.8
	Chambers,				365	5	48	49.65
	Dr. Dick,				365	5	48	51.

Now the above, is, to this day, the very best array

of data afforded by modern science upon this most important fact, the length of the Mean Solar Year ; and, as the basis of a critical scrutiny of Moses' Chronology, is not confident of accuracy beyond the third degree, or "minutes," since no two of these authorities agree as to all four degrees, or days, hours, minutes, *and seconds!*

What, therefore, is the modern basis upon which to proceed further? This is an essential query, since an error of a single second in a year will make 1657s. in the duration assigned from Adam to the exit from the Ark, or of 27m. 37s. an error which we do not believe Moses dared to make! and yet within this limit of variation, + or —, no astronomer on earth can positively convict the Scriptures of error.

However, as we must select a value which shall satisfy the modern College down to *their own limit!* we shall proceed as follows.

1st Approximation: The average of the whole twenty values given above is 365d. 4h. 31m. 15.7s. This may of course be rejected after the days, which alone agree with the undoubtedly correct number.

2d Approximation: The average of the last 19 values, (*i. e.* of all but the undoubtedly incorrect ancient Egyptian value) is 365d. 5h. 17m. 15.7s. which is also rejected beyond the minutes. The failure to accord beyond this point is undoubtedly due to the far too great values of Meton and Calippus.

Third Approximation: The average of the 17, (*i. e.* all) that agree as to Days and Hours, as fixed by the above approximations, and which is accepted to include minutes, since it accords with at least twelve authorities therein, is 365d. 5h. 48m. 22.74s.

Fourth Approximation: The average of those (*i. e.* 12) which agree as to Days, Hours, and Minutes, the which are in accord with the third approximation as to those several elements is 365d. 5h. 48m. 51.35s.

Now as to this final approximation we are still left in natural doubt as to the exact number of *seconds*, for no one of the authorities agree with the seconds as resulting from this approximation, nor do any two of them agree as to a value among themselves.

It is thus clear that so-called "Modern Science" is not yet sure of the year value beyond minutes. However it is reasonable to infer, from the above and final approximation, that the value in seconds, to be added to 365d. 5h. and 48m., will *not* eventually vary, to the amount of one full second from the number assigned in this approximation, to wit: 51.35s.

That is we may be almost confident that the "seconds" value will lie somewhere between 50.35s and 52.35s; and, moreover, from an inspection of the "seconds" value as resulting from the *Third* approximation, which is considerably less than 51.-

35s., we may, with equal justice, conclude that the true value will be less than 51.35s., rather than greater.

Now we must settle upon some "seconds" value, even for an approximate test of Mosaic accuracy, and therefore, for this purpose, shall take the year to be, in its absolute Mean Solar length, as follows ;

365 Days, 5 Hours, 48 Minutes, 50.885 Seconds.

This value, it will be noticed, is *within* our limit of "1 second," as assigned by the Fourth approximation, and leans toward the lower value, as indicated by Approximation Three. That is, it is .473 of a second less than the central point of the closest approximation we have been able to make, and is also in the direction indicated by the trend of the latest Astronomical calculations.


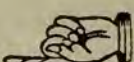
Now it is but just to state here that the value taken is *not* an approximation, nor has it been assumed arbitrarily, nor, in any sense of the word, in view of results we are aiming at. This value of the mean year is an absolutely Scientific one, is *not* our own, has resulted from a close consideration of certain mathematical principles *entirely independent from any* which have governed in the deduction of the above tabulated twenty "authorities," and as such is entitled to the peculiar weight which we accord to it.

As far as individual "authorities" are concerned, Modern Science cannot with any confidence or show of reason, pronounce it either too small or too

great; and so far as approximations are concerned it is well within the most reliable limits which may be assigned.

Inspection, moreover, will show that it lies within .115 seconds of Dr. Dick's value, the which latter would probably have come still closer thereto had the doctor's decimals been carried out some three places further.

For the present, however, I shall content myself by stating my reasons for accepting the Mean Solar year value at 365d. 5h. 48m. 50.885s. in the following logograph: *

 roitradsiotistldoolootstrsastrcrloplteoor. 

And I assert here, that I do not believe this value is in error in Seconds, Thirds, or Fourths, and that I am prepared in due time to give my reasons as conveyed in the above enigma. (*Vide* Chambers' Astronomy, Book I. Saturn, Page 124.)

In the meanwhile it is so close to those of Walther, Delambre, La Place, and Chambers, that Modern Science cannot fairly criticise my choice, nor, inveigh against my right to make it.

* 4,777,773, We repeat this enigma or logograph (in an alphabet which is concealed in the pages of this Study), to wit:—Appendix p.

And will present the first person who solves it with a complete set of all the volumes advertised herein, that is with the First and Second Series of Our Race, (8 Studies) Yale Mil. Lec.. Strategos, An Important Question, Facts, Fancies, Legends, and Lore of Nativity, Instruction in Guard Duty, and the Laws of Athletics For the Author Our Race Publishing Company.

Our line of investigation, therefore, confines itself as follows: (1) the first part of the present study is devoted to a study of the "Scientific Spike" in the United States, and to the question of the extent to which the "Scientific Spike" has been a factor in the development of the United States. (2) The second part of the study is devoted to a study of the "Scientific Spike" in the United States, and to the question of the extent to which the "Scientific Spike" has been a factor in the development of the United States.

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second month, the seventeenth day of the month, the same day were all the fountains of the great deep broken up, and the windows of heaven were opened"—

And for the *end* of the Flood—to wit :

“And it came to pass in the six hundred and first year * * * and in the second month on the seven and twentieth day of the month was the earth dried.”

Indicate upon their face that Moses had a *system* of Chronology, that the sequence was the same as the one followed throughout his writings and was the one in actual use by those to whom he wrote.

The first references to this calendar are found in the first chapter of Genesis where the first seven *week-days* of “time” are specifically mentioned. The years of the Genealogies begin with this first week of the first month and, so far as years are concerned, run down without a lapse to Noah’s 600th and 601st years.* Hence it is plain, as Noah’s 600th year was the year 1656 A. M. *i. e.* of “the Genealogies,” and his 601st year, the year 1657 A. M., that we may test his accuracy, if we have the patience to do so, by counting even the days, arranging them in weeks and months, and then studying the fitness of the result.

As we have already shown this has been accomplished by the British Chronological Association in so far as the general calendar is concerned, and we

* And of course beyond, but down to these dates alone concern our present Study.

are about to verify their work upon an independent line.

It is not sufficient to show that Moses had a system, and a consistent system, in so far as his own writings are concerned, but it is essential that this system shall be proved to be the true, and only accurate system.

Chronology was Civil from Adam to Moses. Noah's dates are therefore to be found upon the Civil Calendar. If the Flood had occurred after the VIIth month of the year 2513 A. M. (date of the Exodus) we should expect to find them upon the Sacred Calendar.*

Now it is a far simpler thing to test Noah's accuracy than a superficial reading of the Flood-account at first suggests. The process is as follows:

*All the dates in the Bible subsequent to the Exodus, are to be found upon the Sacred Scale only; *i. e.* upon the Calendar which begins at the New Moon of the Spring Equinox, rather than upon the one which commences at New Moon of the Autumnal Equinox. Nevertheless the Secular Chronologist must keep to the Civil Calendar, and because it was the original one (and is therefore the Backbone of History) and because the Hebrews themselves used both, although the Bible, a Sacred volume, naturally recognizes only the Sacred Scale. The VII month being that in which the Israelites left Egypt, it begins the Sacred year and is called the 1st month. In this way the 12th Civil is the 6th Sacred, and the 1st Civil the 7th Sacred Month. Example Dan. x. 4; "24th day of 1st month" was the Sabbath day, the 24th of the 7th Civil month of the year 3470 A. M.

For the New Testament dates, the Crucifixion was upon Thursday the 14th of Nisan, *i. e.* the 1st sacred or 7th civil month of the 13th year of the Hebrew Cycle, it being 4029 A. M., or 30 A. D., by the common Era. His body was placed in the tomb before sundown on that day, remained there Friday, Saturday, and until very early "in the morning" on Sunday, which was the first Lord's Day.

Noah kept Lunar time. This is not only manifest on the face of the-record, but agrees with the constant practice of the Hebrew branch of his descendants, who were its natural and direct inheritors. In other words, Moses, who established the later Hebrew system, carries it systematically back to Creation, thus spanning the Flood, whose dates must therefore agree with the demands of accurate astronomy if they are correct.

Upon the basis, therefore, that the Antediluvian Calendar if accurate, was conducted upon as sound principles as we of modern days could have conducted it ourselves, and limited as to the special methods of intercalation which we know Moses instituted, let us examine the Ancient Hebrew Lunar Calendar, as adjusted to keep mean solar time.

In the first place we must accord an absolute prominence to the septenary sequence of the days. This was in no wise to be broken or ruptured. The Seventh Day was sanctified and made holy by the Almighty in the first week of time. Hence whatever system the Ancients had, it never lost sight of the Sabbath.

“Those who reject the Mosaic recital will be at a loss,” as Delambre remarks, “to assign to it (*i. e.* the week) an origin, having much semblance of probability.” (Brit. Ency.)

Naturally therefore, as we are about to test the accuracy of Moses upon his own premises we must accord the first degree of prominence to the con-

dition that the succession of 7th Days shall not be interfered with in any scheme of Soli-Lunar Chronology which we may be led to believe was possibly used.

But as Moses kept Lunar time, and yet endeavored to rectify it to Solar time, at stated intervals, let us quote what the British Encyclopedia considers the difficulty he had to face. Referring to Lunar Chronology or to the length of a lunation as a measure of duration the Encyclopedia Britannica says :

It is "so obviously ill-adapted to the computation of *time*, that, excepting* the Modern Jews and Mohammedans, almost all nations who have regulated their months by the moon, have employed some method of intercalation by means of which the beginning of the year is set and at nearly the same fixed place in the seasons."

CYCLE A.

Now if Moses undertook this difficult task of keeping time by the moon, using 12 lunations of alternately 30 and 29 days each for his Lunar year, as he taught his followers to do, and if this system was carried by him back to Creation then his lunar year consisted regularly of 354 days, and ended

* We fail to see the force of the exception as to the Modern Jews who still intercalate. The Mohammedans, however, do not. Here is just where Mohammed shows *his* cloven foot, for his method not being scientific could not have been *Divine* !

short of true solar (mean) time by 365.242255610 etc. — $354 = 11.24225561021$ etc. days.

Hence, as our primary condition is that the Septinary period of the *week* shall not be broken, these 11 and a fraction days “waited,” and at the end of two years were 22 and a fraction; and so on they waited from year to year, until as to the whole number of days they were an even seven, or multiple of 7, at the termination of some particular year.

This occurs first at the 7th year’s termination, 6 a. m. when $354 \times 7 = 2478$, and $7 \times 11 = 77$ *i. e.*, 11 weeks. At this point, therefore, 77 days could have been intercalated, without disturbing the septinary sequence of the days.

Such an addition to the 7 lunar years would approximately adjust the calendar to solar time. Thus, $2478 + 77 = 2555 = 365$ weeks! And a new 7-year cycle could recommence in “self-same” order.

But, in the meantime, the perpetual “excess” of $.24225561021$ + days (a decimal of persistent and incommensurable value) would have been growing, by constant additions of itself, from year to year, no part of which is contained in the 77 days intercalated.

CYCLE B.

Now in 203 years this amounts to 49.17788886263 etc. days; hence, as 49 days = 7 weeks, another special intercalation could be effected.

Of course, in the meantime the 77-day intercalations have been regularly proceeding.

Now the Calendar bears internal evidence that these 49 days were intercalated at seven separate and subordinate periods, one week being added at the end of each. We give an example below of these subordinate periods, and it is to be noted that just as seven years (the Cycle A) may be termed a "week of years," so 203 years or 29 cycles "A" may be termed a "month of Septenary Cycles."

Cycle " B. "				A.M.	Astro.	Intercalate.	
				0			
1.	4×7 years	= 28 years,	brings us to	27 or 28.	7 extra days		
2.	4×7	" = 28	"	55 "	56.	7	"
3.	4×7	" = 28	"	83 "	84.	7	"
4.	4×7	" = 28	"	111 "	112.	7	"
5.	4×7	" = 28	"	139 "	140.	7	"
6.	4×7	" = 28	"	167 "	168.	7	"
7.	5×7	" = 35	"	202 "	203.	7	"
<hr/>				<hr/>	<hr/>	<hr/>	
	29×7	" = 203	"	202	203.	49	"

We have designated Cycle " B " as a " month of Cycles A," but it is also manifest that it may be regarded as subdivided into 6 " days " of 28 years each, and a final or Sabbatic day of 35 years. From this standpoint it is also a " week " of a still higher order. And it may now be understood how naturally Daniel, giving himself to know the " times and seasons," and couching his predictions in apparently occult terms, was in reality dealing—with a systematic sequence, not at all unintelligible to such as understood the Calendar.

CYCLE C.

But to continue our investigation : Let us suppose that the first Cycle " B " has terminated. There will then have been " scored off " on the Calendar 203 Lunar years of 354 days each, 29 intercalations of 77 days each, and 7 special intercalations of 7 days each, and there will remain, as a terminal excess, 17788886263 etc. days, which will represent the growth of the unprovided for difference of Solar and Lunar time during 203 absolutely accurate mean solar years. That is, as we are still keeping Lunar time, and must recommence our Cycles " A " and " B " at the sundown which completes the last intercalation, we will recommence our count .17788886263 etc. days too soon !

Now, from the very nature of the case, the growth of our fractional excess is *interminable*, and nothing short of absolute accuracy will keep our record straight. The termination of every additional Cycle " B " will throw us still further *ahead* of true Solar time, and we must provide for its correction. Hence the necessity of a Cycle " C."

It requires but a very simple solution of an elementary problem to determine the length of this new cycle ; for if at the final intercalation for Cycle " B," there remains an excess of .17788886263 etc. days unprovided for, it follows that it will need 40 such cycles to bring this " excess " up to even a single week. Thus $(.17788886263 \text{ etc.}) \times 40 = 7.11555450520 \text{ etc.}$

Therefore, as 40 times 203 is 8120, at the end of 8120 years, or a Cycle "C," we may intercalate an extraordinary week, and would then, if our system had been rigidly kept from Creation, be ahead of mean absolute solar time but .11555450520 days. This "excess" represents a growth of .000014230794 etc. of a day per year, or indicates that it will be 100,000 years before the remnant will be more than 1.4230794 etc. days! And so the process may be continued *ad infinitum*. But we shall not at present consider it beyond Cycle "C," which from its dominant divisor 40, may be termed a Period of Rest.

Now it is manifest that Noah and Moses, in so far as *Deluge* dates are concerned, did not have to take any cycles of a higher degree than Cycles "A" and "B" into consideration. For the primary Cycle "C" was not one-third exhausted when the Flood year came. Nevertheless, his Chronology must have included the "roots" of this excess or it was not "perfect," the which term we use in a sense similar to *Divine*, and his *dates* will unerringly reveal to us whether it did so or not.

THE CALENDRIC SYSTEM.

Finally, it matters not, as to the outcome of our discussion, whether his system of intercalation was exactly what we have described as possible or not, so long as the dates of Moses shall prove themselves to have been kept accurately *Solar*.

But that it was this very method, and founded upon the true value of the mean solar year the climax of our studies will clearly establish. We may now recapitulate our data as follows.

Cycle "A." = 7 Lunar years,

and at its expiration an intercalation of 77 days

Cycle "B" = 203 Lunar years,

and at its 7 Subordinate expirations, intercalate 7 days, or in all, 49 days

Cycle "C" = 8120 Lunar years,

and at its expiration an intercalation of 7 days.

&c.

&c.

&c.

&c.

Final excess at end of Primary Cycle "C"
.11555450520 etc. days.

It is to be noted that these cycles are simultaneous, not successive, but are all at work at once!

Let us now apply this rigid test, the very best that modern science can put, to Noah's calendar, *i. e.*, his ordinary Lunar Calendar or "almanac," and see if it agrees, as to its dates, with what modern hypercriticism demands of it.

Solar year 1657 (*i. e.*, as to Astronomical duration from Creation) the year of the Flood from its beginning, to its final instant, and all of which year was spent inside of the Ark, falls in the middle of the 237th Cycle "A."

In other words, 236 complete 7-year Lunar Cycles were ended and fully intercalated at the termination of Astronomical year 1652, and in the 237th Cycle "A" there were five lunar years, to wit: 1653, 1654, 1655, 1656, and 1657, in order to bring us down to Exit-day.

It is also clear that as 203 will divide 8 times into 1657 and leave 33 as a remainder, there were 8 complete Cycles "B" from creation to 1624, and one-seventh of a Cycle "B" from 1625 to 1652 (both included *i. e.*, 28 years) and the five years 1653, 1654, 1655, 1656 and 1657 left, and for which intercalation was due.

Now down to 1652 the Calendar must have been complete, *i. e.*, fully "scored off," and accurately intercalated.

But none of the intercalations *could* have taken place for these five subsequent years, because they were *not due* until the *end* of the Cycle "A" *in which* 1657 falls!

Hence, if Noah was correct, we must expect to find his Lunar dates ahead of Solar time by just the amount of intercalation which was proportionately due upon every Cycle at the moment of exit—and *this is exactly what we do find!*

DEMONSTRATION, PART I.

DAYS.

(a.) Down to and including sunset, or the termination of the last day spent in the Ark (Gen. viii. 14.) there had been as we have shown 1657 complete Lunar years of Chronology. These make 236 full 7-year Cycles "A" and leave 5 years to be considered later. Hence $236 \times 7 = 1652$ Lunar years at 354 days each, - - - = 584,808

Carried forward, 584,808

DAYS.

Brought forward, 584,808

(b.) 1652 Lunar years intercalated at 11 days each, or 236 Cycles "A" at 77 days each to fetch them so near as possible in accord with mean Solar time, and still preserve the sacred sequence of the week demand, - - - - - = 18,172

(c.) Eight Cycles "B", (*i. e.* 8 (29 × 7) or 1624, which therefore brings us down to Astronomical year 1624 inclusive, and for each of which Cycles we must intercalate 49 days or 7 weeks,) demand, - - - = 392

(d.) One seventh of a Cycle "B", *i. e.* 28 years = 4 × 7 years, since as we have shown this Cycle regarded as a "week" had its seven separate intercalations at the end of each of its "days," brings us to 1652, and thus requires the intercalation of an additional week, which Noah therefore must have scored off. Hence add therefore this special intercalation, - - - - - = 7

(e.) The total number of days, from "Evening to Morning" (*i. e.* from sunset *via* midnight to sunrise, and from sunrise *via* high noon to sunset again), and each of 24 mean Solar hours duration, scored off by

Carried forward, 603,379

DEMONSTRATION.

103
DAYS.

Brought forward, 603,379

Noah and his ancestors from Creation down to the last day of 1652 inclusive. No more could have been, and this number must have been, as the climax of our calculation fully demonstrates is therefore, - - =603,379

There remain now to be considered the five (5) Lunar years, 1653, 1654, 1655, 1656, and 1657, in the unintercalated Cycle "A" which contained the Flood, and which years terminate at, and include, the last Solar day spent in the Ark.

DEMONSTRATION CONTINUED. PART II.

(f.) Already accounted for, and therefore brought forward as past time (see *e.* above.) - - - - - =603,379

(g.) Add now five Lunar years, to wit: 1653, 1654, 1655, 1656, and 1657 at 354 days each = 1,770

(h.) Add now Noah's own date of the "last day" spent *in* the Ark (Gen. viii. 14), noting that as the 1st Lunar month consisted of 30 days, and this specified day was the 27th of the 2d month, it must have been the 57th day of a new Lunar year, by

Carried forward, 605,149

	DAYS.
Brought forward,	605,149
which amount Lunar time was therefore, at its close, ahead of the true Solar record !	= 57
	57

(i.) Total number of Sunsets, from Creation to that which ushered in the last full day spent in the Ark, the which last full day is herein included, and in its last instant it being itself the 57th day, and representing, *ipso facto*, the amount of intercalation then due, so far as whole days are concerned, - - - - - = 605,206

At this instant mean Sunset occurred (our mean 6 o'clock p. m. as it was at the Autumnal Equinox, the Universal New Year date of the Ancients and the only Scientific one,) and the 605,206 days from Creation were complete, and a new one trembling upon the horizon.

Now before we proceed further in our investigation of this consummately accurate record let us examine the number 605,206. It is first to be noted that it is exactly divisible by 7, giving the complete quotient 86458. This shows that the 57th day of the Lunar year under consideration was a Sabbath day, and that a complete number of "weeks" were *over*.

Now the exit took place after this 57th day was ended, and therefore in the 605207th day from Creation, which was therefore a First day of the

new week, or the 58th day of the new Lunar year then running, and running be it remembered *in lieu* of intercalation !

Now Noah's record gives us the date only as to whole days, and it is correct, because our 605206th day, as per modern requirement, agrees with Noah's, and his 605207th, or day of exit includes *our* most exacting fractional excess, and at some time after sunset, or after the new week, and day commenced Noah left the ark with his family.

QUERY.

Was he on time? That is, was he absolutely instantaneous with the moment of true Solar new year?

We believe he was, and our reasons are as follows: First. He is so wonderfully accurate as to days, a thing which only such a scrutinizing calculation as the one we have been through can possibly demonstrate, that it requires no additional surprise to find him accurate to the hour, and minute, and second. The story claims to be "*inspired*," and thus far it has justified its claim, in that modern science is impotent to account for even the foregoing degree of minute exactness, nor did it ever dream of it to the point of even testing it. So completely has this story of the Deluge been regarded as a mere "legend," or at best as true only in broad outlines, that any idea of its being accurate as to all of its astronomical features does not seem to have seriously suggested itself to any one. The fact is

modern thought seems to scout the very possibility of the antediluvians possessing any knowledge which would bear the test of scientific scrutiny. Away with the blasphemy that *such* "time keepers" were a "shivering set of skin clad fish mongers, dwelling in caves and with 'the missing link' for their unknown ancestor!"

Second. Upon ordinary common sense principles it is unreasonable to suppose that having remained confined in the Ark 365 full days, the which terminated at *night fall*, Noah would have attempted the exit, which was to usher in such arduous labors as the unfreighting of his Ark *at such a time!* He could only have commenced it to have had darkness interfere, since not even "*moonlight*" would have favored him long.

Third. Upon the other hand, it is naturally reasonable that he would have left the Ark so *early as possible* in what we would call the next day, *i. e.* around about the "dawn" of what we would call Sunday morning, but what to him would be merely some hours after the first day of the week had begun, and that a *working* day!

Fourth and finally. But the Almighty himself had a *dominant* part to play as to this moment of exit, and not only upon general principles, (which, during a fair consideration of the record we must carefully allow,) would certainly have been accurate, but upon the special consistency of the account itself, did take this matter into his own Hands.

THE DOOR-KEEPER!

Our reasons for announcing this *internal agreement of the account* with our present claim that God did ordain the moment of exit to agree with absolute Astronomical requirements are as follows:

(a.) If Jehovah had aught to do with it, then a philosophical estimate of Him who is accuracy itself, and who had wound up the Cycles in the Beginning, demands that He would have perceived, and seen to the full fitness of harmony, equally with us his creatures who expect it. And it is certain, were this harmony lacking, that sooner or later it would be lifted up against the record as conclusive evidence that it *was not*, and *could not be*, Divine!

(b.) Genesis viii. 15, 16 (since we are dealing with the consistency and agreement of the Record itself), implies that Noah *waited* until directed by God himself to go out, and that God *did* speak “unto Noah, saying, Go forth of the Ark, thou, and thy wife, and thy sons, and thy sons’ wives with thee.”

(c.) And superlatively, from the present standpoint of our reasoning, verse 16, chapter vii, implies that Noah *could not* go out, under any circumstances, until “the Lord,” who “shut him in,”—*saw fit to let him out!*

Now, throughout this remarkable story, (and whose internal consistency is absolutely beyond cavil), it is noticeable that Noah had no control over the “door” of the Ark. Beyond its original

construction, as a necessary part of the Architecture, his powers did not extend. It was God who "SHUT him in," and what God hath closed none but God can open, if there be logic left in human reason.

Hence (viii. 5) Noah "sees" the tops of the mountains (of Ararat) at length, through the window; later he "opens" the window (viii. 6); still later he commences to demolish the "covering" (roof) of the ark (viii. 13), 62½ feet above the ground, and with it (according to the general impression of such as have studied this subject deeply, and who certainly have a better right to instruct than those who have no knowledge as to the collateral evidence, traditions, etc.), and with it, we repeat, probably the window itself,—a "skylight," we believe, and a part of the covering, was also removed!

But never a word about the "*door*." And *naturally* none, in view of Chapter vii. 16!

Now Noah as naturally did not clamber down the 62½ feet high *outsides* of the Ark, and land amid the wreck and debris of the covering! All that he had with him waited till the door was opened, and through it, in a due and orderly manner, the exit took place.

Therefore, it is logically necessary, we having undertaken to force this discussion to its legitimate and accurate issue upon the Mosaic premises, to pursue the matter still further than the sunset-anniversary beginning of the 605207th day to which

we have traced Noah's calendar, and find out at what absolute moment he would have gone out if God opened the Ark and enabled him to do so "on time!"

And, thereafter, we may judge whether it was; as to human ideas of fitness and convenience, *in harmony* with what he, Noah, had to accomplish thereafter, and whether the hour which science shall demand for the exit was a more suitable one than that of deepening nightfall.

But first let us proceed with the main body of our

DEMONSTRATION. PART III.

DAYS.

(i.) Time already accounted for and brought down *to* the Sunset beginning of the week day of Exit was, - - - 605206.

(k.) The unknown part of the next or 605207th day spent in the Ark, and necessary to make the moment of exit agree exactly, so far as modern science can determine with absolute Solar instant, (and in which $\frac{d.}{m.}$ is a fractional part of a day expressed in hours, minutes, seconds, and parts of seconds is - - - - -

= $\frac{d.}{m.}$

(l.) Total time between Creation's primeval Sunset, according to the Calendar, and Noah's moment of exit from the ark, after Sunset in the 605207th day and before that day had ended, - - - = 605206. $\frac{d.}{m.}$

Now, to determine the Scientific value of $\frac{d}{m}$, and thence the hour and moment of exit, so as to pronounce upon its fitness let us return to a consideration of the principles upon which the Antediluvian Calendar has demonstrated (by its own internal evidence and agreement with Noah's dates), that it was based.

DEMONSTRATION. PART IV.

(*m.*) Since the yearly excess has been shown to be, as to the smaller Cycle, ("A"), the decimal part of a day .242255610621 + etc., and since we have seen that this led to a Cycle "B" at the end of which (203 years) the excess amounted to 49 whole days and .17788886263 etc. parts of a day, and since between the Primeval Sunset, and that of the 605207th day there were 8, and $\frac{33}{203}$ ds of a Cycle "B," therefore, it follows that there must have been $8\frac{33}{203}$ times 49.17788886263 etc. days to be accounted for, either by intercalation upon the basis of Cycles "A" and "B," or else left unintercalated, and, therefore, involved in the Solar time of the true moment of exit, as recorded.

$$\text{Now } (49.17788886263 \text{ etc.}) \times 8\frac{33}{203} = 401.4175$$

(*n.*) But from this we must deduct
 $392 + 7 = 399$ days already intercalated, and accounted for as per c, and d, Part I, of this Demonstration — 399.

(o.) which leaves, as the quantity to which this "excess" had grown by that time and sunset. - - - = 2.4175

(p.) Now the amount of intercalation due at the end of 5 years so far as Cycle "A" is concerned is 5×11 days (*i. e.*, for 1653, 1654, 1655, 1656, 1657,) = 55.

(q.) which added to the above general excess, gives us the absolute moment of Exit after the new Lunar year began, so far as Noah's Calendar is concerned, *i. e.*, - - - = 57.4175

(r.) But from this quantity we must deduct the full number of complete days expressed in Noah's last date of a full day spent in the ark, to wit - 57.

(s.) which, therefore, leaves the time Noah must have been forced to wait in the ark, after sunset, ere he was *allowed* to come out of the Ark in obedience to the command of God. Gen. viii. 15, 16., *i. e.*, if all parties to the matter acted in harmony with the Cycles, as the record fairly implies they did. .4175

DEMONSTRATION. PART V.

(t.) The general verification of the accuracy of our modern figures, appears from the fact that 1657 complete Solar years at a mean value of 365.242-

25561021 etc., is 1657×365.24225561 -
 021 etc. : - - - - = 605206.4175

(u.) From which, if we deduct Noah's
 full days as borne out by his system of
 the Calendar and his date of last day in
 the Ark - - - - - - 605206.

(v.) Leaves, (as above by the Calen-
 dric system itself) a certain $\frac{d}{m}$ part of a
 day yet and also to be spent in the ark,
 to wit, as above - - - - - .4175

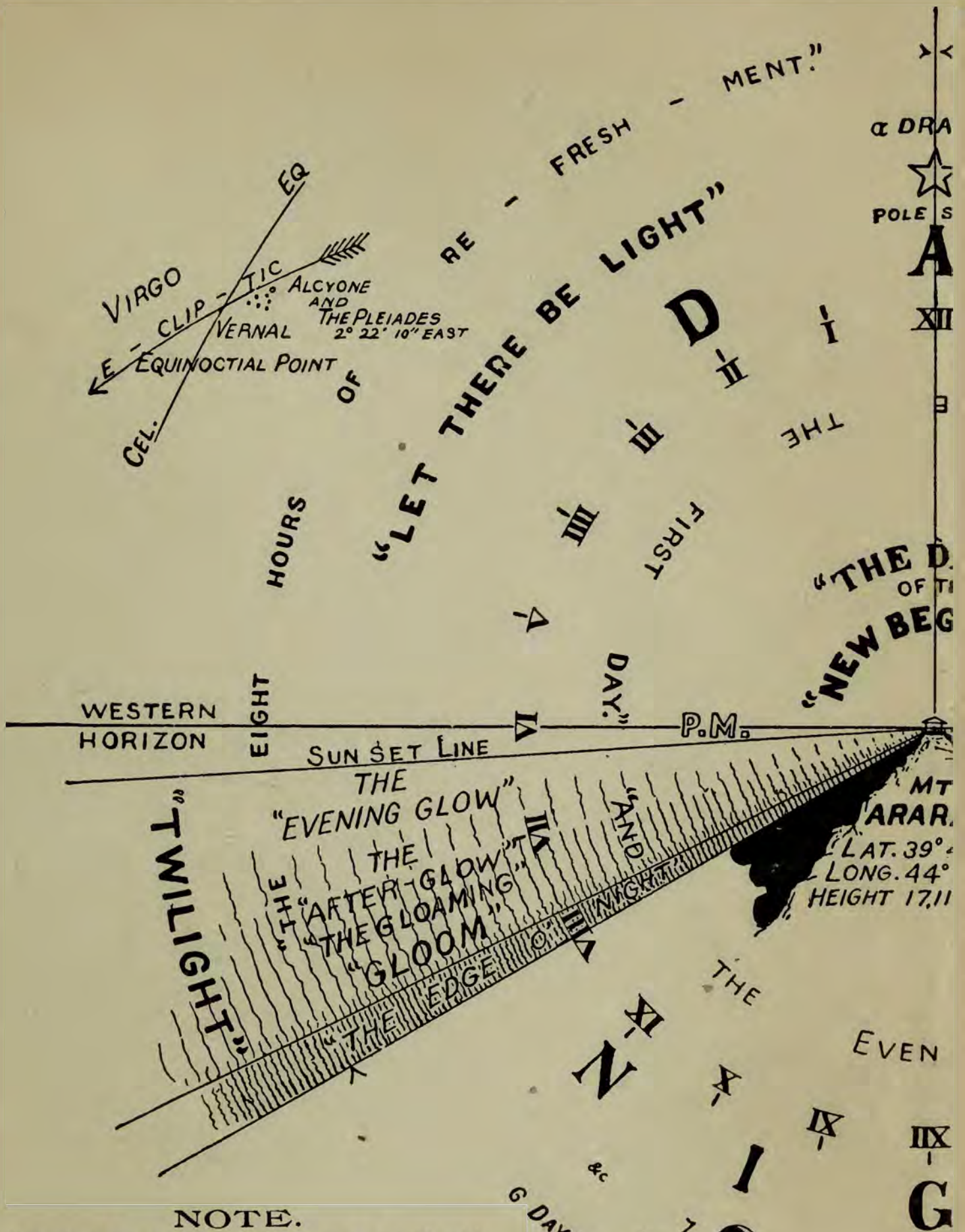
Now, this decimal part of a day (to wit,
 .4175611797 +) reduced to "mean Solar time" such
 as *we* now-a-days "keep" by our chronometers, is
 equal to 10 hours, 1 minute, and + 15.983152608 +
 seconds. This required the Exit to have taken
 place "at 1 minute and 15.98 etc. seconds past 4
 o'clock a. m. on Sunday morning," as we would put
 it in modern parlance, and the original query is
 ready for its answer.

Was it a suitable hour? *i. e.* was it in harmony
 with the requirements of the undertaking?

We opine that none will disagree with us in
 asserting that the hour could not have been chosen
 better, *i. e.* could not have *happened* (!), as we may
 say, more opportunely.

We shall have occasion, later on, to consider the
significance of this result, even down to its appar-
 ently ragged minute and 15.9+ seconds over the

The TRUE ASTRONOMICAL DIAGRAM of "THE THREE BOL"

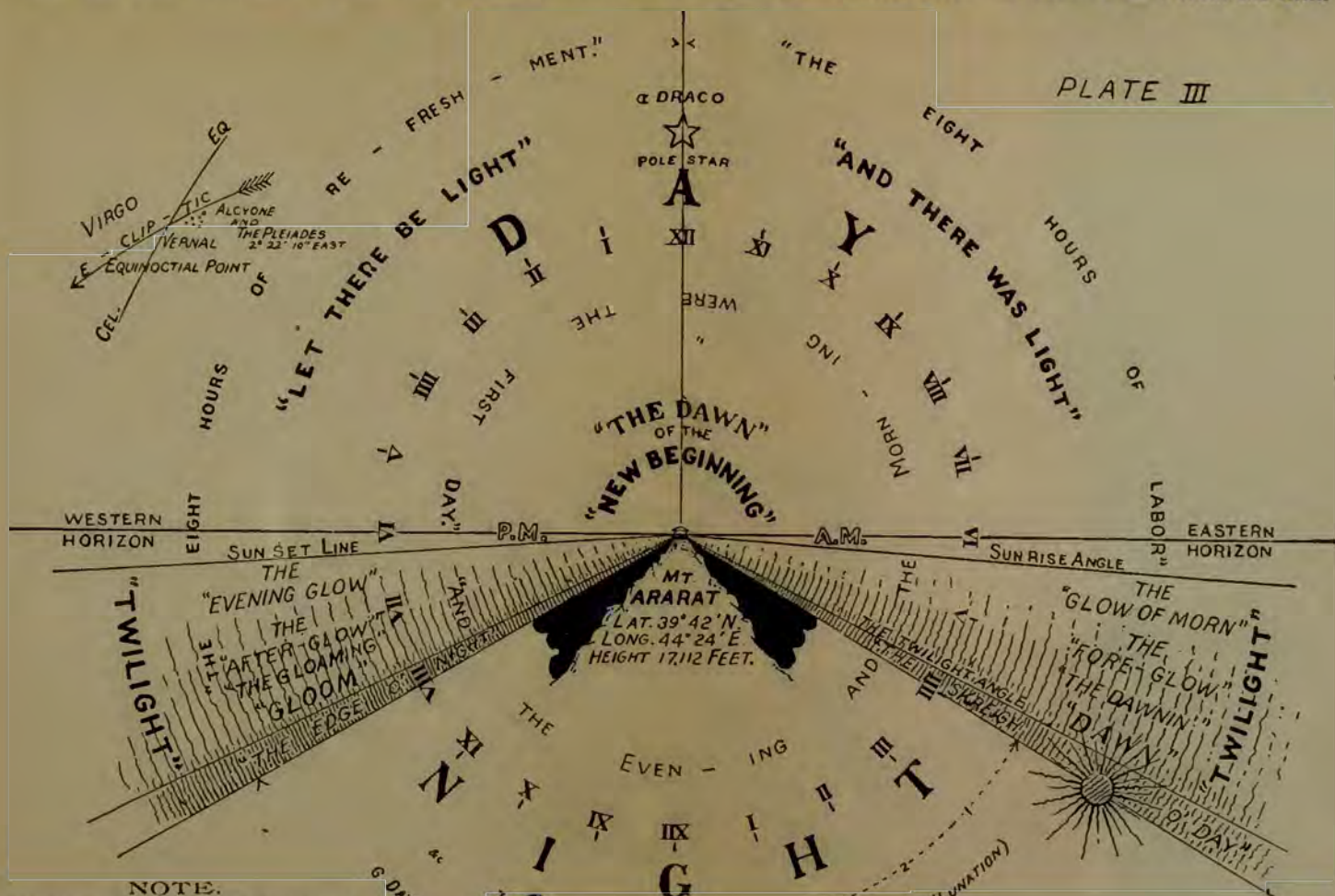


NOTE.

"Very late in the evening," as to Noah's Ordinary Calendric time. At the "Skreigh o'Day," as to Apparent time. In the eleventh hour, as to Hebrew time. At 1 min. 15.98 + sec. past 4 A. M., as to Modern time. At the first instant, of the first second, of the first minute, of the first hour, of the first day, of the first week, of the first month, of the first Solar year after the Flood, as to Mean Absolute time. i. e., At Autumnal Equinoctial instant, as to Astronomical and perfect time. "Very early in the morning," as to modern common parlance. At the most fitting hour in the 24 as to practical suitability for the commencement of an arduous undertaking, requiring the longest possible continuous effort.

6 DAYS, 12 HOURS, 55 MINUTES, 1.59 + SECONDS
 "THE MOON" WAXING INTO
 "THE YEAR" AFTER C
 EIGHT

The TRUE ASTRONOMICAL DIAGRAM of "THE THREE BODIES" at the "INSTANT" of NOAH'S EXIT from the ARK.



NOTE.

"Very late in the evening," as to Noah's Ordinary Calendric time. At the "Skreigh o' Day," as to Apparent time. In the eleventh hour, as to Hebrew time. At 1 min. 15.98 + sec. past 1 A. M., as to Modern time. At the first instant, of the first second, of the first minute, of the first hour, of the first day, of the first week, of the first month, of the first Solar year after the Flood, as to Mean Absolute time. I. e., At Autumnal Equinoctial instant, as to Astronomical and perfect time. "Very early in the morning," as to modern common parlance. At the most fitting hour in the 24 as to practical suitability for the commencement of an arduous undertaking, requiring the longest possible continuous effort.

THE RISING SUN

AT THE
"NEW SOLAR INSTANT,"
1637 A. M. or 1658 Astron.
i. e.
1 minute and 15.98 + seconds
Past 4 o'clock A. M.
ON THE
605205th Day after "Creation."
Mean Absolute Time,
605206 4175 Day.

even hour of 4 o'clock a. m., but at present let us examine the purely astronomical conditions surrounding this moment, and see if they were favorable or unfavorable to such an early start ?

DEMONSTRATION. PART VI.

The fact is there were *no* unfavorable conditions, as to the relative positions of the three great bodies, Sun, Moon and Earth, two of which were originally set to govern the day and night, and the other the one on which the transaction was taking place.

First. It was a *New* Earth. (2 Pet. iii. 7.)

Second. The New Sun was about to rise, and usher in a new year, for this ancient year, upon the same principle that governed the individual day's beginning, commenced, as it were, at the Annual Sunset, *i. e.* *after* the sun had passed across the ecliptic, or through the Autumnal Equinox. (It was our Autumnal Equinox and "very early in the morning." Yet it was "in the evening" according to the system of Genesis.)

Third. It was at the astronomical commencement of a new week of work, whose six full periods of labor stretched out before Noah in all their hours of light.

Fourth. It was, of course, per implication, a new day, and month, and all things else so far as real mean Solar time, and the astronomical cycles were concerned. For it must now be fixed sharply in the mind that although the year had *nominally*

closed at the sunset of the 605,206th day, and the new one began thereat, this was *not* its astronomical beginning, but rather was this moment, now under our closest mental focus, the true and auspicious *instant of beginnings*.

Fifth. It was such a moment as a general would have chosen, as skilful generals always have chosen, whereat to commence important undertakings, a moment of the "day" which best favors the longest consecutive and unbroken pursuance of a task of similar magnitude.

Sixth. The very Moon, as to its age and phase, favored the undertaking from this standpoint, for it was about to enter into its *new* first Quarter, and thus its light would help to prosecute the closing operations of the first day's arduous enterprise well into the succeeding night, if necessary, and so increase from night to night, throughout that busy week. For it must be manifest that while an early moon, *i. e.* a western one, would not be favorable for a night enterprise, (*i. e.* one commencing at sundown), since it would be setting as the work progressed, it would, upon the other hand, be most favorable for the finishing prosecution of each successive day's work, for its light would serve, as it were, to prolong the day until its tasks were fully ordered for the hours of rest.

Seventh. It was high up upon "the Mountains of Ararat," and thus at a correspondingly early "Skreig o' day"! At such an elevation, 17,112

feet above the natural level, the "Fore Glow" of the "Dawnin'," (which even at the foot of the mountain, for that season of the year afforded a *morning twilight* of about 1 hour and 24 minutes duration *before* sunrise), was at the instant of exit actually "moving upon the face" of the horizon. There was light from then on, increasing unto noon, and prolonged after sunset by a growing moon!

Eighth. In fact, the way in which the astronomical circumstances conspire to enhance the harmony of nature at this instant is beautiful almost beyond our perfect grasp. It was the hour at which, both as to the season of the year, and that of the twenty-four hours, the Zodiacal Light is most brilliant in its sun-heralding capacity. Thus

All the East was quick with coming morn.

DEMONSTRATION. PART VII.

But let us examine the position of the Moon critically, for thus far Noah's Calendar has not betrayed its position, phase, or age. Indeed, it is only by careful calculation, (but "as simple as Division") that we may fix the absolute position of the orb which "rules the night."

Modern science is far more certain as to the mean absolute length of the lunation, than of the Solar year, for our opportunities to observe these two phenomena are in the ratio of 235 to 19, thereby insuring greater possibility of accuracy. Now a

lunation, as to mean Solar time lasts 29.53058843-23806825190 + or 29 days 12 hours 44 minutes, 2 seconds, 50 Thirds and 31 Fourths.

12 Lunations, or a so-called Lunar year, *i. e.* astronomical, are 354.3670611885681902352 + days.

Hence it is manifest that by considering the Lunar year to be exactly 354 days long, (a merely Calendric matter, and similar to our taking a Solar year at 365 days) a very large fraction was disregarded. But this did not stop the moon nor alter the regular sequence of *her* phases.*

And herein we are awakened to the realization of a new fact in this ancient Chronological System. Noah's 1657 recorded "Lunar" years, were made equal to 1657 accurate Solar years (*i. e.* accurate as to whole days) by means of consummate intercalation.

Thus Noah's "years" were strictly "Almanac" or "Chronological" periods and had to do with the phases of the moon,—which kept her own periods while he kept his Calendar—only at long intervals.

And on due consideration this becomes clearly necessary when we give full lunar weight to the days of intercalation! It is to be remembered that these were systematically *dropped* in order to keep apace with Solar time. Therefore in the meanwhile the moon moved through the Calendar with

* N. B. *aei, lll, 00000, rrrrr, ssssss, tttttt*. Subject to further explanation based on age of moon at Adam's Creation and expulsion and the reason of the change of the Calendar in 1722 A. M.—Ten Alcott.

systematic irregularity, if we may employ a term of deep and double significance. The necessity of this will be apparent by recalling to memory the excess due to Cycles A, B and C already discussed (see pages 95-100.)

As an absolute fact the moon had completed 1707 literal or Astronomical Lunar years since Creation, and at the moment of exit was in the 13th hour of the 7th day of the 11th month of her 1708th absolute year.

What therefore, had become of all this lunar time?

It is accounted for by the whole period of intercalation and Noah's own dates! the which is a parallel or collateral evidence of consummate accuracy in the Mosaic account.

(*w.*) To fix the mean absolute age of the moon at the moment of exit we proceed as follows: The date of exit in days and fractions of a day divided by the length of the Lunar year in days and parts of a day gives us 1707, with a remainder as follows, 301.844097232069268855 etc. days. This divided by the astronomical length of a single lunation, gives us 10, and a remainder as follows:—6.5382129082-624436590 etc. which final remainder is, in natural divisions of time, 6 days, 12 hours, 55 minutes, 1.59-58738751321376 seconds.

This, therefore, was the mean absolute age of the Moon at the moment of exit; or from Creation, she was 1707 years, 10 months, 6 days, 12 hours, 55 minutes, 1.59 + seconds "old."

She was therefore, 6 days, 12 hours, 55 minutes, and $1.59 +$ etc. seconds behind the Sun, *i. e.* “*following*” him, or, in modern “almanac” phraseology, was just entering her “First Quarter.” *

DEMONSTRATION. PART VIII.

It will now be interesting to devote a few minutes study to the determination of the instant of actual “*Dawn*” upon the Summit of Ararat on the morning in question. The Solution is a simple one and involves a surprise akin to that awakened by the results of our Dial of Ahaz calculation (See Study No. 2, Series I, page 61).

The “Mean” time of Sunrise at Autumnal Equinox is 47 to 49 minutes past 5 o’clock a. m.—That is 48 minutes past 5 a. m. less or more within a minute—for we have no right to squeeze this particular phase of our calculation down to its chronological ultimates.

Now we must apply the “Equation of time” to this result in order to obtain the moment of *real* sunrise—*i. e.* the moment which, by a scientific “bull,” astronomers call “apparent” time. This “Equation of time” must be *added* to mean time, and, for the day and hour of day under consideration, was about 7m. 30s. Adding it, therefore, to the 5h. 48m. already obtained we arrive at 5h. 55m. 30s. a. m.

* There is a close connection between the “Years of the Genealogies” and the moon’s phasis which we cannot discuss at this place.

But we are not quite right yet for this result must be diminished by another important correction. Absolute Sunrise so far as the astronomer is concerned means the coincidence of the Sun's *centre* with the horizon, but so far as the common man is concerned it means the appearance of the upper limb of the Sun at the horizon. This *anticipates* astronomic sunrise for two reasons—the time required for the semi-diameter of the Sun to *clear* the horizon, and the elevation of the Sun due to *Refraction*. They amount to about 4m. 30s. By this amount therefore the sunrise as seen by Noah was *earlier* and our calculation is reduced to 5h. 51m. a. m.

But there is still another correction to be subtracted owing to the elevation of the Ark (17,112 feet) above the level of the sea or actual horizon! This is called the “dip,” and amounts to some 11 minutes, by which, as viewed from the *summit* of Mount Ararat the correct time, in common parlance, of absolute Sunrise was earlier than at its base. Applying this final correction, brings us to 5 h. 40 m. a. m. In other words, so far as Noah and his companions were concerned, had the Ark possessed a reliable modern chronometer it would have indicated 5.40 a. m. at the moment of this auspicious Sunrise.

But the *Dawn* preceded even this event by at least 1 hour and 24 minutes for the latitude and time of the year under consideration! for this is

about the length of morning twilight at this season of the year for Ararat. Hence the "Skreig o' day," or "crack of dawn," was as near to 4 h. 16 m. a. m. as we can predicate. This was just about 15 minutes after the Exit, or moment of true Solar New Year, and gave the voyagers ample time—a quarter of an hour—to get out in good shape and shake themselves before the "flush of morn" came on the scene and bade them welcome to "the world that is."

Based upon the foregoing considerations let us now proceed to study Noah's Almanac, and write against its proper days the various incidents found in his Log-book—Genesis, Chapters vi. – x.

THE HEIGHTS OF HOPELESS REFUGE!
EVEN IF PERCHANCE REACHED
BY ANY OF THE LUCKLESS
ANTE-DILUVIANS



REFERENCES

To Scientific Data on left of scheme,
The Encyclopedia Britannica,
The Latest and Best Epitome of
Modern Science and Facts.

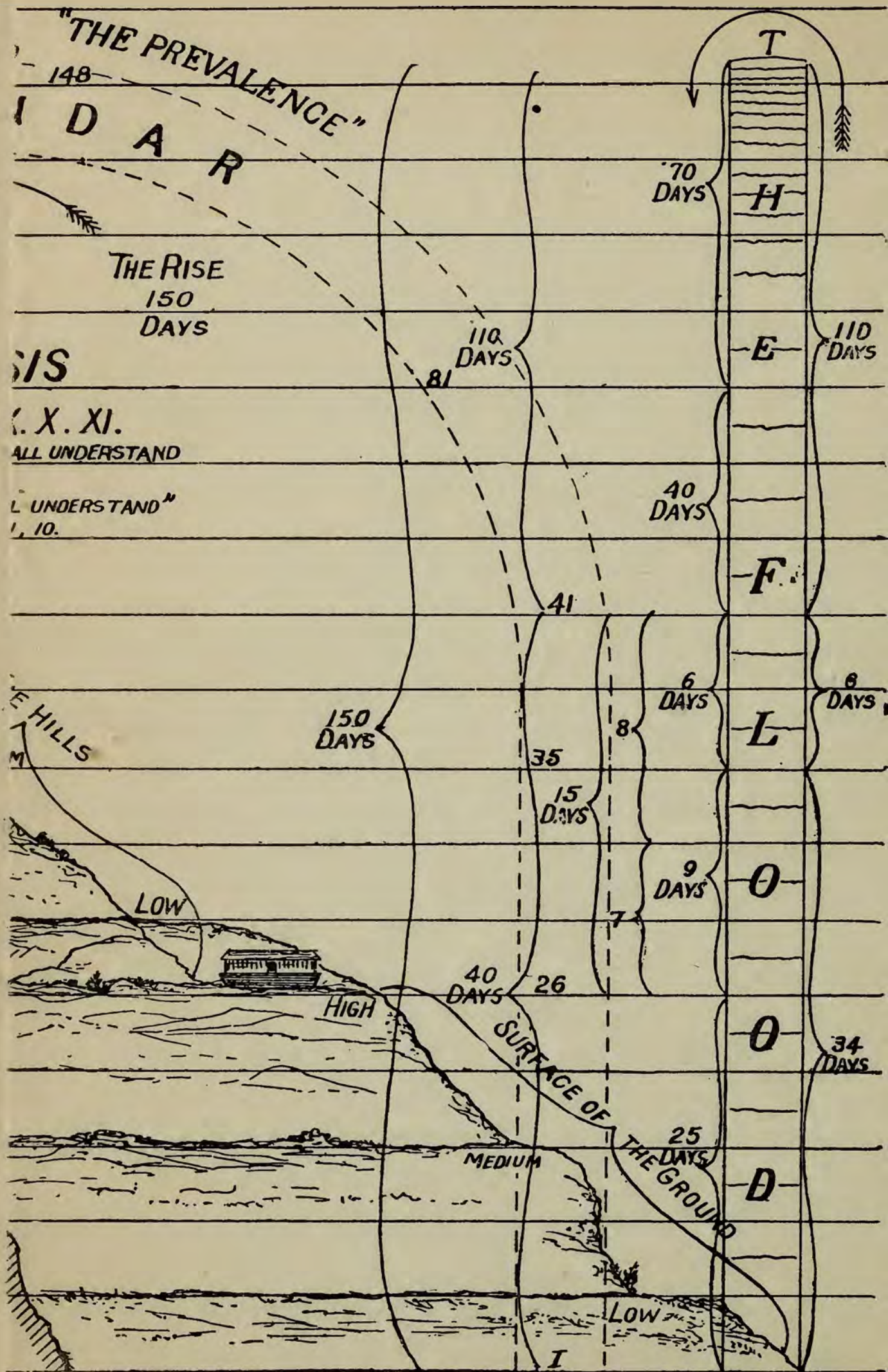
THE DELUGE.

Gauged against Asia and the Globe.
And no Cult found in Moses!
(Luke xx:11, 4.)

REFERENCES

To Historic Data on Right of Scheme
THE WORD OF GOD,
The Oldest and Best Epitome of
Human History and Truth.

PLATE I.



LUGE.

ia and the Globe.
and in Moses!
(iii. 4.)

REFERENCES

To Historic Data on Right of Scheme.
THE WORD OF GOD,
The Oldest and Best Epitome of
Human History and Truth.

THE FACT OF HISTORY:

—

THE GELUCK CRITICALLY EXAMINED.

THE
PART IV

NOAH'S ATTEMPT.

“ By FAITH Noah, being warned of God of things not seen as yet, moved with fear, prepared an ark to the saving of his house; by the which he condemned the world, and became heir of the righteousness which is by faith.”

Heb. xi. 7.

THE DELUGE CRITICALLY EXAMINED.

NOAH'S ALMANAC.

In the following Calendar we present our readers with a Log-book of the Deluge based upon the foregoing discussion, and upon the Record as it stands in Genesis. It is to be read and understood exactly as one would in consulting an Almanac of 1891, A. D., or for that matter of any past year. The Tables cover the fifteen months included in the Mosaic account.

Upon the left hand pages will be found the several events of the Flood Period opposite their proper dates; the subordinate periods in serial order; and the sequence of the Week days.

Upon the right hand pages are collected the serial days of each Calendric month; the Serial days of the Calendric Lunar year; those of the Absolute Lunar year; those of the Solar year; the serial order of the weeks, and of the days, dating from Creation; and finally a list of some few astronomical data.

The inner columns on each page, are introduced to assist the reader in passing across from page to page, and also to enable him to connect the Notes, Explanations, and General Remarks, with the particular days under consideration.

In formulating these notes, which come between the several sets of tables we have studied brevity so much as possible, but where more copious discussions have been deemed advisable, they will be found referred to as Appendices in a column upon the right hand pages, where also special Biblical references are collected.

In my own MS. calculation the Notes upon each month face the Tables or Monthly Calendars. This is impracticable in the printed Studies; but it is believed that the student will experience no inconvenience in the premises.

The same general system is followed throughout, as to the intermediate notes and pages. They refer generally to Sacred, Secular, and Scientific facts bearing upon the month in question, and are classified severally so as to give prominence: 1° to the Mosaic account, with a running commentary there on; 2° to Incidental Explanations; 3° to General Remarks.

N. B.—The notes, explanations and General Remarks pertaining to each month follow severally after the particular month under consideration.

THE CALENDAR.

1656-7 A. M.

I MONTH. (LUNAR) 1656 A. M. i. e. " OF THE

Biblical References, &c.	Events of the Flood Period opposite their proper dates.	Subord- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. →
Gen. viii. 6.	"New Year's Day" [Ord. Lunar Calen'r]	1	3	a
		2	4	b
		3	5	c
		4	6	d
		5	Sat.	e
	[Noah's Birth Day [Lunar Calendar.]	6	1	f
	[600 Calendric "years" old. Chronology	7	2	g
	is the <i>science of recording</i> PAST time!	8	3	h
	nor can any historical event be properly	9	4	i
	<i>recorded</i> until it is <i>past</i> . The failure to	10	5	j
	apply this principle rigidly, and by <i>rever-</i>	11	6	k
	<i>sal</i> , has involved us in our present chaos	12	Sat.	l
	and confusion as to the exact import of	13	1	m
	Biblical Chronological sequence.	14	2	n
	Individually, we, the sons of Noah,	15	3	o
	have never lost the secret, nor have we	16	4	p
	lost the sequence of Sabbaths as a race,	17	5	q
	but we are all at sea when we come to	18	6	r
	apply it to history as a record of events.	19	Sat.	s
	Now we call this century the XIX be-	20	1	t
	cause we are <i>in</i> , that particular cycle, not	21	2	u
	yet run out, and we are right; nor do we	22	3	v
	confuse matters when we note the years,	23	4	w
	as for instance 1892. Why therefore need	24	5	x
	we misunderstand the plain meaning of this	25	6	y
	record as to "Noah's 600th year," Noah	26	Sat.	z
	"600 years old," and "Noah in his 600th	27	1	a
	year"']	28	2	β
		29	3	γ
		30	4	δ

GENEALOGIES." NOAH "600 YEARS OLD."

Cross- Refer- ences. ←	Serial Days of the Calendric Month, Lunar.	Normal or Calendric Lunar Year. "The Alma- nack," i. e. Days of 1656, A. M.	Absolute Lunar Year i. e. No Intercala- tions 1707.	Flood. Days, i. e. True Solar Year, 1655 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
			ix Moon.				
a	1	1	10	320	86400	604796	
b	2	2	11	321	"	7	
c	3	3	12	322	"	8	
d	4	4	13	323	"	9	
e	5	5	14	324	Ends.	604800	
f	6	6	15	325	86401	1	
g	7	7	16 ☾	326	"	2	Full Moon.
h	8	8	17	327	"	3	
i	9	9	18	328	"	4	
j	10	10	19	329	"	5	
k	11	1	20	330	"	6	
l	12	2	21	331	Ends.	7	
m	13	3	22	332	86402	8	
n	14	4	23 ☾	333	"	9	Last Quarter.
o	15	5	24	334	"	604810	
p	16	6	25	335	"	1	
q	17	7	26	336	"	2	
r	18	8	27	337	"	3	
s	19	9	28	338	Ends.	4	
t	20	20	29	339	86403	5	
u	21	1	x ☾	340	"	6	New Moon.
v	22	2	1	341	"	7	
w	23	3	2	342	"	8	
x	24	4	3	343	"	9	
y	25	5	4	344	"	604820	
z	26	6	5	345	Ends.	1	
a	27	7	6	346	86404	2	
β	28	8	7	347	"	3	
γ	29	9	8 ☾	348	"	4	First Quarter.
δ	30	30	9	349	86404	604825	

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

GENESIS, CHAPTER V.

THIS *is* the book of the generations of Adam. In the day that God created man, in the likeness of God made he him ;

2 Male and female created he them ; and blessed them, and called their name Adam, in the day when they were created.

3 And Adam lived an hundred and thirty years, and begat *a son* in his own likeness, after his image ; and called his name Seth :

4 And the days of Adam after he had begotten Seth were eight hundred years : and he begat sons and daughters :

5 And all the days that Adam lived were nine hundred and thirty years : and he died.

6 And Seth lived an hundred and five years, and begat Enos :

7 And Seth lived after he begat Enos eight hundred and seven years, and begat sons and daughters :

8 And all the days of Seth were nine hundred and twelve years : and he died.

9 And Enos lived ninety years, and begat Cainan :

10 And Enos lived after he begat Cainan eight hundred and fifteen years, and begat sons and daughters :

11 And all the days of Enos were nine hundred and five years : and he died.

12 And Cainan lived seventy years, and begat Mahalaleel :

13 And Cainan lived after he begat Mahalaleel eight hundred and forty years, and begat sons and daughters :

14 And all the days of Cainan were nine hundred and ten years : and he died.

15 And Mahalaleel lived sixty and five years, and begat Jared :

16 And Mahalaleel lived after he begat Jared eight hundred and thirty years, and begat sons and daughters :

17 And all the days of Mahalaleel were eight hundred ninety and five years : and he died.

18 And Jared lived an hundred sixty and two years, and he begat Enoch :

19 And Jared lived after he begat Enoch eight hundred years, and begat sons and daughters :

20 And all the days of Jared were nine hundred sixty and two years : and he died.

21 And Enoch lived sixty and five years, and begat Methuselah :

22 And Enoch walked with God after he begat Methuselah three hundred years, and begat sons and daughters :

23 And all the days of Enoch were three hundred sixty and five years :

24 And Enoch walked with God : and he *was* not ; for God took him.

25 And Methuselah lived an hundred eighty and seven years, and begat Lamech :

26 And Methuselah lived after he begat Lamech seven hundred eighty and two years, and begat sons and daughters :

27 And all the days of Methuselah were nine hundred sixty and nine years : and he died.

28 And Lamech lived an hundred eighty and two years, and begat a son :

29 And he called his name Noah, saying, This *same* shall comfort us concerning our work and toil of our hands, because of the ground which the LORD hath cursed.

30 And Lamech lived after he begat Noah five hundred ninety and five years, and begat sons and daughters :

31 And all the days of Lamech were seven hundred seventy and seven years : and he died.

32 And Noah was five hundred years old : and Noah begat Shem, Ham, and Japheth.

CHAPTER VI.

AND it came to pass, when men began to multiply on the face of the earth, and daughters were born unto them,

2 That the sons of God saw the daughters of men that they *were* fair; and they took of them wives of all which they chose.

3 And the LORD said, My spirit shall not always strive with man, for that he also *is* flesh: yet his days shall be an hundred and twenty years.

4 There were giants in the earth in those days; and also after that, when the sons of God came in unto the daughters of men, and they bare *children* to them, the same *became* mighty men which *were* of old, men of renown.

5 And God saw that the wickedness of man *was* great in the earth, and *that* every imagination of the thoughts of his heart *was* only evil continually.

6 And it repented the Lord that he had made man on the earth, and it grieved him at his heart.

7 And the Lord said, I will destroy man whom I have created from the face of the earth; both man, and beast, and the creeping thing, and the fowls of the air; for it repenteth me that I have made them.

8 But Noah found grace in the eyes of the Lord.

9 These *are* the generations of Noah: Noah was a just man *and* perfect in his generations, *and* Noah walked with God.

10 And Noah begat three sons, Shem, Ham, and Japheth.

11 The earth also was corrupt before God, and the earth was filled with violence.

12 And God looked upon the earth, and, behold, it was corrupt; for all flesh had corrupted his way upon the earth.

13 And God said unto Noah, The end of all flesh is come before me; for the earth is filled with violence through them; and, behold, I will destroy them with the earth.

14 Make thee an ark of gopher wood; rooms shalt thou make in the ark, and shalt pitch it within and without with pitch.

15 And this *is the fashion* which thou shalt make it *of*: The length of the ark *shall be* three hundred cubits, the breadth of it fifty cubits, and the height of it thirty cubits.

16 A window shalt thou make to the ark, and in a cubit shalt thou finish it above; and the door of the ark shalt thou set in the side thereof; *with* lower, second, and third *stories* shalt thou make it.

17 And, behold, I, even I, do bring a flood of waters upon the

earth, to destroy all flesh, wherein *is* the breath of life, from under heaven; *and* everything that *is* in the earth shall die.

18 But with thee will I establish my covenant; and thou shalt come into the ark, thou, and thy sons, and thy wife, and thy sons' wives with thee.

19 And of every living thing of all flesh, two of every *sort* shalt thou bring into the ark, to keep *them* alive with thee; they shall be male and female.

20 Of fowls after their kind, and of cattle after their kind, of every creeping thing of the earth after his kind, two of every *sort* shall come unto thee, to keep *them* alive.

21 And take thou unto thee of all food that is eaten, and thou shalt gather *it* to thee; and it shall be for food for thee, and for them.

22 Thus did Noah: according to all that God commanded him, so did he.

The events recorded in Genesis, chapter v., briefly cover that portion of "all Past Time," which is included between the Creation of Eve and the death of Methuselah, to wit; 1656 Astronomic years nearly completed.

In chapter vi. the account reverts to a point of view 120 years, *to a day*, antecedent to the actual fall of the waters.

Moses, in the Spirit of inspiration writes from this standpoint recording the wretchedness of man up to it, the decision of the Almighty and his instructions to Noah. He also gives the general specifications of the Ark and closes with the remark—"Thus did Noah; according to all that God commanded him, so did he."

The labor of constructing the Ark and storing it with all things needful for a long voyage, and to

withstand a dreadful catastrophe occupied the whole of this vast period of time.

It stands, perhaps, as the most unique and remarkable exercise of human faith on record. It is an error to suppose that the Ante-diluvian civilization was barbarous. There is probably nothing new in Science, Art and Social Culture in "the earth that now is," which had not its perfected ancestor in "the world that then was." If the end of *this* "world" is now nigh at hand, then all that we see about us are but counterparts of what obtained then—in all respects our age is "as in the days of Noah."

EXPLANATIONS.

(a.) The Calendric, Lunar, or ordinary "Almanac" year commences with this date. *i. e.* 3d day of 86,400th week from Creation, or 604,796th day. It is the 1st day of the 1st month of 1656 A. M. on the Biblical Chronological scheme, whose opening year counts as 0 *i. e.* it is Astronomically the 1657th Almanac year. It was the 320th day of the *true* Solar year (1655 A. M. or 1656 Ast.). This latter year is the last one, of the "120 years of Grace," (Gen. vi. 3), it having 46 days to run, at the beginning of this "Almanac" year, ere the doom pronounced in 1536 A. M., *i. e.* the rupture of the Glacial Ring of Water, with which this earth was then surrounded (Gen. i. 6-8). "The Lake of Waters," came to past. In the mean time with the first day of this particular "Almanac year" com-

mences a special "period of grace" *i. e.* 40 days, to the day on which Noah is "Summoned" into the Ark, or only 39 (3×13) if the day of Summons be *not* included. But a part of this latter day was in a day of grace and up to the time of the Summons must be included in the 40. A careful logical distinction must be preserved between *duration* and *beginning*, all through this record, and we must remember that the Chronological "day" always begins at Sunset and *lasts* until the next sunset. Thus an event of duration, which begins on one day, of given date, has not *lasted* one day until the next date, at the same hour. From opening sunset to closing sunset of Sab. 10th of next month, is however only 39 days! (3×13 !) While counting from the opening Sunset of the year this closing Sabbath Sunset scored off exactly 40 days or a period of rest—"grace" such is the long suffering kindness of the Almighty.

GENERAL REMARKS.

(a). In the Lunar, "almanac year," now beginning, Noah becomes "600 years old." In common parlance, and in exactly the same sense as a similar remark is made in our day, he could say ever afterwards "I was 600 year old in 1656 A. M." For instance, the author of this present treatise was born Feb. 3d, 1851. Therefore he was "37 years old" in 1888: 1888 was his 37th year, and yet he was *in* his 38th year after Feb. 3d of that year.

II MONTH. 1656 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. —>
2 Pet. ii. 5.	[Noah, a “preacher of righteousness” ex- horts the world in vain, and the day of doom draws near.]	31 32 33 34 35 36 37 38 39	• 5 6 Sat. I 2 3 4 5 6	a b c d e f g h i
Gen. vii. Gen. vii. 5. Plate I.	The Summons. “Come!” Embarkation begins.	40 1	Sat. I	j k
8.	And continues all this week	2	2	l
9.	6 working days.	3	3	m
14.	The living freight, animals, &c., requiring	4	4	n
15.	all of this time.	5	5	o
16.	After its <i>close</i> , with his family,	6	6	p
Gen. vii. 7, 11, 13, 16. “A.”	Noah enters. Door shut. Flood begins. [i. e., on <i>Solar</i> New Years day, in the middle of its festivities [Matt. xxiv. 38. Luke xvii. 26. 27.] while the inhabitants of the earth were desecrating the Sabbath.]	7 1 2 3 4	Sat. I 2 3 4	q r s t u
Gen. vi. 9.	Noah’s Absolute <i>Solar</i> Birthday. [i. e. “600 <i>Solar</i> years old on Thursday, or 5th day of week, the 22d day of the 2nd Lunar month of “the Almanack.” Thus, while “the flood was upon the earth,”	5 6 7 8	5 6 Sat. I	v w x y
Gen. vii. 6.	Noah was 600 years old, and in his 601 year actually, although as to common parlance he was also in his 600th year, 1656 A.M. Lunar, being thereby signified.]	9 10 11 12	2 3 4 5	z a β γ

"OF THE GENEALOGIES."

Cross Refer- ences. ←	Serial Days of Calendric Month, Lunar.	Normal or Calendric Lunar Year. "The Alma- nack," i. e. Days of 1656, A. M	Absolute Lunar Year i. e. No Intercala- tions 1707.	Flood. Days, i. e. True Solar Year, 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	31	10	350	86404	604826	
b	2	2	11	351	"	7	
c	3	3	12	352	Ends.	8	
d	4	4	13	353	86405	9	
e	5	5	14	354	"	604830	
f	6	6	15 ☾	355	"	1	Full Moon.
g	7	7	16	356	"	2	
h	8	8	17	357	"	3	
i	9	9	18	358	"	4	
j	10	40	19	359	Ends.	5	
k	11	1	20	360	86406	6	
l	12	2	21	361	"	7	
m	13	3	22	362	"	8	
n	14	4	23 ☾	363	"	9	Last Quarter.
o	15	5	24	364	"	604840	
p	16	6	25	365	"	1	
q	17	7	26	1	Ends.	2	Solar New Yr
r	18	8	27	2	86407	3	
s	19	9	28	3	"	4	
t	20	50	29	4	"	5	
u	21	1	xi ☾	5	"	6	New Moon.
v	22	2	1	6	"	7	
w	23	3	2	7	"	8	
x	24	4	3	8	Ends.	9	
y	25	5	4	9	86408	604850	
z	26	6	5	10	"	1	
a	27	7	6	11	"	2	
β	28	8	7 ☾	12	"	3	First Quarter.
γ	29	59	8	13	86408	604854	

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERTIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

(j) “And the Lord said unto Noah, come thou and all thy house into the ark. For thee have I seen righteous in this generation. Gen. vii. 1. Of every clean beast thou shall take to thee by sevens, the male and his female; and of beasts that are not clean, by two, the male and his female (2). Of fowls also of the air by sevens, the male and the female; to keep seed alive upon the face of all the earth (3). For yet seven days, and I will cause it to rain upon the earth forty days and forty nights; and every living substance that I have made will I destroy from off the face of earth (4).

(k) And Noah did according unto all the Lord commanded him (5).

(l) Of clean beasts, and of beasts that are not clean, and of fowls, and of everything that creepeth upon the earth (8).

(m) There went in two and two unto Noah, unto the Ark, the male and the female, as God commanded Noah (9).

(n) And every beast after his kind, and all the cattle after their kind, and every creeping thing that creepeth upon the earth after his kind, and every fowl after his kind, every bird of every wing (14).

(o) And they went in unto Noah into the ark, two and two of all flesh, wherein is the breath of life (15).

(p) And they that went in, went in male and female of all flesh as God had commanded him (16).

(q) (And), in the six hundredth year of Noah's life (*i. e.* by the Calendar) in the second month the seventeenth day of the month (11). In the self same day entered Noah, and Shem, and Ham, and Japheth, the Sons of Noah, and Noah's wife, and the three wives of his sons with them, into the ark (13) (*i. e.* after sunset the hour at which Sabbath commenced). They (14) and Noah went in, and his sons, and his wife, and his sons' wives, with him, into the ark, because of (belief in the predictions Gen. vi. 3. vii. 4. of) the waters of the Flood (7). The same day (at about 10 o'clock P. M. *i. e.* 4 hours after sunset, and while all the rest of the earth were feasting. Matt. xxv. 36, Luke xvii. 26, 27,) were the fountains of the great deep (the Ring of waters?) broken up, and the flood-gates of heaven were opened (11). (This was probably in the sight of Noah, standing in the door of the ark, and in the sight of the feasters desecrating that Sabbath new year's eve.) And the Lord shut him in (16); (note

here the fact that the *door* was beyond the control of Noah; and secured against all violation by the Lord himself; and who alone therefore could open it!) (It now probably took the advance section of the waters above the firmament the remaining 12 minutes and 25.08 + seconds to fall, or reach "the earth," and this in the full sight of the inhabitants of a hopelessly doomed world. Some of whom in this brief and dreadful eternity may have truly repented. (1 Pet. iii. 20.) And (so) it came to pass, the seventh day [Gen. vii. 4], that the waters of the Flood were upon the Earth. (10) (and at that instant, also, ended the one hundred and twenty years of grace [Gen. vi. 3]. And the rain was upon the earth forty days and forty nights (12 and 4) *i. e.* during all this time the Firmamental waters were falling through the atmosphere, they being under the influence of two forces, gravity and rotation, and both, on reaching the atmosphere, under its resistance: The first ring probably broke and fell direct, the others oscillated, wavered, and followed, and so on, to the remotest edges of the more rarefied vaporous elements of the system).

(v.) And Noah was six hundred years old when the flood of waters was upon the earth (vii. 6), and the waters prevailed upon the earth an hundred and fifty days (vii. 24).

We have "Birthdays" upon numerous cycles. We all have a Lunar birthday as well as a Solar one. We Moderns, who only keep Solar time,

ignore all other Calendars. Noah however kept both. For his Lunar Almanac year is constantly intercalated to keep apace with true Solar time. Now the 6th day of the year (Lunar) is the anniversary of all the Patriarchal births from Adam to Noah, all being "perfect in their generations." Hence the 6th day of the 1st month of this year, 1656 A. M., on the 1st day of the 86401st week, (our Sunday) is the "Calendric" *Lunar* anniversary of his birth. We shall come to his absolute *Solar* Birthday all in due time. We shall refer to Noah's calendar years frequently as the *years of the genealogies*, or generations, and in a note will explain its full significance.

EXPLANATIONS.

We are dealing with Noah's record in this treatise, on the basis that it is *absolutely* correct. We must therefore keep in mind the fact that, though the chronological day nominally ends, and the new one begins at Sunset, still, owing to the persistent "excess," in true Solar time, the *absolute* astronomical instant of termination is always later, and to be found somewhere *after* Sunset. On this basis (j) "the Summons" being given about Sunset, *i. e.*, in "the evening" of Sabbath the 10th of this month, the 39 days end when the absolute Solar day expires, and at this moment, and not an instant before, would any part of the next week of work, embarkation, etc., be in prospective operation. Thus, as to Chro-

nology, the 1st day of the new week (our Sunday), *i. e.*, the 11th day of the month becomes the appropriate date for such an undertaking, not forgetting that the Hebrew system derived from this Antediluvian one, runs our Sunday 'back from its midnight' 6 hours to the previous sunset! Hence this Sabbath added to the 39 becomes a day of grace and so there were 40 in all.

The reiteration in Noah's account is noticeable, and intensifies the intent of Moses to enforce its absolute truth (Gen. xli. 32!). The self-styled Biblical believer, therefore, who, in view of all this explicit reiteration, presumes to reject this matter as not a fact in all of its details, is *not* a believer. He arrogates to himself a right to reject, which, if granted, need not terminate until he has rejected the decalogue also, all of "Moses and the prophets," aye, and Christ himself who rests upon them. There can be no apologies made with infidels on this subject, save such as are equally fatal to a logical faith and a consistent hope of Salvation.

GENERAL REMARKS.

It is fitting here to quote (as shedding light both upon the events under consideration, the present lack of faith on Flood and future, and the predicted parallel state of man at the final *Dies Irae* yet to come) the Saviour's own words, to wit:—"But of that day knoweth no *man*, no, not the angels of heaven, but My Father ONLY. But as the days

of Noe were, so shall the coming of the Son of Man be. For as in the days that were before the Flood they were eating and drinking, marrying and giving in marriage, until the day that Noe entered into the Ark and knew not until the flood came and took them all away ; so shall also the coming of the Son of Man be. Then shall two be in the field ; the one shall be taken and the other left ; two women shall be grinding at the mill ; the one shall be taken and the other left. WATCH therefore ; for ye know not what hour your Lord doth come." (Matt. xxv. 13.) (See also Luke xvii. 20, 37.)

Again, as to the final repentance of some after the Ark was shut (Gen. vii. 16) and while the Antediluvian "Rainbow" (the Ring of Water above the Firmament) was falling, and thereafter, while the Flood arose until all were drowned, we have St. Peter's testimony that Our Saviour "went and preached unto the Spirits in prison, which were sometimes disobedient, when the long suffering of God waited in the days of Noah, while the ark was preparing, wherein few, that is, eight souls, were saved by water." (1 Peter iii. 20.) It is, however, a question whether this preaching was to the souls of dead men (?) or to the spirits, properly so called, *i. e.* "to the disobedient angels."

III MONTH. 1656 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account i. e. Du- ration.	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. →
Gen. vii. 12.	“ And the Rain was upon the Earth	13 14 15 16 17 18 19 20 21 22 23 24	6 Sat. ³ 1 2 3 4 5 6 Sat. ⁴ 1 2 3	a b c d e f g h i j k l
[Gen. vii. 17.] “B.” Plate I.	[The Ark “borne up” and “lifted” from the high ground.] Forty Days, and [The Olive Slopes Submerged.] Forty [The Ark “goes” on the waters.] Nights.”	1 26 2 27 3 28 4 29 5 30 6 31 7 32 8 33 9 34 1 35 2 36 3 37 4 38 5 39 6 40 7 41 8 42	4 5 6 Sat. ⁵ 1 2 3 4 5 6 Sat. ⁶ 1 2 3 4 5 6 Sat. ⁷	m n o p q r s t u v w x y z a β γ δ
[Gen. vii. 18.] “B.” Plate I.	Genesis vii. 12.			
Gen. vii. 4. 17, “A. B. C.” Plate I.	Last Day and Night of “Rain.”			
[Gen. vii. 19.] Gen. vii. 4. 17.	[The high hills completely covered.” The fall of “the deep” is over. But the waters continue to “prevail” or rise for 110 days.]			

“OF THE GENEALOGIES.”

Cross Refer- ences. ←	Serial Days of Calendric Month, Lunar.	Normal or Calendric Lunar Year. “The Alma- nack,” i. e. Days of 1656, A. M	Absolute Lunar Year i. e. No Intercala- tions 1707.	Flood. Days, i. e. True Solar Year, 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	60	9	14	86408	604855	
b	2	1	10	15	Ends.	6	
c	3	2	11	16	86409	7	
d	4	3	12	17	“	8	
e	5	4	13	18	“	9	
f	6	5	14	19	“	604860	
g	7	6	15 ☾	20	“	1	Full Moon.
h	8	7	16	21	“	2	
i	9	8	17	22	Ends.	3	
j	10	9	18	23	86410	4	
k	11	70	19	24	“	5	
l	12	1	20	25	“	6	
m	13	2	21	26	“	7	
n	14	3	22 ☾	27	“	8	Last Quarter.
o	15	4	23	28	“	9	
p	16	5	24	29	Ends.	604870	
q	17	6	25	30	86411	1	
r	18	7	26	31	“	2	
s	19	8	27	32	“	3	
t	20	9	28	33	“	4	
u	21	80	29	34	“	5	
v	22	1	xii ☾	35	“	6	New Moon.
w	23	2	1	36	Ends.	7	
x	24	3	2	37	86412	8	
y	25	4	3	38	“	9	
z	26	5	4	39	“	604880	
a	27	6	5	40	“	1	
β	28	7	6	41	“	2	
γ	29	8	7 ☾	42	“	3	First Quarter.
δ	30	89	8	43	Ends.	604884	

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

(a-a) "And the FLOOD was forty days upon the earth:" (*i. e.*, during all this period the superincumbent waters above "the Firmament," were raging their "*vortical*" way down through the "*vacuous*" ether above the atmosphere, on to it, and into it).

It was during these 40 days and *thereafter* for 110 that the Mosaic account continues as follows:

(m) "And the waters increased and bare up the ark and it was lifted up *above the earth*." (Gen. vii. 17).

(v) "And the waters prevailed and were increased greatly upon the earth; and the ark went upon the face of the waters." (18.)

As we shall see later, the ark must have "drawn" at least one-half of its depth, or rested into the water some 15 cubits or a shade more. These were sacred cubits at 25" each; "cubits and a span long;" or, as known in later days, "cubits of the armpit," and "the sanctuary." How soon the ark floated we have no direct means of knowing. Prob-

ably very early in the 40 days. But we have an indirect way and have dated it accordingly.

(β) It is also to be noted that the waters continued to "prevail," *unabated*, for 150 days, counting from the *first* day of the flood. That is 110 days beyond the 40 which covered the extraordinary falling of "the terrestrial ring." Nature was all astray, and organizing herself under *new* conditions. Yet all of this was under the same ordinary "reign of law" which had been from eternity. But law now with new applications and conditions.

EXPLANATIONS.

The "Seas," which, in the former earth, were all gathered into "*one* place," (Gen. i. 9 and 10) do not seem to have played any important part in the Deluge. We take the waters to have come chiefly from the Ring alone, called "the great deep." This it was whose "fountains were broken up," and which poured down through the opened "floodgates of heaven." (Gen. vii. 11). Nor from Adam's day to Noah's 600th year had man ever seen one drop of "rain" (Gen. ii. 5. 6). Hence, too, it was that the threat of the Almighty (Gen. vi. 17 and particularly the explanatory verse vii. 4) to bring "*rain*" upon the earth, was direful in the extreme! And the utter disbelief of the mass of humanity, then existent, whose crops since creation, had only been watered by the dew, in the then and original

due order of nature, may well be imagined by us, who boast so about our own knowledge (*sic*!) of the permanence of natural law.

With the complete fall of the ring, *into* the atmosphere, the *new* "conditions" of the *Post* diluvian world began; the "rain" or Flood, as such ceased, at the end of the 40th day of its duration but then commenced the conditions which have *since* obtained. And all during the remaining "prevalence" of the waters, the "firmament" may have been depositing its over saturated moisture; *i. e. natural* local rains, over large areas; dense clouds, dead calm, black darkness. And on the ever rising waters on one sole object lost in gloom! the Ark of Noah.

GENERAL REMARKS.

The story of the Flood is compressed by Moses, (who undoubtedly had it from authentic records, duly handed down) into less than two brief chapters, not counting the preliminary one detailing the incidents of the preceding "120 years of grace," and also omitting that part of the record which deals with its immediate after events. But when we resolve the subject out into the astronomical breadth it furnishes such full data for developing, it becomes a recital not to be compressed into the very Bible itself, if every detail scientific and otherwise receives its proper consideration. The scope of the present treatise con-

densed as it is, is enough to convince any fair-minded man that short and pithy as the Mosaic recital is, there is yet, far too much in it, when in the least bit *comprehended*, to be dismissed with an idle word! And we submit, that, in view of what we here present, (the half of its grand headings being left untouched) the so-called "Christian" may no longer lend the example of his doubt, as to the absolute and literal event so tersely discussed in Holy writ. Either "inspiration" suffered Moses to relate a lie, and the very Saviour of men abetted it by quoting and referring to the Flood, or else as science shows it may be, it is *wholly true*! There is but one motto for the faithful, be they of "Israel" or "Judah." *Nulla Vestigia retrorsum*! And the position from which we are not to recede is that of the Inspiration of the Bible.

IV MONTH. 1656 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account i. e. Du- ration.	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. —→
<div>“B.”</div> <div>“D.”</div> <div>“E.”</div> <div>“F.”</div> <div>Plate I.</div>	[The Period of “Prevalence.” The Earth covered with rising water, and darkness brooding over the face of the Deep—as at the first. [Gen. i. 1.] The waters were now climbing the mountain sides. This was due to their precipitation from the sur-charged atmosphere. To obtain a correct idea of the phenomenon we must remember that the Ring broke and fell from <i>above</i> the Firmament, onto it; then <i>through</i> it; spreading everywhere <i>about</i> the globe. With it came Drift, Hail, Glacial concomitants, etc. It took fully 110 days for this vortical Cyclo- ne to come to rest before “abating.” Then only could gravity come in and draw the sheet of water into its present equatorial ring, 13 miles in excess. During the month at present under consideration the Storm was at its height. Add to all this the supplementary influence of the waters from below the earth, i. e. from <i>under</i> it—the which continued to flood forth during the entire period of “the Prevalence”—and some idea may be formed of this astounding phenomenon. The Biblical account of the deluge is Astronomically, Chronologically, Geolog-ically, Geographically, and Physically correct, and it is Mathematically harmo-nized beyond human powers of disturb-ance.]	9 43	1	a
	10 44	2	b	
	11 45	3	c	
	12 46	4	d	
	13 47	5	e	
	14 48	6	f	
	15 49	Sat. ⁸	g	
	16 50	1	h	
	17 51	2	i	
	18 52	3	j	
	19 53	4	k	
	20 54	5	l	
	21 55	6	m	
	22 56	Sat. ⁹	n	
	23 57	1	o	
	24 58	2	p	
	25 59	3	q	
	26 60	4	r	
	27 61	5	s	
	28 62	6	t	
	29 63	Sat. ¹⁰	u	
	30 64	1	v	
	31 65	2	w	
	32 66	3	x	
	33 67	4	y	
	34 68	5	z	
	35 69	6	a	
	36 70	Sat. ¹¹	β	
	37 71	1	γ	

“OF THE GENEALOGIES.”

Cross Refer- ences. ←	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. “The Alma- nack,” i. e. Days of 1656, A. M.	Absolute Lunar Year i. e. No Intercala- tions 1707, 1708.	Flood. Days, i. e. True Solar Year. 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	90	9	44	86413	604885	
b	2	1	10	45	“	6	
c	3	2	11	46	“	7	
d	4	3	12	47	“	8	
e	5	4	13	48	“	9	
f	6	5	14 ☾	49	“	604890	Full Moon.
g	7	6	15	50	Ends.	1	
h	8	7	16	51	86414	2	
i	9	8	17	52	“	3	
j	10	9	18	53	“	4	
k	11	100	19	54	“	5	
l	12	1	20	55	“	6	
m	13	2	21	56	“	7	
n	14	3	22 ☾	57	Ends.	8	Last Quarter
o	15	4	23	58	86415	9	
p	16	5	24	59	“	604900	
q	17	6	25	60	“	1	
r	18	7	26	61	“	2	
s	19	8	27	62	“	3	
t	20	9	28	63	“	4	
u	21	110	i 1708 ☾	64	Ends.	5	New Moon.
v	22	1	1	65	86416	6	N. L. Year. Absolute.
w	23	2	2	66	“	7	
x	24	3	3	67	“	8	
y	25	4	4	68	“	9	
z	26	5	5	69	“	604910	
a	27	6	6	70	“	1	
β	28	7	7 ☾	71	Ends.	2	First Quarter.
γ	29	118	8	72	86417	604913	

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

“And the waters prevailed exceedingly upon the earth :

And *all* the high hills that were under the WHOLE heaven were covered.” (Gen. vii. 19.) (There can be no doubt as to what Moses here *records*, and it is wholly true or utterly false, and if the latter, what have we to do with “Moses and the Prophets?” Luke xvi. 31) but the account continues—

“Fifteen cubits upward.” (*i.e.* at 25" each = $31\frac{1}{4}$ feet) “did the waters *prevail* :

“And the MOUNTAINS were *covered* !” (Gen. vii. 20).

We can know but little of the character of “the former” earth, save as detailed in Gen. i. and ii. but of two of its mountains, the which are included later on in this Mosaic recital, we can be sure, and that is of “the mountains of Ararat” which are respectively 13,085 and 17,112 feet, (See Black’s Atlas) above the level of the present *abated* sea. So here again we fully agree with the *infidel*,

that these lofty peaks themselves, whether they were then the highest upon earth or no, must have been overtopped by at least $31\frac{1}{4}$ feet above their dizziest crag; but we *disagree* with him in that, *therefore* he persists in rejecting the account, since we accept it as a scientific fact, and capable of demonstration to the point of reasonable possibility. Beyond that point, once reached, we are satisfied and *believe!*

EXPLANATIONS.

The Mosaic account divides the rising of the waters into at least six distinct, subordinate periods:

1st. From the beginning of the flood until the ark was "lifted," which would necessitate a rise of at least 15 cubits above the general level *whereon* the ark was built (25 days.)

2d. From the mere flotation of the ark, to the period when it "went" fully upon "the surface of the waters," then, as per implication, covering the average or medium "Hills" (9 days).

3d. From the termination of the previous period, until all the "*high* hills under the whole heaven were covered" (6 days).

4th. From the covering of "all the high hills under heavens," unto the time when the summits of the mountains began to be submerged. (*i. e.* at least those of Little Ararat's elevation) (40 days).

5th. From the day when the lesser mountains

were submerged, to the one when the water reached its final limit, which was 15 cubits over and above the summits at least of Upper Ararat (67 days).

6th. From the covering of the summits as above and at which time the ark grounded and "rested," until the Flood "turned" (3 days, *i. e.* bringing us to the end of 150 days of 24 hours each, reckoning from 10 o'clock P. M. 12 mins. and 25.98 + sec. on Sab. 17th of 2d month).

In a similar manner the decadence of the waters is arranged in natural periods, as we shall see later on. Now each of these several subordinate divisions is capable of an honest approximation, as to *time* and *depth*, and *volume* and the dates thereof.

GENERAL REMARKS.

And when such calculation shall have been laboriously and impartially completed, from accurate and reliable data, which we doubt not exist, we are confident that it will but add new weight to the credibility of Moses, and be as accurate to the last decimal, as we opine this treatise demonstrates his Noahic Calendar to have been.

Now it is unfair to the merits of any line of discussion to disturb its sequence by a flood of irrelevant "quizzes," and perpetually to divert an *argumentum ad hominem* by foolish questions. The present treatise does not pretend to *settle* anything but the Chronological status of the Mosaic Flood. And this it claims to have done, to a

degree of accuracy, which cannot but silence such as are *wise* and *honest* in their scientific doubts. In other lines it leaves the subject to be better treated by specialists who may be concerned to follow up the topic. We write to earnest seekers after truth, to those whose faith needs strengthening, and finally to such as deny the truth: For truth is mighty and inevitably *prevails*!

We have no doubt but that the devout Geologist may write volumes in defense of the Deluge; and find, in a strict admission of the Mosaic record, data equal to the solution of many questions which now disturb the text books; In fact the *true* Scientist, no matter what his branch of investigation, will find new light upon his topic so soon as he realizes that it passed through the Flood; while, unless it is baptized by a faith in THE FACT OF HISTORY, no matter what he writes, no matter what he accomplishes it will be ephemeral, and will wither in the sunlight of the Coming Age. From the mere literary standpoint, of those who write for posterity, it were better to write one line for the Millennium—which is the Hope of History,—than to load a library in defense of present error.

V MONTH. 1656 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. →
[Gen. vii. 20.] "B." Plate I. "D." "E." "F." "I."	[The Earth still trembling from the Shock of]	38 72	2	a
		39 73	3	b
	Central Dates of the Period of Prevalence.	40 74	4	c
	[Satellites: The waters unabated; gloom at its height.]	41 75	5	d
		42 76	6	e
		43 77	Sat. ¹²	f
		44 78	1	g
		45 79	2	h
	[And the Mountain Tops began to be covered.]	46 80	3	i
		1 81	4	j
	[The last <i>sub</i> -period of "Prevalence" lifts the surface of the waters to 15 cubits above "the tops of the mountains." It is a long period, 70 days, owing to the vast volume of water involved! And is the counterpart of the 70 days of assuaging from this final stage <i>back</i> to the emergence of these summits as notice further on. Both of Ararat's cones seem to be subtly involved in this verse. Their difference in height is 4027', to which add 31¼', making 4058¼ feet for the total rise, all of which must have occurred during the first 67 days of this Period, as the ark rests 3 days before it ends, i. e. grounds on the summit of Upper Ararat.]	2 82	5	k
		3 83	6	l
		4 84	Sat. ¹³	m
		5 85	1	n
		6 86	2	o
		7 87	3	p
		8 88	4	q
		9 89	5	r
		10 90	6	s
		11 91	Sat. ¹⁴	t
		12 92	1	u
		13 93	2	v
		14 94	3	w
		15 95	4	x
		16 96	5	y
		17 97	6	z
		18 98	Sat. ¹⁵	a
		19 99	1	β
		20 100	2	γ
		21 101	3	δ

"OF THE GENEALOGIES."

Cross Refer- ences. ←	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. "The Alma- nack," i. e. Days of 1656, A. M.	Absolute Lunar Year i. e. No Intercala- tions 1708.	Flood. Days, i. e. True Solar Year, 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	119	9	73	86417	604914	
b	2	120	10	74	"	5	
c	3	1	11	75	"	6	
d	4	2	12	76	"	7	
e	5	3	13	77	"	8	
f	6	4	14	78	Ends.	9	
g	7	5	15 ☾	79	86418	604920	Full Moon.
h	8	6	16	80	"	1	
i	9	7	17	81	"	2	
j	10	8	18	82	"	3	
k	11	9	19	83	"	4	
l	12	130	20	84	"	5	
m	13	1	21	85	Ends.	6	
n	14	2	22 ☾	86	86419	7	Last Quarter.
o	15	3	23	87	"	8	
p	16	4	24	88	"	9	
q	17	5	25	89	"	604930	
r	18	6	26	90	"	1	
s	19	7	27	91	"	2	
t	20	8	28	92	Ends.	3	
u	21	9	29	93	86420	4	
v	22	140	ii ☾	94	"	5	New Moon.
w	23	1	1	95	"	6	
x	24	2	2	96	"	7	
y	25	3	3	97	"	8	
z	26	4	4	98	"	9	
a	27	5	5	99	Ends.	604940	
β	28	6	6	100	86421	1	
γ	29	7	7 ☾	101	"	2	First Quarter.
δ	30	148	8	102	86421	604943	

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

“ 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.*” (Gen. vii. 21.) (No room left here for one or several “local” floods and several groups of survivors as some persist in asserting. Moses refers to one “universal Deluge,” one sole Ark, and one sole Noah !)

“ *All* in whose nostrils was the breath of the spirit of life, of *all* that was in the dry land *died.*” (Gen. vii. 23.)

In other words, the cataclysm swept away the entire animal kingdom, as such, and every living “substance” (vii. 4), and every living “thing” (vi. 17) save such as were “elected” in the ark:—all that maintained itself by air, and had the breath of life, even all flesh (vi. 13), nor is there any escape from this conclusion, testified to as it is by the universal history of every race alive, unless we discard the whole story, and with it, Sinai, Tab-

ernacle, Temple and the Church, and reduce, at once, the Bible to the same standard of "authority" which we accord to the Koran, Zend Avesta, the works of Confucius, or of John Smith. In that case there is no "law" except human law the fear of which can exercise no "*moral*" force!

EXPLANATIONS.

If the author of this treatise were arguing upon the opposite side of the question, and succeeded in demonstrating that the Flood was *not* "universal," but was a mere "local" affair, he would fairly consider his case to be made out; and that the credibility of Moses was fatally injured. There can be no compromise in the understanding of the plain intention of the Sacred Historian. He gives us "the truth, the whole truth, and nothing but the truth," or else, as his words imply "*universality*," he wilfully deceives us.

For those who base their hopes of a future life, and their faith in salvation upon the Bible, it is unreasonably *treasonable*, to admit the limitation of the flood to "the then known earth" and other similar apologies.

Moreover, the admission involves a *reducto ad absurdum*, and one equally as fatal to the verity and "common sense" of the Bible. To wit: If Noah's deluge was but "a local affair," confined within a certain "valley," or "area," no matter how large, short of terrestrial, then to waste 120 years build-

ing a huge boat, when a few years of journeying, even upon foot with his staff only, would have put Noah, beyond its influence, was *folly*. For instance, suppose that one single family of Tartars were *convinced* to-day, that by the end of a definite period of years, all the Northern quarters of the Globe were to be submerged: Suppose they could persuade no one else to this *belief*, would they not *migrate*? Would they not move south,—south—south, until they reached at the very southern limit of any land that yet remained?

Nor would they have aught else to do but to “get out of their own country” as Abraham did from Ur, or Lot from Sodom.

GENERAL REMARKS.

From a soldier's standpoint, all such “localization” of the Deluge, upon the part of Bible students and religious men, looks to the author like the reprehensible conduct of one in command of a fortification, who without defending his outworks to the last extremity, retreats at once to his interior and last line of hopeless defense. He leaves his “redoubts,” and “covered ways,” and all his “outworks” to the foe, who never fails to reduce a work so sacrificed.

If we would save the citadel we must make a vigorous sortie and retake the Ararat redoubt and

turn its scientific guns back upon the beseigers, and it is time for the attempt.

Who will follow?

While of course it is a matter of natural concern to one who perceives *the logical necessity of moving back, and at once*, to “the ancient landmarks,” nevertheless, we shall not glance backward in our own attempt.

“In such a cause one is a majority and enough, albeit it is sad to find that the very Church itself has long ago apparently given up the intention of defending the Mosaic account of the Flood to the extremity—!

From the very first the retreat has been a fatal error—for it was not only a needless and ridiculous concession to “Science falsely so-called,” and one yielded in the face of universal history, but it has brought in its train a multiplying horde of even deadlier concessions, until no longer looked upon as Inspired and TRUE, the Scriptures have been “made of none effect,” by “Higher Critics” of every degree and ilk—though they be pigmies all beside the giants whom they criticise! It is certainly time to call a “Halt!” and so soon as this is made it will be clear to all who obey the command, that the flood of faith must turn until the tops of the mountains are covered.

VI MONTH. 1656 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. →
Gen. vii. 20.	[The Waters Prevail unabated ; the Earth recovering slowly from its Siderial shock; darkness, dead calm, and silence enclose the ark. The <i>natural</i> rains continue unabated, and the rising waters, having left the top of Little Ararat long ago, are climbing to that of Upper Ararat and cover it, and continue to rise thereafter until at the end of "the Prevalence" they are 15 cubits upward.]	22 102	4	a
		23 103	5	b
		24 104	6	c
		25 105	Sat. 16	d
		26 106	1	e
		27 107	2	f
		28 108	3	g
		29 109	4	h
		30 110	5	i
		31 111	6	j
		32 112	Sat. 17	k
		33 113	1	l
		34 114	2	m
		35 115	3	n
		36 116	4	o
		37 117	5	p
		38 118	6	q
		39 119	Sat. 18	r
		40 120	1	s
		41 121	2	t
		42 122	3	u
		43 123	4	v
		44 124	5	w
		45 125	6	x
		46 126	Sat. 19	y
		47 127	1	z
		48 128	2	α
		49 129	3	β
		50 130	4	γ
	Central Dates of Lunar [Calendric] year 1656, A. M.			

“OF THE GENEALOGIES.”

Cross Refer- ences. ←	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. “The Alma- nack,” i. e. Days of 1656, A. M.	Absolute Lunar Year i. e. No. Intercala- tions 1708.	Flood. Days, i. e. True <i>Solar</i> Year, 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	149	9	103	86421	604944	
b	2	150	10	104	“	5	
c	3	1	11	105	“	6	
d	4	2	12	106	Ends.	7	
e	5	3	13	107	86422	8	
f	6	4	14 ☾	108	“	9	Full Moon.
g	7	5	15	109	“	604950	
h	8	6	16	110	“	1	
i	9	7	17	111	“	2	
j	10	8	18	112	“	3	
k	11	9	19	113	Ends.	4	
l	12	160	20	114	86423	5	
m	13	1	21	115	“	6	
n	14	2	22 ☾	116	“	7	Last Quarter.
o	15	3	23	117	“	8	
p	16	4	24	118	“	9	
q	17	5	25	119	“	604960	
r	18	6	26	120	Ends.	1	
s	19	7	27	121	86424	2	
t	20	8	28	122	“	3	
u	21	9	iii ☾	123	“	4	New Moon.
v	22	170	1	124	“	5	
w	23	1	2	125	“	6	
x	24	2	3	126	“	7	
y	25	3	4	127	Ends.	8	
z	26	4	5	128	86425	9	
ā	27	5	6	129	“	604970	
β	28	6	7	130	“	1	
γ	29	177	8 ☾	131	86425	604972	First Quarter.

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

“And every living substance was destroyed which was upon the face of the ground, both man and cattle and the creeping things ; and the fowl of the heaven ; and they were destroyed from the earth.” (Gen. vii. 23.)

The reiteration here has both the force of intensifying the statement, and likewise is the complement of the several “dooms” pronounced at distinct times respecting this flood. For instance, it is noted five times that this destruction was pronounced, to wit : Gen. vi. 3 ; 7 ; 13 ; 17 ; and vii. 4 : and so, as counterparts, as though to fulfil each several “sentence” of the Almighty, it is alluded to five several times as fulfilled, and accomplished, to wit ; Gen. vii, 21 ; 22 ; 23 ; 23 ; 23 :

No doubt, when men shall give themselves to study this record “between the lines,” in all the light of “mystic numbers,” phraseology and distinction, each of these several dooms and their fulfilments will gain new significance, and fall into

periods and orderly support and sequence, in a way not dreamed of now. But certain, too, it is, that, so long as the Bible is examined simply in the spirit of doubt and with a view to its discredit, rather than to seek its establishment, no light will flow upon such occult points.

EXPLANATIONS.

As to the duration of the Flood, (one full Solar year, at its absolute Astronomical value), and in view of what Scientifically may have produced it (the fall of a terrestrial ring, or System of rings), and with due regard to the Mosaic account, upon whose credibility we are arguing, it cannot be fairly urged that the time assigned is either too long or too short. In weighing evidence it is not enough to scale the *avoirdu pois* of each element of testimony separately, but it is absolutely necessary to modify them all by mutual comparison. For instance, each witness gives its evidence between certain limits. Beyond these limits we must not go, within them we may, as may be required by due inter comparison with the testimony of other independent data.

Now, a cataclysm of such magnitude, as the fall of a "former," Super-firmamental ring of water, drift, etc., would certainly disturb the ordinary terrestrial conditions for a long time. To effectually resist, and sustain the shock of such a phenomenon, a huge, buoyant, ship shaped, well provisioned ark, alone, was suitable.

REMARKS.

To provision it, and anticipate a long confinement therein would require the highest degree of organization, skill and scientific knowledge.

But occupants so circumstanced would be necessarily limited as to space, and equally forced to be extricated from their position at the earliest possible moment.

Now consider these conditions, and all the others which may be fairly added, as so many functions in a mathematical equation. Each of them has its maximum and minimum, and each its mean. So, too, the equation itself has its corresponding limits. But some of the functions are imperative in their translation, and demand that the solution shall not exceed a certain length of time. For instance, the size of the Ark limits the capacity to store food and occupants, this, therefore, is limited by the ordinary conditions of life, etc., etc.

The Mosaic solution of this problem is the "record" of a FACT, and is expressed in the round, full term of "ONE SOLAR YEAR." Moreover, his solution is *accurate* beyond the microscope of modern science!

In an appendix (J) at the close of this Study we discuss the size of the ark based upon the Mosaic account. It was more than ample for the voyage, Why our own Navy is soon to have a vessel that is expected to carry coal enough to steam around the globe, and we look upon such a vessel of 10,000

tons' burden as a monster. We would not hesitate to provision, equip and commission it for a year's trip, and yet the ark was more than ten times this tonnage !

Moreover, not a few endeavor to belittle the ark by referring sarcastically to Barnum's Circus and Menagerie as if an hundred car loads, with which number even Barnum never dared to travel, would have exhausted the capacity of the Tebah built by Noah !

The ark would have stored 10,000 *Carloads* each of 10 tons of 2500 pounds each—our own gross ton being only 2240 lbs.!

But more of this anon, and in its proper place ; it is sufficient to say that the objections to the Deluge and its incidents as recorded by Moses are founded upon arrant ignorance in the premises.

VII MONTH. 1656 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. —>
	[The Period of "Prevalence" continues, but reaches its terminal day in this month, and is succeeded by a similar Period of "Abatement" that is, the waters there- after begin to withdraw towards the Equa- tor, and to return to their place in the caverns below the earth.	51 131 52 132 53 133 54 134 55 135 56 136 57 137 58 138 59 139 60 140 61 141 62 142 63 143 64 144 65 145 66 146 67 147 68 148 69 149 70 150 1 2 3 4 5 6 7 8 9 10	5 6 Sat. 20 1 2 3 4 5 6 Sat. 21 1 2 3 4 5 6 Sat. 22 1 2 3 4 5 6 Sat. 23 1 2 3 4 5 6	a b c d e f g h i j k l m n o p q r s t u v w x y z α β γ δ
Plate II.				
Plate I.				
Gen. viii. 4. "D."	The Ark rests on Ararat.			
Gen. vii. 20, 24. Gen. viii. 2, 3. Gen. vii. 20, 24. "B."	The "Natural" rains slack up. "The Prevalence" of the waters ends. The Flood "turns." Beginning			
Gen. viii. 1. to colon :	of "the Abatement." The Ark is			
Gen. viii. 1.	Moored. The wind is sent forth.			
Gen. viii. 3. "I."	The waters assuage continually.			

“OF THE GENEALOGIES.”

Cross Refer- ences. ←	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. “The Alma- nack,” i. e. Days of 1656, A. M.	Absolute Lunar Year i. e. No Intercala- tions 1708.	Flood. Days, i. e. True Solar Year, 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	178	9	132	86425	604973	
b	2	9	10	133	“	4	
c	3	180	11	134	Ends.	5	
d	4	1	12	135	86426	6	
e	5	2	13	136	“	7	
f	6	3	14	137	“	8	
g	7	4	15 ☾	138	“	9	Full Moon.
h	8	5	16	139	“	604980	
i	9	6	17	140	“	1	
j	10	7	18	141	Ends.	2	
k	11	8	19	142	86427	3	
l	12	9	20	143	“	4	
in	13	190	21	144	“	5	
n	14	1	22 ☾	145	“	6	Last Quarter.
o	15	2	23	146	“	7	
p	16	3	24	147	“	8	
q	17	4	25	148	Ends.	9	
r	18	5	26	149	86428	604990	
s	19	6	27	150	“	1	
t	20	7	28	151	“	2	
u	21	8	29	152	“	3	
v	22	9	iv ☾	153	“	4	New Moon.
w	23	200	i	154	“	5	
x	24	1	2	155	Ends.	6	
y	25	2	3	156	86429	7	
z	26	3	4	157	“	8	
a	27	4	5	158	“	9	
β	28	5	6	159	“	605000	
γ	29	6	7 ☾	160	“	1	First Quarter.
δ	30	207	8	161	86429	605002	

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SOCIAL, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

(q) "And Noah *only* remained alive, and they that were with him in the ark." (vii. 23.) And the ark rested in the seventh month, on the seventeenth day of the month, upon the mountains of Ararat (viii. 4). (It is here to be noted that the 150 days are not yet over. Hence the waters were unabated and Ararat itself (Gen. vii. 20) must have been wholly submerged 15 cubits or $31\frac{1}{4}$ feet. Therefore the ark's draft was $31\frac{1}{4}$ feet, or one half of its height over all, and it grated and came to land under such circumstances).

(t) "And God remembered Noah, and every living thing and all the cattle that was with him in the ark; (Gen. viii, 1.)

(v) And God made a wind to pass over the earth and the water assuaged" (viii. 1). The fountains also of "*the deep*," and the windows of heaven were stopped (emptied, exhausted?) and the rain (*i. e.* even the ordinary rain under the *new* conditions) was restrained" (viii. 2).

(t, onwards for 150 days). "And the waters returned from off the earth, in going and returning:" (viii. 3) (*i.e.* in collecting, and adjusting themselves to the "equatorial excess," and receding from the "upper latitudes," and as they went, more and more, light once more breaking through the clouds, absorbed the normal $\frac{1}{5}$ into the atmosphere, and the earth gradually commenced to acustom itself to the new condition of affairs.) "And *after* the END of the hundred and fifty years the waters were abated" (viii. 3) (*i. e. commenced* to abate).

EXPLANATIONS.

It must not be overlooked that the Mosaic account is at all points self-consistent. Returning now to the original account of the *Creation*, we find (Gen. i. 1-8), an earth born out of water; formless, void, and darkness brooding over it. So again in the Post-diluvian regeneration the same "natural law" obtains, and out of water does the dry land gradually appear. But with this difference, that "the Deep," the waters above the firmament, are no longer sustained above in the vault of heaven as an impending ring of certain doom. Light, too, plays its part, as at the first, and, scattering the gloom and clouds, breaks in, and brings about its magic work. The "former earth," devoid of oceans, and with its single body of central water gathered into "one place" (i. 10) whence its four rivers ran abroad, is probably for the most part now submerged

a "lost Atlantis" still, but the continents that *now* are *then were too* (with due regard to Geology). But we need not here anticipate the subsidence of the superincumbent flood. From "*after the end*" of the hundred and fifty days of "prevalence," just terminated, there now extends another "period," one of "abatement" equally as long, during which the earth slowly emerges, as we shall gather from the Inspired record.

REMARKS.

The present commentator is aware of differing from other "believers," as to the "date" *from* which to enumerate the 150 days of "Prevalence." But he feels fully justified in this difference and is confident that a critical study of the entire Flood period (of 365. + days duration) as set forth in this "Almanac" bears out and necessitates the conclusions to which he has arrived. Thus he includes the 40 days of Rain *in* the period of Prevalence, and thereafter balances this latter period by a similar one of abatement, to wit: 150 days. This leaves 65.242 + etc., days, for the removal of "the covering," and the final preparations for the "exit." Moreover, it satisfies the demands of a critical study of the subordinate periods into which the final 150 days of "water" are divided. Thus "the tops of the mountains" are not seen until the 221st Solar day of the Flood, and on the 261st day we read that "the waters were still on the *face* of the whole earth." Now with the

301st day the "abatement" terminates, and, allowing the 7 days, with which the Lunar year then terminates, as a natural period of "pool"-drying the Deluge as such was over. We do not find it absolutely stated that "the waters were dried up from off the earth" until the 1st day of the 1st month of the 601st year (*i. e.* the beginning of the next Lunar year) which was the 309th Solar day of the Flood period! From this standpoint, and counting the 301th as a *dry* or at least a "drying" day, there extend $65.242 +$ solar days to the "exit."

But there were several stages to the drying process, as will be evident so soon as the account is critically examined—*i. e.* carefully examined or in the spirit of the *Highest* criticism, by which, as already defined, we mean analyzed upon the basis of belief and with a view to getting at "the truth, the whole truth and nothing but the truth"—and we shall discuss them in their proper place.

VIII MONTH. 1656 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. —>
	<p>[The "Abatement" at its height, the wind in its labors, the Ark at rest, but clouded in dense fog and darkness]. The waters subside in this 70 days down from <i>their</i> summit, or high water mark, to the top of Little Ararat. When this is uncovered then the "tops" [i. e. plural] of the mountains are seen.</p> <p>How long before the 15 cubits or $31\frac{1}{4}$ feet were fallen through can be determined, approximately by Mathematics, but the problem is not to be solved by simple Solid Geometry alone; there are other overruling conditions.]</p> <p>Central Day of Flood Year.</p> <p>[The 183rd Solar day of true Solar year 1656 A. M., or 1657 Astronomical <i>duration</i> since the first sunset of Creation.] $1+181+1+181+1=365$, in which the first and central and last are Sabbath days!]</p>	11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39	Sat. 24 I 2 3 4 5 6 Sat. 25 I 2 3 4 5 6 Sat. 26 I 2 3 4 5 6 Sat. 27 I 2 3 4 5 6 Sat. 28	a b c d e f g h i j k l m n o p q r s t u v w x y z α β γ

"OF THE GENEALOGIES."

Cross Refer- ences. ←	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. "The Alma- nack," i. e. Days of 1656, A. M.	Absolute Lunar Year i. e. No Intercala- tions 1708.	Flood. Days, i. e. True <i>Solar</i> Year, 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	208	9	162	86429	605003	
b	2	9	10	163	86430	4	
c	3	210	11	164	"	5	
d	4	1	12	165	"	6	
e	5	2	13	166	"	7	
f	6	3	14 ☾	167	"	8	Full Moon.
g	7	4	15	168	"	9	
h	8	5	16	169	Ends.	605010	
i	9	6	17	170	86431	1	
j	10	7	18	171	"	2	
k	11	8	19	172	"	3	
l	12	9	20	173	"	4	
m	13	220	21 ☾	174	"	5	Last Quarter.
n	14	1	22	175	"	6	
o	15	2	23	176	Ends.	7	
p	16	3	24	177	8643	8	
q	17	4	25	178	"	9	
r	18	5	26	179	"	605020	
s	19	6	27	180	"	1	
t	20	7	28	181	"	2	
u	21	8	v ☾	182	"	3	New Moon.
v	22	9	1	183	Ends.	4	
w	23	230	2	184	86433	5	
x	24	1	3	185	"	6	
y	25	2	4	186	"	7	
z	26	3	5	187	"	8	
a	27	4	6	188	"	9	
β	28	5	7	189	"	605030	
γ	29	236	8 ☾	190	Ends.	605031	First Quarter.

NOTES ON PRECEDING MONTH

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

“And the waters decreased continually” (Genesis viii. 5). See next month.

From now on, or rather from the commencement of the “assuaging,” on the 151st Solar day of the Flood Period, there was little chance of extraneous incident, until we come to the day on which the *near-by* “tops of the mountains,” of Ararat, were seen. (See tenth month, 1656 A. M.)

One of the primary elements of truthfulness in a historical narrative is its own internal consistency and its agreement with necessary conditions (where nature is also concerned). Now, aside from the entire rejection of the Flood story, (which precludes any right to investigate, *ipso facto*, and stultifies the objector,) the Mosaic account is at perfect internal harmony with itself. The two accounts of creation, *i. e.* the creation of the “former” (or Adam’s) earth, and of this “present” one of Noah, are in accord, within the limits of the *specified* differences. Thus they are both born out of water, over both dark-

ness broods, out of both dry land appears, etc., etc.

Let us therefore look more closely at the circumstances surrounding this Noachic *recreation*. At the time we now have under consideration, the atmosphere must have been densely saturated with moisture, fogs, and clouds.

Extended outlook must have been utterly impossible. The ark though moored was still "at sea," in more than "London darkness," more than "Egyptian" even; and, under the influence of the special "wind," which was now passing over the earth (Gen. viii. i), it would have been driven before the gale, and inevitably wrecked, had it not already come to rest, upon the summit of Ararat. Naught to the contrary, and in view of the fact that it continued at rest after this "wind" commenced, it was probably still further shored thereby. But all this while the waters were assuaging, and thus leaving it more and more firmly on its natural "ways." At length "there was Light!" not the full burst of sun, and day, but lucence only, born dimly and diffused. It was through such light as this, grown broader by the 70th day, that Ararat's still storm-washed summits could be first descried. Noah's horizon was circumscribed by the natural conditions with which he was surrounded, and it is ridiculous (within the limits of the story as a true one) to bring sunlight in, save by mere temporary rifts in the necessarily closely superincumbent clouds and mists.

IX MONTH. 1656 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. →
"C."	[The "Abatement" progresses, "wind" at its height, fog, darkness, and mist surround the Ark, hardly broken by the light of noon], <i>such</i> days as are elsewhere described as "neither light nor dark," not clear, but a twilight as it were, [Zech. xiv. 6-7.]	40	I	a
		41	2	b
		42	3	c
		43	4	d
		44	5	e
		45	6	f
		46	Sat. ²⁹	g
		47	I	h
		48	2	i
		49	3	j
"K."		50	4	k
		51	5	l
		52	6	m
		53	Sat. ³⁰	n
		54	I	o
		55	2	p
		56	3	q
		57	4	r
		58	5	s
		59	6	t
"F."		60	Sat. ³¹	u
		61	I	v
		62	2	w
		63	3	x
		64	4	y
		65	5	z
		66	6	a
		67	Sat. ³²	β
		68	I	γ
		69	2	δ

"OF THE GENEALOGIES."

Cross Refer- ences. ←—	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. "The Alma- nack," i. e. Days of 1656, A. M.	Absolute Lunar Year i. e. No Intercala- tions 1708.	Flood. Days, i. e. True Solar Year. 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	237	9	191	86434	605032	
b	2	8	10	192	"	3	
c	3	9	11	193	"	4	
d	4	240	12	194	"	5	
e	5	1	13	195	"	6	
f	6	2	14	196	"	7	
g	7	3	15 ☉	197	Ends.	8	Full Moon.
h	8	4	16	198	86435	9	
i	9	5	17	199	"	605040	
j	10	6	18	200	"	1	
k	11	7	19	201	"	2	
l	12	8	20	202	"	3	
m	13	9	21	203	"	4	
n	14	250	22 ☾	204	Ends.	5	Last Quarter.
o	15	1	23	205	86436	6	
p	16	2	24	206	"	7	
q	17	3	25	207	"	8	
r	18	4	26	208	"	9	
s	19	5	27	209	"	605050	
t	20	6	28	210	"	1	
u	21	7	29	211	Ends.	2	
v	22	8	vi ☿	212	86437	3	New Moon.
w	23	9	1	213	"	4	
x	24	260	2	214	"	5	
y	25	1	3	215	"	6	
z	26	2	4	216	"	7	
a	27	3	5	217	"	8	
β	28	4	6	218	Ends.	9	
γ	29	5	7 ☽	219	86438	605060	First Quarter.
δ	30	266	8	220	"	605061	

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

Or ["and the waters were in going and decreasing] until the tenth month" (Gen. viii. 5). See preceding and following months.

We are dealing with a stupendous event in our terrestrial history, and yet with one which we maintain finds more than plausible support in Geology, and from the Nebular Hypothesis.

From the nature of the case it can have no repetition. It is *unparalleled*, and not *to be* paralleled in this world's history, and for obvious astronomical reasons. And yet it *will be paralleled* in that of other worlds, and this beneath the focus of our very telescopes!

The flood was a "natural" event, inevitably due to the "reign of law." It is nowhere claimed, by Moses, that it was "supernatural," rather does he imply the reverse of this proposition.

But how shall we account for it? The answer is simple. Bearing the Mosaic account fully in mind, (that is, from the *beginning* of Genesis to the *end* of

its VIIIth chapter,) and not forgetting the conclusions of practical Astronomy, let one pause beside the first fine telescope near which he comes, and turn it full upon the planet Saturn, ringed with water—"a great deep"—far above its "firmament," and with rings of "drift," and threatened as inevitably with a "Flood" as ripe fruit *with a Fall!*

It is aside from the scope and object of this treatise to go *deeply* into what, as to natural events, may have been the astronomical "occasion" of the Flood. Its *cause* was *gravity!* Whether rotation failed by the direct will of God Almighty, in the watery ring above the firmament, or whether, in due process of contraction, it naturally broke, or whether it was shivered by a comet, is immaterial to the issue. What *is* essential is this; that the oldest authentic history on earth—the Hebrew Scriptures—detail the account fully. And this account, when put beneath the closest scrutiny of modern science, is as chronologically correct as if it was the record of an "Eclipse," or a "Transit of Venus." We find in it, in fact, an accuracy, as to internal harmony, and to absolute astronomical data, quite as surprising to the modern premises of disbelief as are the "natural" facts and flood-phenomena to which it bears such unerring testimony! Genesis is not only consistent with itself, with the Nebular Hypothesis as best understood, with our Planetary system as our telescopes reveal it, and with Geology, but its consummate accord with Chronology, as an absolutely

astronomical and unerring science, is, by this very Flood-record, put upon such an astounding foundation of TRUTH that temerity herself must needs pause ere she longer dares to stultify her own convictions. We make, therefore, the following nine "counts," for the deep consideration of such as desire a "natural" foundation for belief in the Mosaic Flood in addition to the historical traditions and testimony of all mankind as to its fact.

I. Genesis i. 7 indicates a vast volume of water above the firmament: *There is none now*. Genesis also indicates that when this earth was only a Protoplasmic world it was covered with water, and so is not inconsistent in *re-covering* it therewith, when in due time natural law may have required it.

II. The Nebular Hypothesis is agreeable to both of these possibilities; *i. e.* an original, spherical ultimate, where into all the waters were absolutely driven, and which ultimately became a ring of water, drift, and fluid, about this very earth.

III. Saturn probably has just such a ring, or system of rings, and will one day have just such a flood.

IV. It *may* never have "rained" as such, before the Flood, but a sort of geological hothouse condition may have necessarily existed under the firmamental waters, agreeably to natural physics under special conditions which do not now obtain.

V. Genesis is agreeable; Moses wrote consistently

with this supposition and even records it as a fact (Genesis ii. 5-6!).

VI. The Flood may, therefore, have been a natural event in the Planetary system, which Noah may have been led to understand, and anticipate thoroughly. In the meantime the rest of the antediluvians confirmed in the "constancy of all things" may have been just as confident in their disbelief until too late save to rue it.

VII. In such a case, the "Rainbow" could and would have been a *new* phenomenon under the new order of things after the Flood, and would have been "placed" naturally in the clouds of the *first* sunshower the earth ever saw,—Mr. Ingersoll and all others to the contrary notwithstanding!

VIII. And thus it would have had a pointedly double significance to Noah and his immediate family, who, (in memory of the "Bow of waters" which had spanned the "former" vault of heaven, as the very harbinger of a Doom which they alone had survived,) could see in it not only a beautiful semblance of its *predecessor*, but (*ipso facto*, as the natural consequence of a state of affairs in which "rain" as we understand it had at last become possible,) could understand, as we their descendants never can, its full significance as a *Token* of the *Covenant* which God had made with all terrestrial nature by virtue of the very Flood itself wherewith the world was washed and purified!

IX. And, finally: with such arguments as the

foregoing reasonably in favor of the Record, and agreeable to the principles of "Science" as we call it, and with nothing but the arrogance of our own personal inexperience against it, or our wilfulness, the balance of the Credibility is certainly with "Moses and the Prophets" and with "Christ and the Apostles!" *

* "Much has been written by some men to the effect that as the rainbow is a natural phenomenon it cannot be regarded as unknown to the antediluvians. Hence that it could not be a sign of a covenant between God and man that the waters shall no more become a flood to destroy all flesh.

"To deal with the above sceptical statement let us go a little deeper into science. We read of the flood and the rainbow in Genesis viii. and ix. We are told that Noah went into the ark, and the rain began on the 17th of the 2d month; and from the fifth chapter of Genesis we find that the flood was in 1656. The date as one of the *lunar* year, which has 354 days, is 11 less than the solar period, which has 365 + days. If therefore we divide 1656 by 7 (the number of years which the observance of weeks of seven days produces by bringing the same dates round again upon the same dates of the week) we find that 1656 was the 5th of the cycle of seven. Hence, as a boy in a two-penny school-board will see, these 11 days in the 5th year will make the 17th of the 2d month, or the Biblical date of the flood to be the first day of the new solar year—23d of Sept., when the sun crosses the line at the autumnal equinox, which was always the beginning of the Biblical solar year. The fruits of the earth were then ready, and Noah doubtless stored the ark with them at this most suitable period of the year. We also find that Noah was 365 days, or a solar year in the ark. Therefore when he came out it was the most suitable period of the year for seeing the rainbow. It could then be in its largest and most handsome form, according to the present constitution of the world.

That there was some alteration in the constitution of the world, and most probably in the atmosphere, is an opinion held by many

men. The opinion is grounded on the fact that after the Flood patriarchal lives dwindled down speedily to 400, 300, and 120 years, as will be seen by comparing the lives of the post-diluvian patriarchs, given in Gen. xi., with the antediluvian patriarchs given in Gen. v. The atmosphere seems to have become more humid. Instead of "a mist or dew, from the earth, watering the ground," vegetation is now reared by rain. There is therefore sufficient evidence to allow the conclusion that there was no rainbow before the flood.

That the years of the patriarchs were precisely those mentioned in Gen. v. and xi. is conclusively shown by the application of astronomy to the measurement of time, because we find that the years given are required by the periods of the eclipses and transits as we now see them."

J. B. Dimbleby in "ALL PAST TIME," 1887.

X MONTH. 1656 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. —>
Gen. viii. 5. "D." Plate I. "E." "F."	Tops of the Mountains seen. [i. e. near at hand through the breaking gloom.]	70	3	a
		1 71	4	b
		2 72	5	c
		3 73	6	d
"F." Plate IV.	The central dates of Period of Abatement.	4 74	Sat. ³³	e
		5 75	1	f
		6 76	2	g
		7 77	3	h
	The recession of the waters was the natural result of overcoming their original rotary motion, which they brought with them in their fall, and expended against the globe. This, neutralized by friction, the earth's own centrifugal motion, and spherical shape, brought them to their "full," "turned" them, and they fell back towards and into the equatorial excess, by gravity, etc., filled up the sea, and the subterranean oceans.	8 78	4	i
		9 79	5	j
		10 80	6	k
		11 81	Sat. ³⁴	l
		12 82	1	m
		13 83	2	n
		14 84	3	o
		15 85	4	p
		16 86	5	q
		17 87	6	r
		18 88	Sat. ³⁵	s
	Before the Flood there was but one sea, and it was mostly "under the earth," now there are many, and they are both under and on it.	19 89	1	t
		20 90	2	u
		21 91	3	v
		22 92	4	w
		23 93	5	x
		24 94	6	y
		25 95	Sat. ³⁶	z
		26 96	1	a
		27 97	2	β
		28 98	3	γ

"OF THE GENEALOGIES."

Cross Refer- ences. ←	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. "The Alma- nack," i. e. Days of 1656, A. M	Absolute Lunar Year i. e. No Intercala- tions 1708.	Flood. Days, i. e. True Solar Year, 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	267	9	221	86438	605062	
b	2	8	10	222	"	3	
c	3	9	11	223	"	4	
d	4	270	12	224	"	5	
e	5	1	13	225	Ends.	6	
f	6	2	14 ☾	226	86439	7	Full Moon.
g	7	3	15	227	"	8	
h	8	4	16	228	"	9	
i	9	5	17	229	"	605070	
j	10	6	18	230	"	1	
k	11	7	19	231	"	2	
l	12	8	20	232	Ends.	3	
m	13	9	21	233	86440	4	
n	14	280	22 ☾	234	"	5	Last Quarter.
o	15	1	23	235	"	6	
p	16	2	24	236	"	7	
q	17	3	25	237	"	8	
r	18	4	26	238	"	9	
s	19	5	27	239	Ends.	605080	
t	20	6	28	240	86441	1	
u	21	7	vii ☾	241	"	2	New Moon.
v	22	8	1	242	"	3	
w	23	9	2	243	"	4	
x	24	290	3	244	"	5	
y	25	1	4	245	"	6	
z	26	2	5	246	Ends.	7	
a	27	3	6	247	86442	8	
β	28	4	7	248	"	9	
γ	29	295	8 ☾	249	"	605090	First Quarter.
.							

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

(a.) "In the tenth month on the first day of the month were the tops of the mountains seen" (Gen. viii. 5). "And it came to pass at the *end of forty days*, that," etc., (Gen. viii. 6) see next month.

Now from the "time of day," on this first day of the tenth month, when the "tops of the mountains were seen" to the same "time" on the next, or second day of the month, was one day in duration, and therefore the expression "at the end of *forty days*" necessarily brings us to a corresponding hour of the 41st day forward. In such a reckoning we naturally include the 1st day. To simplify the question it is best to regard the enumeration in the first column in the Calendar as one of "*duration*," and so number the 2d day of the month as 1, *i. e.*, 1 day ended. In this way the date opposite to which 40 falls will be the one intended in the Mosaic account, *i. e.*, Sunday, the 12th day of the eleventh month *q. v.* Now this matter is of far more importance than at first appears, as we shall

explain in the column headed "Remarks." In the meanwhile, as to the *time* on this "first day" when "the mountains were seen": This we believe to have been after "sunrise," *i. e.*, after at least its first twelve hours had expired. In the remarks on the Eighth month we have shown how little light Noah could have had at this time, and all the circumstances point to the "morning" of the day rather than the "evening" as the time reasonably intended.

EXPLANATIONS.




(a.) That is *the tops of the mountains of Ararat*. For an examination of the Geography will show that there were no others near enough (under the existing circumstances), nor *high* enough (relatively to Ararat), *to be seen!* In other words, all through the 69 days which preceded this 70th day (dating from the 20th day of the 7th month) the waters had been falling $4058\frac{1}{4}$ feet! For (on the basis of the Mosaic account, *i. e.*, that whereon we are arguing), as the waters did not *begin* to abate until six days *after* the ark had *rested* "upon the mountains of Ararat," the tops of these mountains must then have been covered full 15 cubits by the *unabated* waters; and therefore *these* are the ones, which now, after 69 days of abatement, and on the 70th day thereof, are just visible. Ararat is a double mountain, hence, the Ark resting upon the broad summit of one peak, the twin summit could

easily have been seen, under the implied circumstances. And, dependent, too, upon the real outlook offered by the “window,” the more remote parts of the very mountain top upon which it rested could also have been seen.

Yet, nevertheless, there *still* remained a vast sphere, or ovoid, of water, beneath these summits, and above the hills and surface of the ground (!) whose volume would have to recede (towards the equator) and otherwise assuage before Noah could venture to send out his winged examiners.

REMARKS.

The days from Creation must be reckoned logically and consistently from Sunset *via* Sunrise to Sunset again. Thus Tuesday, the first of this month may be schemed as follows.

		Sun		Set		
DAY	"Night"	Gloaming				Evening
		Midnight				
		Dawn				
	"Day"	Sun		Rise	Morning	
		"Tops of the Mts. seen"		High Noon		
				Sun			Set

Now it must have been towards the "*end*" (or in the "morning") of the first day that the mountains were *seen*, and thus the *end*, or "morning," of the 40 days of duration naturally brings us to Sunday, the 12th day of the 11th month.

N. B. All of the important *working* days in this record thus fall, as they *should* fall, upon "week days," not on a "Sabbath." And by glancing over the calendar it will be seen that they generally fall upon *first* days of the week, which to the "Ancient" was what Monday is to the "Christian." Now the fitness of this Sequence of "First days of the week," as dates of marked import in Noah's journal, is as apparent as its thorough demonstration, by this calendar now at last recovered, is remarkable and manifest. Unless this were so we would have Noah "opening the window," evidently a mechanical undertaking of considerable labor, and later on commencing the still more difficult task of removing "the covering" of the ark upon Sabbath days! (Gen. ii. 1, 2, 3!) *i. e.*, "*working!*" which would be a Chronological *reductio ad absurdum* of the whole story, from the patriarchal standpoint! The sequence of the "week days" as laid down in this calendar cannot be shaken, and if they proved that Noah "Labored" on the Sabbath they would throw discredit on the record!

XI MONTH. 1656 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. —>
	[Mists begin somewhat to clear, and the "wind" probably to subside more or less.]	29 99	4	a
	In this month Noah looked out upon "the earth that now is"—a new one, born as at first out of the water!	30 100	5	b
	The absence of the "Ring of Water" which had formerly been "above the firm- ament" must have been a matter of great Astronomical interest to Noah and those with him in the Ark.	31 101	6	c
		32 102	Sat. ³⁷	d
		33 103	1	e
		34 104	2	f
		35 105	3	g
		36 106	4	h
		37 107	5	i
		38 108	6	j
Gen. ii. 1-3.	A Day of Rest, not of work.	39 109	Sat. ³⁸	k
Gen. viii. 6-9, 14.	Tops of the High hills bare. Window opened "in the morning." Raven re- leased. Dove sent forth and returns.	40 110	1	l
Plate I.	1	1 41 111	2	m
	2	2 42 112	3	n
	3	3 43 113	4	o
	4	4 44 114	5	p
"B."	5	5 45 115	6	q
Gen. ii. 1-3.	6 A Day of Rest. *	6 46 116	Sat. ³⁹	r
Gen. viii. 10.	7 Dove sent forth in "the morning."	7 1 117	1	s
Gen. viii. 11.	8 Dove brings Olive leaf in "the even'g"	8 2 118	2	t
Plate I.	9	1 3 119	3	u
	10 *The foliage of the Olive groves begins to project at the base of	2 4 120	4	v
	11 Ararat, i. e., "foot hills and	3 5 121	5	w
	12 slopes bare."	4 6 122	6	x
Gen. ii. 1-3.	13 A Day of Rest.	5 7 123	Sat. ⁴⁰	y
Plate I.	14	6 8 124	1	z
Gen. viii. 12.	15 Dove sent forth and does not return.	7 9 125	2	a
	16	1 10 126	3	β
	17	2 11 127	4	γ
	18	3 12 128	5	δ

“OF THE GENEALOGIES.”

Cross Refer- ences. ←	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. “The Alma- nack,” i. e. Days of 1656, A. M.	Absolute Lunar Year i. e. No Intercala- tions 1708.	Flood. Days, i. e. True Solar Year. 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	296	9	250	86442	605091	
b	2	7	10	251	“	2	
c	3	8	11	252	“	3	
d	4	9	12	253	Ends.	4	
e	5	300	13	254	86443	5	
f	6	1	14	255	“	6	
g	7	2	15 ☾	256	“	7	Full Moon.
h	8	3	16	257	“	8	
i	9	4	17	258	“	9	
j	10	5	18	259	“	605100	
k	11	6	19	260	Ends.	1	
l	12	7	20	261	86444	2	
m	13	8	21	262	“	3	
n	14	9	22 ☾	263	“	4	Last Quarter.
o	15	310	23	264	“	5	
p	16	1	24	265	“	6	
q	17	2	25	266	“	7	
r	18	3	26	207	Ends.	8	
s	19	4	27	268	86445	9	
t	20	5	28	269	“	605110	
u	21	6	29	270	“	1	
v	22	7	viii ☾	271	“	2	New Moon.
w	23	8	1	272	“	3	
x	24	9	2	273	“	4	
y	25	320	3	274	Ends.	5	
z	26	1	4	275	86446	6	
α	27	2	5	276	“	7	
β	28	3	6	277	“	8	
γ	29	4	7 ☾	278	“	9	First Quarter.
δ	30	325	8	279	“	605120	

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

(1) "Noah opened the (a) window of the ark which he had made (viii. 6) and he sent forth a raven which went forth to and fro (or in going forth and returning) *until the waters were dried up from off the earth*" (viii. 7) (compare viii. 13).

"Also he sent forth a dove from him, to see if the waters were abated from off the *face of the ground*" (viii. 8).

"But the dove found no rest for the sole of her foot, and she returned unto him into the ark, *for the waters were on the face of the whole earth*: then he put forth his hand and took her, and pulled her in unto him into the ark" (viii. 9). (s) And he stayed yet other seven days: and again he sent forth the dove out of the ark" (viii. 10). (t) "And the dove came in to him *in the evening*:" and, lo, in her mouth was an olive leaf plucked off: so Noah knew that the waters were abated from off the earth" (viii. 11). (a) "And he stayed yet other seven days; and sent forth the dove; which returned not again to him any more" (Gen. viii. 12).

It had found Rest !

The expression that "Noah knew that the waters were *abated*" is a relative one, not that "the abatement" was *over*, in the sense of completed, but rather, well progressed. For there yet remained 32 days (*i. e.* 118 to 150) to the *end* of "the abatement" and 8 more, *i. e.* 40 in all to the day of their final drying,—the last day of the Lunar year! This sequence of 8s is remarkable and submitted to students of Mystic Numbers !

It was, in fact, as per the record, not until the 110th day of "the abatement," or the 261st of the whole flood period, that Noah presumed to "open" the window, and risk a "Raven" and a "Dove" as messengers abroad, and even then affairs were hopeless for the latter. The Raven, however, more at home in such a scene, and capable of "*resting*" on the bleak crags of Ararat, and the tops of the high hills soon after fully in view far below them, went "to and fro," from that time on, "until the waters were dried up." In another week, however, the Dove, *too*, found that the assuaging waters had reached the olive limits at the base of Ararat's foot-hills, etc. Hence it apparently remained out over *that* day's termination, and came back "in the evening" of the next. For, as Noah's days commenced at "evening" (*i. e.* with sundown, and no hour to send out such a messenger), the dove was probably sent out early "in the morning" of the day in question which was the 117th of "abate-

ment," and came in at nightfull *i. e.* after the sunset beginning of the new 118th day of abatement. Upon the 125th day of abatement the dove again goes forth, finds rest, and comes again no more unto the ark. And still, for 34 days longer, *i. e.* until the full end of that Lunar year, and over the first day of the next (which was a Sabbath) Noah continues to wait before he finds it judicious to commence *uncovering* the ark!

Three different Hebrew words have been rendered "window" in our Version of the Flood! No wonder, therefore, we are more or less confused in the premises! The first word, *Arubbah*, אַרְבָּה occurs twice (Gen. vii. 2, and viii. 2). Young's Concordance gives it "woven work"—"the woven work of heaven" was broken up—an appropriate term to designate the System of rings that fell upon the doomed earth.

The second word *Tsohar* צֹהַר occurs but once in the Bible, to wit, in the Specifications of the Ark as given by God to Noah (Gen. vi. 16). Young translates it "a bright object." The word has given commentators more trouble than any other, and there are all sorts of conjectures upon its use and object.

They have, apparently, made a mountain out of a mole hill, for while it occurs in the singular only, this one time in the Old Testament, "it frequently occurs in the dual number, in which it denotes the light of the Sun at high noon, when he stands over

our heads." This *Tsohar* which God commanded to be made was a complete arrangement for *light and air*. We might translate it—"a ventilating skylight shalt thou make to the Ark!"

The *third* word *Challon* חלון occurs some twenty-seven times in the Bible and is always correctly translated "a window," signifying exactly what the words imply to us. Now it is noticeable that no mention of *this* window (and there were undoubtedly dozens of them around the Ark!) is made in the Specifications; Noah simply made it as he made other and fitting things called for by the commonsense realization of his model as a whole. It was one of these windows that Noah opened upon the 12th day of this Eleventh month in order to give exit to the Raven and the Dove.

EXPLANATIONS.

(e) The opening of the window seems to have been a permanent affair. There is no record of its being "closed" again. Now this is not a captious point of small moment, and wholly overwrought. It is similar in significance to the record of a very opposite event in Chapter vii. Verse 16., where "the Lord" closed the door; or "*Shut* Noah in." We take this literally, at its full weight, and believe that Moses here implies a fact, and with a purpose, to wit: that, *thus* closed, the door was *beyond* Noah's control, beyond any mortal or immortal power, save that of Him who shut it. So in

the matter of "the window" which *was*, as per implication, under Noah's control, it is opened by him on this the 261st day of the Flood period, the 110th of the Abatement, and *left* open, and this indicates, too, the beginning of settled clemency in the hitherto disturbed atmosphere, a partial clearing off of mists, fogs, clouds and overcharged moisture, a quieting of the "wind" (viii. 1), etc. It may be objected that the magnification of such points as these, is, as it were, "straining out gnats and swallowing camels." So be it, we do magnify them, and legitimately. There are no trivial points in the Mosaic account and its critical investigation upon sound Astronomical and Scientific principles, leaves so little for objectors to seize upon that they are welcome to wrestle over what they may consider "small," to their hearts' content! In the meantime it is but fair to the Mosaic account to take its brief hints and spread them open to discussion in all their bearings; and it is only in the spirit of endeavor after "the truth, the whole truth and nothing but the truth," that these Studies are conducted.

REMARKS.

Finally, in this connection, and as another argument in favor of the small point of the permanent opening of "the window, it is to be noted that from this first day (1) of its freedom, the Raven seems to have gone in and out" of the opened

window, *i. e.*, “to and fro” (Gen. viii. 7) until the Lunar year of the Genealogies closed, after which it returned no more.

(a) Upon its third release or discharge from the Ark, the dove remained away, *i. e.*, returns not again to Noah. Thus, the first living creature that actually left the Ark permanently and took up its abode in the regenerated world was the Dove, the very *emblem* of the Spirit of Him who had “moved over the face of the waters” at Creation’s dawn (Gen. i. 2),—the *earnest* of the Comforter yet to come, and a beautiful renewal of the primeval promise unto Eve! (Gen. iii. 14, 15), and it dwelt among the olive groves!

XII MONTH. 1656 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. →
"B." Gen. viii. 3. Plate I.	19 [The "waters" are now in the last 20 stages of "Abatement," and are <i>abated</i> 21 on the 22nd of this month, with which 22 date the 150 days of abatement end.]	4 129 5 130 6 131 7 132	6 Sat. ⁴¹ 1 2	a b c d
	23 It is followed by a week of drying, 24 which closes the Lunar year.	8 133 9 134	3 4	e f
	25 The whole Mosaic account of the 26 Deluge is a consistent recital of a vast 27 universal Astronomical Phenomenon.	10 135 11 136 12 137	5 6 Sat. ⁴²	g h i
	28 It cannot be made to fit a mere "local 29 affair." The Mosaic Chronology alone 30 proves it!	13 138 14 139 15 140	1 2 3	j k l
	31	16 141	4	m
	32	17 142	5	n
	33	18 143	6	o
	34	19 144	Sat. ⁴³	p
	35	20 145	1	q
	36	21 146	2	r
	37	22 147	3	s
	38	23 148	4	t
	39	24 149	5	u
	40 End of the Abatement. Hence [v]	25 150	6	v
	41 The Drying commences.	1	Sat. ⁴⁴	w
	42	2	1	x
	43 This "drying" dealt with the pools 44 and superfluous water here and there	3 4	2 3	y z
	45 upon the earth.	5	4	a
	46	6	5	β
	47 Calendric Lunar Year ends at | "mean" sundown, i. e., 6 P. M. |	7	6	γ

"OF THE GENEALOGIES."

Cross Refer- ences. ←	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. "The Alma- nack," i. e. Days of 1656, A. M.	Absolute Lunar Year i. e. No Intercala- tions 1708.	Flood. Days, i. e. True Solar Year. 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	326	9	280	86446	605121	
b	2	7	10	281	Ends.	2	
c	3	8	11	282	86447	3	
d	4	9	12	283	"	4	
e	5	330	13	284	"	5	
f	6	1	14	285	"	6	
g	7	2	15 ☾	286	"	7	Full Moon.
h	8	3	16	287	"	8	
i	9	4	17	288	Ends.	9	
j	10	5	18	289	86448	605130	
k	11	6	19	290	"	1	
l	12	7	20	291	"	2	
m	13	8	21	292	"	3	
n	14	9	22 ☾	293	"	4	Last Quarter.
o	15	340	23	294	"	5	
p	16	1	24	295	Ends.	6	
q	17	2	25	296	86449	7	
r	18	3	26	297	"	8	
s	19	4	27	298	"	9	
t	20	5	28	299	"	605140	
u	21	6	ix ☾	300	"	1	New Moon.
v	22	7	1	301	"	2	
w	23	8	2	302	Ends.	3	
x	24	9	3	303	86450	4	
y	25	350	4	304	"	5	
z	26	1	5	305	"	6	
a	27	2	6	306	"	7	
β	28	3	7	307	"	8	
γ	29	354	8 ☾	308	"	605149	First Quarter.

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

(v) "And after the end of the hundred and fifty days the waters were abated (Gen. viii. 3). Whether this part of the record refers to the same period, as does verse 24, Chapter vii., or not, still and nevertheless the 150 days of "abatement," which are the counterpart of those of "prevalence," extend to the date assigned them in the month now under consideration. The grammatical position of this clause in the sentence covered by verse 3, chap. viii. (all of which chapter from 1 to 3 inclusive refers to events subsequent to the 150th day of "prevalence"), fairly implies that it does in reality have reference to the *second* period of 150 days "*after the end*," of which as a chronological fact it states (*i. e.* in the past tense) that "the waters *were abated*." (For further discussion of this point see Remarks on the 7th month.)

The ordinary, and casual reader of the Bible, coming to verses 4 and 5 of chapter viii., would naturally suppose that the resting of the ark on the

17th of the 7th month (viii. 4) was due to the "abatement," and that the decrease in the waters (viii. 5) dated from this resting of the ark. The calendar shows this was not the case, nor was it so intended to be understood by Moses. As a historian he could follow but *one* thread of his recital *at a time*. Hence in verse 4 he *reverts* to an event which finds its date strictly in the period of "*prevalence*." Immediately in sequence, however, he *returns* to the subject under consideration in verses 1 to 3, and *ipso facto* is in that of the "*abatement*."

EXPLANATIONS.

It is only in such a calendar, as the one we are studying, that the natural sequence of the periods and their incidents becomes apparent. In the light thus afforded we not only can understand the historian better, and follow his account, but we are forced into astonishment at the astronomical accuracy and minuteness with which his periods arrange themselves and his dates chime with the eternal dial of the heavenly bodies.

Now until such a Study as the present was set on foot (and pushed incisively home, with the most careful scientific minuteness with which we can compass it) no modern student could have dreamed that the Mosaic recital involved anything deeper than a mere record of events. That it also fitted and still fits into the cogwheels of universal chronology, and is perfect, beyond criticism, from the

scientific and astronomical standpoints is a dilemma for the infidel.

REMARKS.

(w) This *preliminary* drying, in so far as the earth, etc., is concerned, or *final* period as to the complete disappearance of the waters commences 4^h 12^m 25^s + after sunset on the 22d of this month, *i. e.* on the “sixth day,” some four, etc., hours after its sunset beginning. It is concerned with the remnants of the waters which remain here and there in pools, etc. It lasts eight days, *i. e.* until one day after the end of one week, or until 4^h 12^m 25 + sec. after the end of the calendric Lunar year. This *nominally* terminates at the opening sundown of 1st day of the next month—but *absolutely* runs on beyond sunset and until 12^m to 25 + sec. after 10 o'clock P. M. of that day. So that it must have been “in the evening” of that day and sabbath (*q. v.*) that, as per the record, it is announced that “the waters were dried.”

(*v*) With the end of this Lunar year, the Raven, (which had been going to and fro from the ark since its first release on the 12th of the last month (*q. v.*) makes its last journey (“back”); for thereafter it remains away. Its final journey *to* the ark may be fairly put upon this last day of the Genealogical Lunar year, *i. e.* the 29th of this month, or at the approach of its closing sunset; so that logically we must enter against the *next* time of light, *i. e.* the

“morning” of Sabbath, the first of the next month that the Raven was lost (Gen. viii. 7). Thus the Ark loses its second living creature and the earth gains it. This time an “*unclean* bird” (Deut. xiv. 14. Lev. xi. 15) which takes the Sabbath as befitting for its exit.

I MONTH. 1657 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. —>
Gen. viii. 13, 7.	48 "Waters dried up." Raven lost.	8	Sat. ⁴⁵	a
Gen. viii. 13.	49 Removal of "Covering" commences.	9	I	b
"B."	[And the "ground," and "earth" [a] also, <i>begin</i> to dry.] Process lasts a full month. Noah's [Lunar] Birthday, "601 yrs. old." [and thus entering <i>upon</i> , or <i>into</i> his 602nd Lunar year, but still 600 Solar years old, although <i>in</i> his 601st Solar year. Such as cannot <i>see</i> the full force of these distinctions, in the light of the very method in which, individually, they reckon their own years and ages, are certainly incapable of pronouncing judgment for or against this record. It is a simple scientific form of expression as old as the human race and universally employed by all its sections who are sons of Noah.]	I 10	2	c
		2 11	3	d
		3 12	4	e
		4 13	5	f
		5 14	6	g
		6 15	Sat. ⁴⁶	h
		7 16	I	i
		8 17	2	j
		9 18	3	k
		10 19	4	l
		11 20	5	m
		12 21	6	n
		13 22	Sat. ⁴⁷	o
		14 23	I	p
		15 24	2	q
		16 25	3	r
		17 26	4	s
		18 27	5	t
		19 28	6	u
		20 29	Sat. ⁴⁸	v
		21 30	I	w
		22 31	2	x
		23 32	3	y
		24 33	4	z
		25 34	5	a
Gen. viii. 13.	End of removing "Covering" of Ark.	26 35	6	β
Gen. viii. 13.	"And looked, and behold,	36	Sat. ⁴⁹	γ
Gen. viii. 13.	the Face of," etc. [See next month.]	37	I	δ

“ OF THE GENEALOGIES.”

Cross Refer- ences. ←	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. “ The Alma- nack,” i. e. Days of 1657, A. M.	Absolute Lunar Year i. e. No Intercala- tions 1708.	Flood. Days, i. e. True Solar Year, 1656 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	1	9	309	86450	605150	
b	2	2	10	310	86451	1	
c	3	3	11	311	“	2	
d	4	4	12	312	“	3	
e	5	5	13	313	“	4	
f	6	6	14	314	“	5	
g	7	7	15 ☾	315	“	6	Full Moon.
h	8	8	16	316	Ends.	7	
i	9	9	17	317	86452	8	
j	10	10	18	318	“	9	
k	11	11	19	319	“	605160	
l	12	12	20	320	“	1	
m	13	13	21	321	“	2	
n	14	14	22 ☾	322	“	3	Last Quarter.
o	15	15	23	323	Ends.	4	
p	16	16	24	324	86453	5	
q	17	17	25	325	“	6	
r	18	18	26	326	“	7	
s	19	19	27	327	“	8	
t	20	20	28	328	“	9	
u	21	21	29	329	“	605170	
v	22	22	x ☾	330	Ends.	1	New Moon.
w	23	23	1	331	86454	2	
x	24	24	2	332	“	3	
y	25	25	3	333	“	4	
z	26	26	4	334	“	5	
a	27	27	5	335	“	6	
β	28	28	6	336	“	7	
γ	29	29	7 ☾	337	Ends.	8	First Quarter.
δ	30	30	8	338	86455	605179	

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

(a) "And it came to pass in the six hundred and first year" (*i. e.* Calendric year, as per Noah's "Almanac," or the so-called 1657 *Lunar*-Calendric year A. M., which thus commences *ahead* of the (1657 A. M.) *Solar* year, still running, by an amount of days due to the corresponding quantity of intercalation outstanding), "in the first month, the first day of the month, the waters were dried up from off the earth:" (Gen. viii. 13, as far as colon :) (see also Gen. viii. 7).

(b to s) "And Noah removed" (*i. e. began*) (on this first day, or first *working* day of this new week), to remove "the covering of the Ark" (Gen. viii. 13). (An undertaking not to be accomplished by any means in *one* day! but lasting rather and more probably *throughout this whole month*).

(b to s) "And looked" (*i. e.* at length, and suggestively according to the construction of the sentence, after the covering was all removed, when he could minutely examine affairs in every direction far and wide over the earth).

(s) “ And behold, the face ” (*i. e.* the *surface*) “ of the *ground* was dry ” (Gen. viii. 13). (But evidently nothing was reliable *beneath* the surface, hence we find a subsequent “ drying ” of “ *the earth*,” as noted in the next month.

All through this month (it may be fairly gathered from the nature of the case, and the consensus of the whole account) the labor of removing the Covering of the Ark progresses, Sabbaths excepted. The *huge size* of the Ark, 300 x 50 x 30 *cubits*, and the *great strength* with which it must have been built to withstand the shock of the falling Deluge (a broken satellite of water, and “ drift ” in rings ” about the earth !), and the *care* with which it had been constructed, during years and years of labor (how many of the 120 which preceded the Flood we do not know, but perhaps all of them were employed in constructing this ship), being taken into consideration we may form a just estimate of the task involved in the removal of “ the covering ” or roof ! In view of all these circumstances, we do not think any too much time has been assigned to the task. At any rate, we prefer to err upon the commonsense side of the subject (since it is, as to this particular point, merely a conjecture as to dates and duration). An error on this side of the subject is certainly more reasonable than the one which has heretofore found almost universal belief, to wit ; that this covering was removed in a *single* day, and that a *Sabbath* day ! (as our calendar shows the 1st day of this month must have been !)

In the meantime the sun was at work upon the surface of the *ground*. For the "standing waters" having been dried up, by the first of this month, the next step in the process was the "surface" drying, which had to precede the final stage of "earth" drying. Relatively speaking this "surface of the ground" period is a long one, and naturally so; for the surface, freed of water, must have been in the state of the very softest mud, and this to a considerable depth. Its retentive powers, its capillary nature, and the fact that, as the process continued, it tended to hinder the operation on the adjacent underlying layers are enough to account for this delay. We see the same thing going on to a limited extent in *Egypt*, yearly, after the final subsidence of the overflow of the Nile; indeed all of these stages find their relative counterparts upon the cultivated bottoms of that land of Floods. Thus we have the rise of the Nile, or its "prevalence," its fall, abatement or assuaging; the drying of the standing pools, the surface drying of the ground, and finally the drying of the Land, or earth of Egypt; nor do we doubt but that a comparative study of the two cases will shed light upon the general Flood.

SUPPOSED RUINS OF AN ANTEDILUVIAN CITY.

"THE city of Sepharvaim, which is mentioned in Isaiah xxxvi. 19. and 2 Kings xviii. sometimes called Sippara, was older than Babylon, and for that

and other reasons supposed to be an antediluvian city. Its ruins were discovered by Mr. Rassam several years ago. One of the gangs of men, who were digging under his directions, came upon the wall of a chamber, the examination of which showed that it belonged to the old Babylonian style of building. In a corner of the chamber, about three feet below the surface, was found an inscribed coffer, inside which was deposited a stone tablet covered with inscriptions. These state that Sutu, a wicked enemy, carried off the property of the sun-god and destroyed the sanctuaries. The building was subsequently restored by Simmos-Sigu. There is a date to the inscription "Babylon, month Nizan, 20th day and 31st year of Nabu-apla-iddin, King of Babylon." This date is remarkable, as it is like one in the Bible, and thus indicates that the residents of ancient Babylon were the immediate descendants of Noah, using the same names for the months. What gives additional interest to the discovery is that Sepharvaim is mentioned as the oldest city in the world, and a place where the ancient records of Chaldea and Greece state that the second father of mankind (Noah) resided and buried the Antediluvian records. Alas! these were probably those which the "Sutu, the wicked enemy, carried off." There are however thousands of inscriptions, and we are glad to learn that a fund has been subscribed in Boston, U. S., for the purpose of carrying out explorations. The locality is called Aboo-habba, and the ruins are those of the temple and city of Sepharvaim in Babylonia, six miles from the river Euphrates."

J. B. Dimbleby, in "ALL PAST TIME."

II MONTH. 1657 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. →
Gen. viii. 13. "B."	"The face of the Ground was dry." [See last month. The "Earth" now remains to be dried, and so continues "to dry" until the 27th of this month.]	38 I 39 2 40 3 41 4 42 5 43 6 44 7 45 8 46 9 47 10 48 11 49 12 50 13 51 14 52 15 53 16 54 17 55 18 56 19 57 I 58 2 59 3 60 4 61 5 62 6 63 7 64 I 65 2	2 3 4 5 6 Sat. ⁵⁰ I 2 3 4 5 6 Sat. ⁵¹ I 2 3 4 5 6 Sat. ⁵² I 2 3 4 5 6 Sat. ⁵³ I 2	a b c d e f g h i j k l m n o p q r s t u v w x y z a β γ
Compare Gen. { vii. 1-5.	[Final Preparations for Exit begun.]			
"B. I." Plate III. Gen. viii. 14. Compare[vii.1-5] Compare[vii.1-5]	The Earth Dried. Nom'l end Solar year. Door of Ark opened, 4 o'clock A. M. i. e. in the "evening" and Exit from Ark, 4 o'clock 1m. 15.98s. A. M. The unloading of animals progresses, etc.			

"OF THE GENEALOGIES."

Cross Refer- ences. ←	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. "The Alma- nack," i. e. Days of 1657, A. M.	Absolute Lunar Year i. e. No Intercala- tions 1708.	Flood. Days, True Solar Year. 1656 A. M. & 1657 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	31	9	339	86455	605180	
b	2	32	10	340	"	1	
c	3	33	11	341	"	2	
d	4	34	12	342	"	3	
e	5	35	13	343	"	4	
f	6	36	14	344	Ends.	5	
g	7	37	15 ☾	345	86456	6	Full Moon.
h	8	38	16	346	"	7	
i	9	39	17	347	"	8	
j	10	40	18	348	"	9	
k	11	41	19	349	"	605190	
l	12	42	20	350	"	1	
m	13	43	21	351	Ends.	2	
n	14	44	22 ☾	352	86457	3	Last Quarter.
o	15	45	23	353	"	4	
p	16	46	24	354	"	5	
q	17	47	25	355	"	6	
r	18	48	26	356	"	7	
s	19	49	27	357	"	8	
t	20	50	28	358	Ends.	9	
u	21	51	xi ☾	359	86458	605200	New Moon.
v	22	52	1	360	"	1	
w	23	53	2	361	"	2	
x	24	54	3	362	"	3	
y	25	55	4	363	"	4	
z	26	56	5	364	"	5	
a	27	57	6	365	Ends.	6	Solar New Yr's instant. 1657 A. M. [1658 Ast.]
β	28	58	7	1	86459	7	
γ	29	59	8 ☾	2	"	605208	

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

(a) “ And in the second month, on the seven and twentieth day of the month, was the *earth* (b) dried ” (viii. 14) (and with the closing sundown the old solar year *nominally* ends, but not the *absolute* year until 10^h 1^m 15.^s98 afterwards ! In the meantime Noah (duly aware of what was to occur) and his family stand ready (at 4 o'clock in the a. m. as we would put it, *i. e.*) at the 10th hour of the day, beside the closed door, when He, the Lord, who “ had shut ” them in (vii. 16) opens it, calls them, and at the *New Year Instant* “ the exit ” is ACCOMPLISHED, *i. e.*

(β) “ And God spake unto Noah, saying ” (viii. 15) “ Go forth of the ark, thou, and thy wife, and thy sons, and thy sons' wives with thee.” (viii. 16.)

And Noah went forth, and his sons, and his wife and his sons' wives with him ” (viii. 18).

“ Bring forth with thee every living thing that is with thee, of all flesh, both of fowl, and of cattle, and of creeping thing that creepeth upon the earth ;

that they may breed abundantly in the earth, and be fruitful, and multiply upon the earth (viii. 17).

(In obedience to which command and in due successive ordering of the debarkation, after his own and that of his family had initiated it, the account implies that the *work* went on until) "every beast, every creeping thing, and every fowl, and whatsoever creepeth upon the earth, after their kinds (families) went forth out of the ark" (viii. 17) during at least a full week. (Gen. vii. 1-7.)

EXPLANATIONS.

After the removal of the Covering, the drying of the ground being over (see δ last month) that of the "earth" progressed until completed as recorded (*a*) in this month. In the meantime general preparations for "the exit" must have been under way. Noah undoubtedly knew when this was to take place, nor could he have left the ark until its door was opened by Him who shut it (vii. 16). The Solar year was now rapidly drawing to its close, and the "earth," as Noah could see, as rapidly drying.

The special preparations for the exit may have begun on Sunday the 21st of this month, *i. e.* the 7th day before the exodus being a similar period to that which preceded the catastrophe (Gen. vii. 4, 10). God himself may have in some manner warned Noah, as on the other occasion, upon the preceding day (Sabbath the 20th). Be all this as it may, at last the final sunset closed the last full day (one of

Rest) spent in the ark, to wit; the 27th day of this month, and the Solar year *nominally* ended. Now we have elsewhere considered the question of absolute time as to the moment of exit, and have shown that every reason favors the indication of the record, that Noah was *out*, AT *and* ON the absolute New Year INSTANT.

REMARKS.

Taking into consideration, therefore, Noah's intimate knowledge of the *raison d'être* of his surroundings, and those surroundings themselves, the sequence of events, after sunset, arrange themselves as follows.

1st. A period of Rest, throughout the ark.

2d. Very early, and time enough before the specified hour to realize its full accomplishment, the Human beings rise, and as 4 a. m. draws near stand ready beside the door, awaiting its opening.

3d. At 4 a. m. (*i. e.* the 10th hour after sunset) the Lord opens the door and commands the eight who were saved to "Come out," which is immediately obeyed, and requires about 1 minute and 15.98 + seconds.

4th. Thus, at 1 minute and 15.98 + seconds past 4 o'clock a. m., and on "Sunday" the "*first*" day of the week, and in reality at the first Solar instant of the *Astronomical* New Year, the which was in every way the most suitable moment of exit in those twenty-four hours, Noah and his family are without

the ark upon *terra firma*, upon the summit of Mt. Ararat, and the 1657th Astronomical solar year was ended, and the 1658th begun.

III MONTH. - 1657 A. M. i. e.

Biblical References, &c. References to Special Notes.	Events of the Flood Period opposite their proper dates.	Subordi- nate Periods in the Mosaic Account	Absolute Sequence of Days of Week from Creation.	Cross Refer- ences. →
<p>"C." Gen. viii. 20-22 and ix. 1-19.</p>	[The Debarkation continues during this week, i. e., until Sabbath the 5th.]	3	3	a
		4	4	b
	Noah "601 Solar Years old," i. e. his "birthday." Debarkation and Altar finished The Sacrifice. The Covenant. The Token.	5	5	c
		6	6	d
		7	Sat. ¹	e
	The Unloading commences.	1	1	f
	[i. e. of Freight proper, stores, treasures, records, material wherewith to recom- mence. This Period may have lasted at least 40 days or until Wednesday, 15th of 4th month. The length, however, is un- stated and immaterial to the issue. The Flood proper, with its 7 days before the fall of the water, and its seven days after Noah's exit, are alone of importance in this treatise. The Solar year 1657, [i. e. 1656 A. M.] is thus <i>fixed</i> by Moses, as a <i>point d' appui</i> , and modern science cor- roborates his accuracy, and must accept it as a synchronism not to be hereafter ignored in any perfect system of Chro- nology.]	2	2	g
		3	3	h
		4	4	i
		5	5	j
		6	6	k
		7	Sat. ²	l
		8	1	m
		9	2	n
		10	3	o
		11	4	p
		12	5	q
		13	6	r
		14	Sat. ³	s
		15	1	t
		16	2	u
		17	3	v
		18	4	w
		19	5	x
		20	6	y
		21	Sat. ⁴	z
		22	1	α
		23	2	β
		24	3	γ
		25	4	δ

"OF THE GENEALOGIES."

Cross Refer- ences. ←	Serial Days of Lunar Month.	Normal or Calendric Lunar Year. "The Alma- nack," i. e. Days of 1657, A. M.	Absolute Lunar Year i. e. No Intercala- tions 1708.	Days of True Solar Year. 1657 A. M.	Serial Order of Weeks from Creation	Serial Order of Solar Days from Creation	Astronomical Data, &c.
a	1	60	9	3	86459	605209	
b	2	1	10	4	"	605210	
c	3	2	11	5	"	1	
d	4	3	12	6	"	2	
e	5	4	13	7	Ends.	3	
f	6	5	14	8	86460	4	
g	7	6	15 ☾	9	"	5	Full Moon.
h	8	7	16	10	"	6	
i	9	8	17	11	"	7	
j	10	9	18	12	"	8	
k	11	70	19	13	"	9	
l	12	1	20	14	Ends.	605220	
m	13	2	21	15	86461	1	
n	14	3	22	16	"	2	
o	15	4	23 ☾	17	"	3	Last Quarter.
p	16	5	24	18	"	4	
q	17	6	25	19	"	5	
r	18	7	26	20	"	6	
s	19	8	27	21	Ends.	7	
t	20	9	28	22	86462	8	
u	21	80	29	23	"	9	
v	22	1	xii ☾	24	"	605230	New Moon.
w	23	2	1	25	"	1	
x	24	3	2	26	"	2	
y	25	4	3	27	"	3	
z	26	5	4	28	Ends.	4	
α	27	6	5	29	86463	5	
β	28	7	6	30	"	6	
γ	29	8	7 ☾	31	"	7	First Quarter.
δ	30	89	8	32	"	605238	

NOTES ON PRECEDING MONTH.

GENERAL CONSIDERATIONS, SACRED, SECULAR,
SCIENTIFIC.

MOSAIC ACCOUNT IN CALENDRIC SEQUENCE
WITH COMMENTS.

During the debarkation of the living freight the account goes on to say :

(d) "And Noah builded an Altar unto the Lord" (viii. 20), and the Altar being finished, and the debarkation over at the close of the working days (6) of the week, the incidents of the Covenant, and Token in reply to the Sacrifice, follow appropriately upon the Sabbath, to wit :

(e) "And took of every clean beast, and of every clean fowl, and offered burnt offerings on the Altar" (viii. 20), "and the Lord smelled a savor of Rest : and the Lord said in his heart, I will not again curse the ground any more for man's sake ; though the imagination of man's heart is evil from his youth ; neither will I again smite any more every living thing, as I have done (viii. 21). While the earth remaineth, seed time and harvest and cold and heat, and summer and winter, and day and night shall not cease" (Gen. viii. 22). "And God blessed Noah and his sons, and said

unto them : Be fruitful and multiply, and replenish the earth " (ix. 1). " And the fear of you and the dread of you shall be upon every beast of the earth, and upon every fowl of the air, upon all that moveth upon the earth, and upon all the fishes of the sea : into your hand are they delivered " (ix. 2). " Every moving thing that liveth shall be meat for you : even as the green herb have I given you all things " (ix. 3). But flesh with the life thereof, which is the blood thereof, shall ye not eat " (ix. 4). " And surely your blood of your lives will I require ; at the hand of every beast will I require it ; and at the hand of every man ; at the hand of every man's brother will I require the life of man " (ix. 5). " Whoso sheddeth man's blood, by man shall his blood be shed ; for in the image of God made he man " (ix. 6). " And you, be ye fruitful, and multiply ; bring forth abundantly in the earth and multiply therein " (ix. 7). " And God spake unto Noah, and to his sons with him, saying, And I, behold I establish my covenant with you, and with your seed after you, and with every living creature that is with you, of the fowl, of the cattle, and of every beast of the earth with you, from all that go out of the Ark to every beast of the earth " (ix. 8, 9, 10).

" And I will establish my covenant with you : neither shall all flesh be cut off any more by the waters of a flood : neither shall there any more be a flood to destroy the earth " (ix. 11). " And God

said: This is the *Token* of the *Covenant* which I make between me and you and every living creature that is with you, for perpetual generations (ix. 12).

“I do set my *bow* in the cloud, and it shall be for a token of a covenant between me and the earth” (ix. 13). “And it shall come to pass when I bring a cloud over the earth, that the bow shall be seen in the cloud; and I will remember my covenant, which is between me and you, and every living creature of all flesh; and the waters shall no more become a flood to destroy all flesh” (ix. 14, 15). “And the bow shall be in the cloud; and I will look upon it, that I may remember the everlasting covenant between God and every living creature of all flesh that is upon the earth” (ix. 16). “And God said unto Noah: This is the Token of the Covenant which I have established between me and all flesh that is upon the earth” (ix. 17).

“And (now) the Sons of Noah that went forth of the Ark were Shem and Ham and Japheth; and Ham is the father of Chanaan” (ix. 18). “These are the sons of Noah; and of them was the whole earth overspread” (Gen. ix. 19).

Now with the next day (f) the labor of unloading the rest of the Ark (stores, treasures, records, etc., of the antediluvian world, such as common sense and opportunity and necessity would have kept) commences.

EXPLANATIONS.

The important events of the present lunar month are, 1st, the completion of debarking the living freight; 2d, the sacrifice of Noah upon its first Sabbath followed by the Lord's blessing, his covenant and the *Token* thereof, and 3d the unloading of the Cargo: the which latter extends indefinitely on, probably to the close of the month, and, if of at least 40 days' duration, terminating on the 15th of the following month.

Now as to these periods which are based upon the corresponding ones at the opening of this Almanac, we need merely say that they are founded upon probabilities only. Yet *well* founded; and capable theoretically of satisfactorily accounting for the facts.

For instance, the debarkation certainly took as long as the embarkation, the which, as per the record, was 7 days and terminated with Noah's own entrance. We have here simply reversed the operation, and Noah having made his exit, the rest followed in due and reverse order. Now the Calendar agrees with this Supposition in a remarkable way, and closes this period with the close of a week.

REMARKS.

Hence we are at an appropriate day (the Sabbath) for Noah's Sacrifice. Whenever this took place it was followed by God's acceptance of it, his

blessing, his covenant and its *Token* to future and, therefore, to our generations.

To Noah and his family the "Rainbow" was of peculiarly pointed significance. It was, as it were, a shadow or semblance of the former "water bow" which spanned the antediluvian world. As Noah understood it, *that* "bow" had been a perpetual *threat* of Flood and disaster. It spanned a firmament which had never seen a drop of "rain;" rain thus became a consequence of its fall—the "rainbow" thus became a natural sequence to a *new Condition*.

It was a beautiful "*token*," therefore, of God's covenant with all terrestrial creation, and, *ipso facto*, a *sign* that there would no more be a Flood upon the earth, since it was a result *of* the Flood and the latter had been brought about by the fall of the "watery bow" that doomed the former earth.

The Sabbath being over, Noah resumed his labors and prosecuted them until the Ark was empty. Ararat was then left and Chronology gives us the subsequent data and sequence of events. (Daniel xii. 10!)

THE FACT OF HISTORY,
OR
THE DELUGE CRITICALLY EXAMINED.

PART V.
APPENDICES.



THE THREE TOKENS.

And “the Great Deep” and “the waters above the Firmament,” even “the woven work of Heaven” were broken up, and rent; and the “Bow of Doom,” a standing threat unto “the world that was,” descended, and swept them all away, save Noe and them that were with him in the Ark. And after that “the Bow of Promise” replaced the former bow in “the world that now is,” the which, however, stands in danger of more fiery doom ere the Day Spring shall arise that is to be the Token of “the world to come.”

APPENDICES.

APPENDIX A.

(q). [FLOOD DAY NO. I., i. e., SABBATH THE 17th OF 2d MONTH
(LUNAR) 1656 A. M.] (q. v.)

THE sequence of incidents upon this "Dies Irae" seem to have arranged themselves as follows: This Sabbath day nominally began, according to the ordinary Calendric Lunar Almanac then in use, at Sunset. At this time and hour (about 6 P. M. as we reckon) the New Solar Year festivities of the rest of the Ante-Diluvians naturally commenced. This necessarily implies an utter desecration, by them, of the Sabbath day, and a total want of faith in what Noah's preaching had been constantly proclaiming as an impending doom.

We may but faintly picture, even to our imaginations, the scene in all its details. Their ribald ridicule of Noah, and his gigantic Ark-load of menageries, perched high and dry upon a world devoid of oceans! And yet without undue license we may seem to see and hear some utter scoffer, amid the reckless feasters around the ark, pointing upwards to the silver "Bow" spanning the sky, "above the firmament," and more beautiful than ever upon this final night and evening of its permanence.

The Aqueous ring must have then still appeared to the Ante-Diluvians as those of Saturn now do to its inhabitants, and so the scoffer calls aloud to Noah, still earnest in his efforts to persuade any one to turn from the wrath to come, and find safe refuge in the Ark, and to him, long after sunset, adds blasphemy to disbelief, exclaiming:

"Where is now thy God? Do not all things continue as at the beginning? Is it not sundown, is not thy Sabbath here? Do we not desecrate it? Are not the hundred and twenty years well over?"

Where is thy Flood? Where is this "rain" upon an earth which never saw a shower? Did we not say, beyond a dew, (Gen. ii. 6.) such things were contrary to all nature? Is not a minute's failure fatal to thy theory? And lo, is it not now nearly four hours after sunset? Away with you! depart to thy companions, thou dost but mar our feast, thou art a fool, thy God doth not exist!"

And so the night deepens, and with it shines, more lovely, the bow fixed in the sky! Noah's family undoubtedly repaired to the Ark at the early hour of Sunset, having but hastily bidden farewell to some few friends still deaf to their entreaties, but Noah himself, faithful to the last, at length turns reluctantly away, and moves, half driven, to the Ark, while yet it wanted but a few minutes to 10 o'clock.

The feast is at its very climax, and at the door of the Ark Noah pauses, looking out in natural human concern, upon an earth so soon to pass away. And what a scene! Few have dared to conceive, to what a degree of civilization, superior indeed to anything we dream of yet, it was not completely possible for this "Lost Atlantis" to have attained in the 1656 years of its peculiarly favorable duration!

But the actual termination of the Solar "time" drew near; and now, in less than thirteen minutes, the absolute New Year's *instant* would be due; and by that moment the advanced sections of the ruptured Ring's must *be* "upon the earth!"

Ten o'clock! and doom has come!

The "Bow of water" trembles, moves from its ancient place, is broken, comes! And with it falls a horror of great darkness.

In pure human dismay, forgetful even of the door of safety, Noah starts back into the Ark, and the feasters, paralyzed with fright, see in that last instant of light, the Ark itself in bold relief still standing with an open door.

But instant with their impulse to fly to it, the Lord himself, before whom, in death already begun, they stand, descends and "shuts" the door, which now no human power, within the Ark or out of it, may open.

For twelve minutes, and a little more than twenty-five seconds, the rush of "the great deep" continues in its downward plunge—Eternity begun! The very fright of that dread period of duration, even its first instant of realized shock, may have mercifully caught away the souls of the great mass of existing human beings. To

many, however, it was a last "respite of grace," and meet, even in its brief continuance, for an acceptable repentance, and as such it came to them literally "in the eleventh hour!" (*i. e.* after Sunset, or in the evening! and in the eleventh hour counting from High Noon!")

The Author has already shown, in "An Important Question in metrology"* (written years ago, 1880-1, and published (1882), before even the idea of the present subject and volume was incepted) that the absolute limit of the atmosphere ("firmament") must be at least 220 miles above the normal face of the earth, and in view of Saturn's condition, and the present study, it seems relatively to have then been at its final degree of attenuation, (*i. e.* in equilibrium with the extraneous æther), at a height of about 250 miles, as a limit.

Now when the falling Ring struck this superior limit it was literally "upon the earth." Previous to that instant it was falling through the nearest approach to a vacuum that nature affords, and had *been* falling for 12 minutes 25.09987046400 + seconds. Hence we may easily estimate the height from which it fell. A body falling in vacuo for this length of time must traverse 1691.07265 miles. For the admitted formula for a body falling under such conditions is as follows: Height fallen in feet = Time (in seconds) squared, and multiplied by 16.083. To wit:

$$H = (t \text{ in sec.}) \frac{2 \times 16.083}{5280} \text{ to reduce the feet to miles.}$$

Adding, therefore, to this distance (1691.07 etc. miles) of the Ring above the Firmament, the height, say 250 miles, of the latter, we have 1941.07265 + miles for the distance above the Earth's surface of the inner Ante-Diluvian "Saturnian" Ring.

Turning now to Saturn itself, as a study of relativity, as to the accuracy of this entirely independent calculation, we note: that (Chambers's "Oxford" Astronomy, page 137) so far as modern science *knows*, its apparent diameter "over all" is 74417 miles, more or less: and that the inner edge of its inner ring (probably aqueous) is 18346 miles above its body, which can often be seen through it. Hence a simple proportion from Saturn may locate the distance of a similar but *stable* system of rings about our earth. Therefore:—

* See book notices close of Study Number One.

74417 : 7900 (diam. of earth in round numbers) :: 18346 : 1947.58 +

i. e. the distance *to* such a ring, still stable and rotating, would be about at the point in space indicated by the Mosaic account, and the 1941 mile distance was at the failing limit of stability!

Now we opine, and further here assert, that if modern hypercritical objection demands the five or six miles needed to make these calculations absolutely harmonious, and which we expressly do *not* want for our unstable point, then the burden of the need rests upon modern science itself, whose own inaccuracy, as to Saturn, (since science cannot be sure of such measurements, and give them forth *ex cathedra*), has been solely responsible for the discrepancy.

We furthermore announce, that the Ante-Diluvian equatorial diameter of the earth was within one mile either way of 7900 miles; that the Firmament was about 250 miles high, and is now about 220 miles; that the "Bow of Water" as it appeared to them, (the ring as it actually was), was 1691 + miles above the limit of the Firmament; that the Ring's breadth was about 1503 + miles; that if there was another, or "drift" ring, its inner edge was about 170 miles across from the outer edge of the inner ring; and that this outer or "drift" ring was about 940 miles in breadth; that all the increase, due to the fall of this system of rings, is now seen in the envelope of present oblateness, which makes our *Post-Diluvian* equatorial diameter, about 7925.648 miles or thereabout. From this now existing excess, whatever may have been the former Polar axis, (the which we believe to be unaltered) we may calculate the volume, depths, periods, etc., of these ancient rings!

APPENDIX B.

THE ABATEMENT, AND THENCE TO THE CLOSE OF THE SOLAR YEAR.

SINCE we have initiated our discussion upon a basis of *accuracy*, and are endeavoring to prosecute it to the last degree of precision afforded by Modern Science, it remains to discuss the subordinate periods into which the Flood as a whole is subdivided.

The absolute instant at which the "Solar year" of the Flood com-

menced, was 4 hours 12 minutes 25.0998704640 seconds past 6 P. M. (*i. e.* mean sunset) on the 604842d day of Creation. Therefore, at a corresponding "time" of the day, the several periods of "duration," into which the account is divided, must have severally ended. Thus, at 12 minutes 25.0998 + etc. seconds past 10 o'clock P. M. on the 604882d day of Creation the 40 days of Rain (*i. e.* days and nights of 24 hours each) ended.

Reasoning on the same exact basis the Period of Prevalence terminated at a similar "*mean*" hour of the 604992d day of Creation, the which instant is thus the origin of the 150 days of Abatement. Let us examine this Entire Period of Abatement as to its several fractional parts in detail, and continue the analysis to the close of the Flood year.

The "*turn*" of the Flood at 10 o'clock 12 minutes and 25.09 + etc. seconds P. M. the 604992d day.

a. The waters subside; and after seventy days (70) the tops of the mountains emerge at this hour on the

(N. B. This enables them to be *seen*, so soon as the sun rises, or so soon as it is light enough *upon* this day.) The amount of subsidence is 15 cubits (or at 25" each is $31\frac{1}{4}$ feet.) + 4027 difference of height of Ararat's peaks = (4058 $\frac{1}{4}$ feet.)

605062 "

b. The waters continue to subside, until an "olive leaf" projecting, is "plucked off" by the Dove, upon its second journey from the Ark. Hence we must assign the *time* of its emergence from the falling waters as 10 o'clock P. M. and 12 minutes 25 etc. seconds. This is the *Sabbath* day. (605108th of Creation). That day *passes*, it being one of *Rest*. With sundown the next commences and early in its time of light the dove starts for the regions at the foot of the mountain, obtains the leaf, and, starting on its journey back, arrives after sundown and therefore "in the evening," consequently in the *next* day as Noah's Calendar regards it. This is 46 days after the the "tops of the mountains" *emerged*.

605108 "

c. The subsidence goes on, and at length the period of Abatement ends, at the same hour, on the 605142d day of Creation, or 34 days after *Olive Sabbath*.

605142 "

d. Thus we have three subordinate periods in the Abatement, 70 days, 46 days, and 34 days; or two general ones, 70 and 80 days, reckoning from the commencement thereof to the appearance of the "tops of the mountains," and from thence to its end. But there is no cessation, and the *drying* (of the waters) immediately commences, and progresses, until the Lunar year ends; and, to reach our proper terminal instant, the waters are "dried up" by and at 4 hours 12 minutes and 25.09 + etc. seconds after the sunset which ushers in the New Lunar Year, *i. e.* after 8 days or upon the } 605150th day.

e. The drying progresses and at a corresponding "time" on the first day of the *next* month, (*i. e.* after 30 full days) the "Face of the ground" is dry. Hence on the } 605180 "

f. And at length, at 4 hours 12 minutes and 25.09 + etc. seconds after sunset on the 27th day of this month the *earth* was dry, and is generally so apparent after sunrise and is so recorded by Noah, who contemplates the earth that day, *it being the Sabbath and one of Rest.* } 605206 "

g. Twenty-four hours more not only end this Sabbath day but bring us to the same instant *i. e.* 10 o'clock and 12 minutes 25. etc. seconds P. M. on the *next* day, on Sunday, *i. e.* 1st day of the week. } 605207 "

h. And there remain, from *that* moment to the moment of *exit*, exactly 5 hours, 48 minutes, 50.885 seconds! which is the absolute and accurate yearly excess (*i. e.* annually) of one year over 365 full days! and brings us to 4 o'clock A. M. and 1 minute, 15.9831526008 seconds on this same } 605207 "

APPENDIX C.

SATURN'S RINGS.

WE shall select a few standard notes from highly esteemed "authorities" concerning the super-firmamental rings of this monster planet, (Saturn) in order to show that the hypothesis of a former

terrestrial ring is not untenable, and that Saturn is threatened with just such a cataclysm as the earth has already experienced—to wit: a deluge!

Chambers, in his Oxford astronomy, comments upon the rings as follows: "There are some particulars relating to the rings (of Saturn) which cannot well be classified Sir J. Herschel estimates their thickness at not more than 250 miles, and G. P. Bond cuts this down to 40. Pierce thinks there are good grounds for supposing them to be *fluid* rather than solid,—*a hypothesis confirmed by various circumstances.*" The italics are our own.

From the Encyclopedia Britannica, ninth edition, under head of Astronomy, we select the following: "Captain Jacobs, at the Madras Observatory, discovered that the dusky ring (*i. e.* the interior one) is semi-transparent, the body of the planet being visible through it (!) Mr. Otto Struve * * finds reasons to believe from a comparison of the measures of Huyghens, Cassini, Bradley, Herschel, W. Struve, Encke, Galle, and himself, that the *inner edge of the interior bright ring is gradually approaching the body of the planet, while at the same time the total breadth of the two bright rings is constantly increasing*" (!).

"The opinion now generally entertained respecting the Saturnian ring-system, is, that it is composed of multitudes of minute satellites, probably intermixed with vapor (!) traveling independently around the planet. On no other supposition, indeed, can the permanence of the ring-system be explained." The italics are in the original.

"Maurice (*Indian Antiquities*) gives an engraving of *Sani*, the Saturn of the Hindûs, from an image in an ancient pagoda. *A circle is formed around him by the intertwining of TWO serpents*, whence the writer infers, that, by some means or other, the existence of Saturn's ring (*rings?*) may have been known in remote ages" (Chambers's Astronomy, p. 124).—Admitted, but what are we *consequently* to infer from the equally ancient Egyptian emblems of the Earth, as the abode of Life and Death, in which she *also* is represented by a ball, but *with the two serpents separated—untwined, ruptured—?* May we not with equal justice regard this most ancient of mystic symbols as indicative that the ancients likewise knew the Earth *too* had once possessed *a system of RINGS*, which *fell*, and all else that this emblem carries with it?

APPENDIX D.

ARARAT.

WE quote the following in *full*, from the Encyclopedia Britannica, ninth edition.

“Ararat. This name, originally designating a whole district of Asia (Gen. viii. 5), has long been appropriated by the uniform usage of Europeans to the lofty Armenian mountain which stands on the confines of the Russian, Turkish and Persian dominions, in lat. $39^{\circ} 42'$ N., long. $44^{\circ} 38'$ E., known to the Armenians as *Masir*, to the Turks as *Ak Dagħ*, and to the Persians as *Kūh-i-Nuh*, or Noah's Mountain. Whether the tradition, which makes it the resting-place of the ark is of any historical value or not there is at least poetical fitness in the hypothesis, inasmuch as this mountain is about equally distant from the Black Sea and the Caspian, from the Mediterranean and the Persian Gulf.

“Another tradition—accepted alike by Christians and Mahometans—fixed on Mount Judi in the south of Armenia as the ark's resting-place. There so-called genuine relics of the ark were exhibited, and a monastery and mosque of commemoration were built; but the monastery was destroyed by lightning in 776 A. D. and the tradition has declined in credit.

“Mount Ararat is the culminating point of the Armenian plateau, which reaches at its base a height of 3,000 feet. From this it rises in a graceful isolated cone (having at its side the more perfect but less lofty cone of Little Ararat) far into the region of perennial snow. It was long believed by the Armenian monks that no one was permitted to reach the ‘secret-top’ of Ararat with its sacred remains.

“The summit, however, has been frequently reached in the course of this century. Tournefort had failed in 1700; the Pasha of Bayazeed had been equally unsuccessful, but on Sept. 27, 1829, Dr. Parrot of Dorpat, a German in the employment of Russia, set foot on the ‘dome of eternal ice.’

“Ascents have since been made by Antonomoff (1834 and 1843); Wagner and Abich (1845); Chodzko, Changhoff, Moritz, and a party of Cossacks in the service of the Russian Government (1850); Major Stuart (1856); and Colonel Monteith (1856).

“ Mr. Freshfield, who reached within about 800 feet of the summit in 1868, thus describes the mountain :—‘ It stands perfectly isolated from all other ranges, with the still more perfect cone of Little Ararat (a typical volcano) at its side. Seen thus early in the season (May) with at least 9,000 feet of snow on its slopes, from a distance and height well calculated to permit the eye to take in its true proportions, we agreed that no single mountain we know presented such a magnificent and impressive appearance as the Armenian Giant.’

“ It has been ascertained that the higher peak, or *Ak Dagħ*, is 17,112 (1,331 higher than Mount Blanc) and the lower, or Allah Dagħ, about 13,085 feet above the level of the sea.

“ That the mountain was of volcanic origin was well-known, but all eruptive activity was supposed to have long ceased. Reineggs was discredited, it may be justly, when he spoke of seeing it in eruption in 1785. But in 1840 there was a vast eruption of sulphurous vapors from its sides, and a tremendous earthquake shook the surrounding country. The village of Arquiri and the monastery of St. James were destroyed, and great damage was done to Nakhchevan, Shasur, and Ardubad.

“ Major Voskoboinikoff’s Report (*Athenæum* 1841. p. 157) was, as Wagner has pointed out, erroneous in some of its details, but in the main trustworthy. There are a number of glaciers in the upper portion, and the climate of the whole district is very severe. The greater part of the mountain is destitute of trees, but the lower Ararat is clothed with birches. The fauna and flora are both comparatively meagre.”

In this connection as bearing with pointed weight upon our topic, and as tending to paraphrase in *modern* “ scientific language ” the very locality used as a Flood-Metron by the Mosaic record, we will quote under “ Asia,” sec. 23. from the *Encyclopedia Britannica*, the following, concerning the “ high hills ” from among which Ararat arises.

Speaking of *Afghanistan, Baluchistan, Iran, or Persia, ARMENIA* and the provinces of Asia Minor,—parts of the extensive plateau of Centro-Western Asia, the article referred to says : they “ occupy this high region with which they are nearly coterminous. The eastern flank of this table-land follows a line of *hills* drawn a short distance

from the Indus, between the mouth of that river and the Himalaya, about on the 72d meridian: These *hills* do not generally exceed 4,000 or 5,000 feet in elevation, *but a few summits reach 10,000 feet or more!*"

The above is quoted because of the peculiar use of the word *hill* in contra distinction to mountain. The language is correct. These are relative terms, and in the region referred to, both the ancient and the modern writer employ them naturally. For instance when Moses tells us, Gen. vii., 19, that "the waters prevailed exceedingly upon the earth; and all the *high hills* that were under the whole heaven were covered," the consensus of his account justifies us in taking Armenia as the *Metron*, and certainly when *its* high hills were covered, we are safe in believing all the *other* "high hills" that were under the whole heaven *must* have been; and of following the account into the regions, strictly "mountainous," where it takes us!

APPENDIX E.

"HEIGHT AND DEPTH."

THE height ($17,112 \pm = 3\frac{1}{4}$ miles \pm) of Mt. Ararat is about equal to the *mean* depth of the sea, each referred to the "sea level" as an origin. And the "Flood guage," which *clears* this summit by $31\frac{1}{4}$ feet ($= 15$ cubits at 25" each) *i. e.* 3.24682 miles above sea level, approximates still more closely to this average "sounding."

Now it is worthy of note by those who already perceive the *scientific purport* of the Mosaic account of the deluge, that terrestrial "height and depth" apparently balance each other in a most remarkable manner. La Place has shown by calculation that owing to the influence of Sun and Moon upon the Earth, the depth of the sea cannot exceed 5 miles, or 26,400 feet; and thus far but one sounding has attained beyond or into that depth From the naval items of the *Army and Navy Journal*, under *Engineering* we quote the following latest data upon:—

"DEEP SEA SOUNDINGS."

"A paper on the mean altitude of the continents and mean depths of the oceans, by M. A. De Tillo, was published in a recent number of the *Comptes Rendus*. From the author's minute researches

Plate IV. See and compa

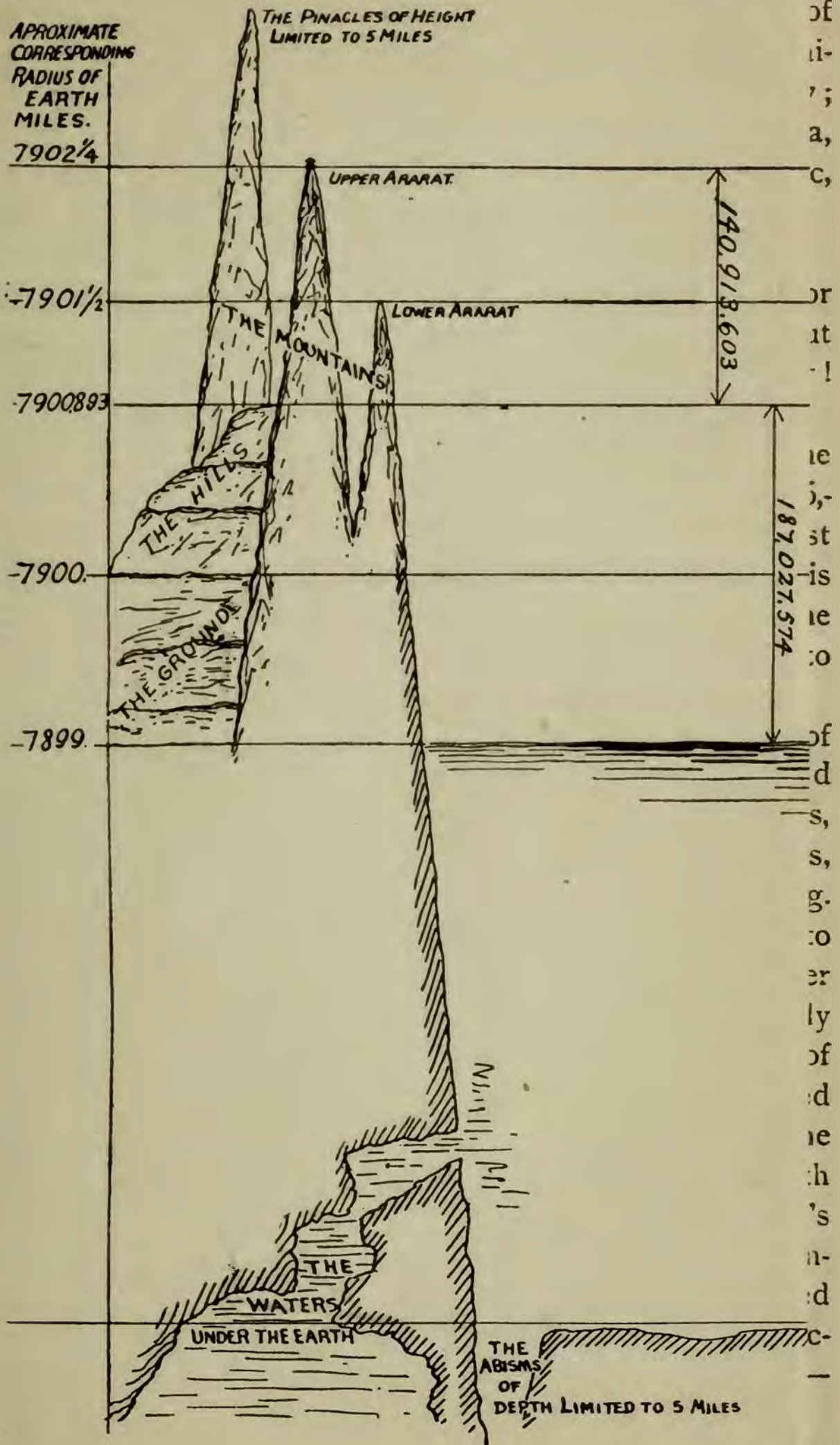
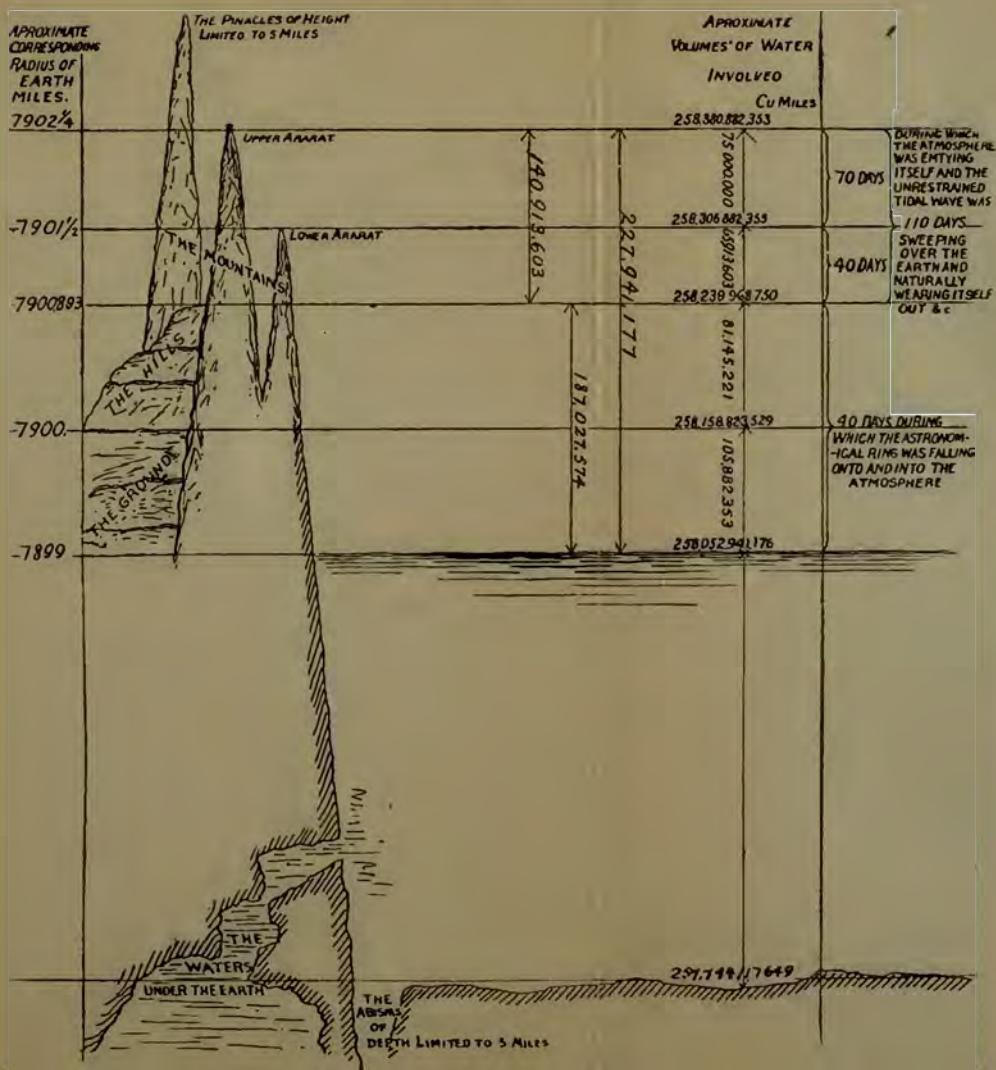


Plate IV. See and compare Plate II.



Heights and Depths.

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APROXIMATE
VOLUMES OF WATER
INVOLVED

Cu. Miles

258,380,882,353

75,000,000

258,305,882,353

65,913,603

258,239,968,750

81,145,221

258,158,823,529

105,882,353

258,052,941,176

70 DAYS

DURING WHICH
THE ATMOSPHERE
WAS EMPTYING
ITSELF AND THE
UNRESTRAINED
TIDAL WAVE WAS

40 DAYS

110 DAYS
SWEEPING
OVER THE
EARTH AND
NATURALLY
WEARING ITSELF
OUT &c

40 DAYS DURING

WHICH THE ASTRONOM-
ICAL RING WAS FALLING
ONTO AND INTO THE
ATMOSPHERE

251,144,17649

it results that the numerical data hitherto accepted by various authorities requires to be modified. He finds the mean elevation of all the continents above sea level to be 693 metres; northern hemisphere, 713; southern hemisphere 634; Europe, 317; Asia, 957; Africa, 612; North America, 622; South America, 617; Australia, 240. Mean depths of all the oceans, 3,803; Pacific, 4,380; Atlantic, 4,022; Indian, 3,674; northern seas, 3,627; southern seas, 3,927."

From this the immense preponderance of water is apparent, for not only does it cover superficially, 4 times the area of the land, but it is on an average 6 times as deep as the elevation of the latter! Surely here is volume enough to have been used for the deluge!

The greatest known depth of the ocean in the Pacific is near the Ladrone Islands, where soundings were made to the depth of 26,850 feet, or a little over five miles. In the Atlantic the greatest depth found is just north of the West Indian Islands, which is 23,230 feet, or nearly four and a half miles. In those parts of the ocean most free from islands, as in the route from Newfoundland to Ireland, the ocean is most shallow, seldom exceeding 12,000 feet.

Her Majesty's surveying ship *Egeria*, under the command of Captain P. Aldrich, R. N., has, during a recent sounding cruise and search for reported banks to the south of the Friendly Islands, obtained to very deep soundings of 4,295 fathoms and 4,430 fathoms, equal to about five English miles respectively; the latter in lat. 24 deg. 37 min. S. longitude 175 deg. 8 min. W., the other about 12 miles to the southward. These depths are more than 1,000 fathoms greater than any before obtained in the southern hemisphere, and are only surpassed, as far as is yet known, in three spots in the world, one of 4,655 fathoms off the northeast coast of Japan, found by the United States steamship *Tuscarora*; one of 4,475 fathoms south of the Ladrone Islands, by the *Challenger*; and one of 4,561 fathoms north of Porto Rico, by the United States ship *Blake*. Captain Aldrich's soundings were obtained with a Lucas sounding machine and galvanized wire. The deeper one occupied three hours, and was obtained in a considerably confused sea; a specimen of the bottom being successfully recovered. Temperature of the bottom, 33.7 deg. Fahr.—*Engineering*. (*A. and N. Journal*, Dec. 1, 1888).

Now a *fathom* is "six feet" (*i. e.* on "Ropes and Cables" *Has-*

well) or on "log lines" 5.95 feet, (*Bowditch*, at 6,120' in a sea mile and a 28' glass). Allowing, therefore, the maximum definition, it will be noticed that the deepest sounding ever made, that off the northeast coast of Japan, 4,655, was *not* five miles! $4,655 \text{ fathoms} \times 6 (-) = 2793 (-)$.

That the full limit will some time, and some where, at length be reached, abysmally, is possible; but it is manifestly more difficult to know *where* to sound for the inverted peaks of "the Abyss," than for those which climb aloft towards the sky in full, clear, human sight.

From the *Encyclopedia Britannica* we quote the following upon the positive side of our proposition. "These mountains (the Himalayan), which are the highest in the world, rise along their entire length far above the line of perpetual snow, and few of the passes across the main ridges are at a less altitude than 15,000 or 16,000 feet above the sea. Peaks of 20,000 feet abound along the whole chain, and the points that exceed that elevation are numerous, the highest hitherto measured being more than 29,000 feet above the sea."

"A mountain range such as this, attaining altitudes at which *vegetable life ceases*, and the support of animal life is extremely difficult," (Brit. Ency.), left above the Flood, as the Mosaic account *does* leave it, would have been but a hopeless refuge long before the 150th day of the prevalence of "the waters"! even if any desperate wight was so luckless as to reach it!

Now as this discussion of mountain heights and ocean soundings, average flood height, and mean sea depth, etc. etc., follows naturally from the Mosaic account, and is *scientifically* suggested by it, (by the very region to which the log book of the assuaging of the Noachic waters refers) it is a subtle verification of the consummate *inspirational* accuracy which lurks beneath the historic surface of the sacred text!

"And the ark rested upon the mountains of Ararat"—*Why?* By *accident*? Be not deceived. ONE guided it who had measured height and depth, who knew it as He knew Geneseret! Moses recorded Facts, but Almighty God selected Ararat and Armenia, and Modern Science, may well study Terrestrial Topography from this lofty standpoint.

APPENDIX F.

THE LOST ATLANTIS.

PHYSICAL Geography, General Astronomy, etc.

As illustrative of the way in which such a rise of water as is implied in the Mosaic Record, would affect a Continent, we shall select an extract from the Encyclopedia, Britannica, which is indirectly *à propos* to our discussion. It is to be noticed, however, that in the Article from which we excerpt (United States, Part II. Physical Geography, page 791), the subject is Continental Drainage, and views the results of a rise of the sea level in quiet, orderly manner, not at all from the standpoint of a general Astronomical Storm resulting from the rupture of a former terrestrial ring such as we believe to have led to the Deluge of Noah.

However, the value of this independent testimony, as to the mere matter of *Submergence*, is particularly to be appreciated, and the reader is asked to bear in mind the height to which ($31\frac{1}{4}$ feet over upper Ararat, *i. e.* 17,143 $\frac{1}{4}$ feet) the Noachic flood lifted the sea level temporarily as per the Biblical record. We have elsewhere, (See Plate I) considered this rise as to the Continent of Asia, so that the following one is of special value in that it deals with the heart of an entirely "New World" and suggests what was the correlative action of the Deluge in the western hemisphere.

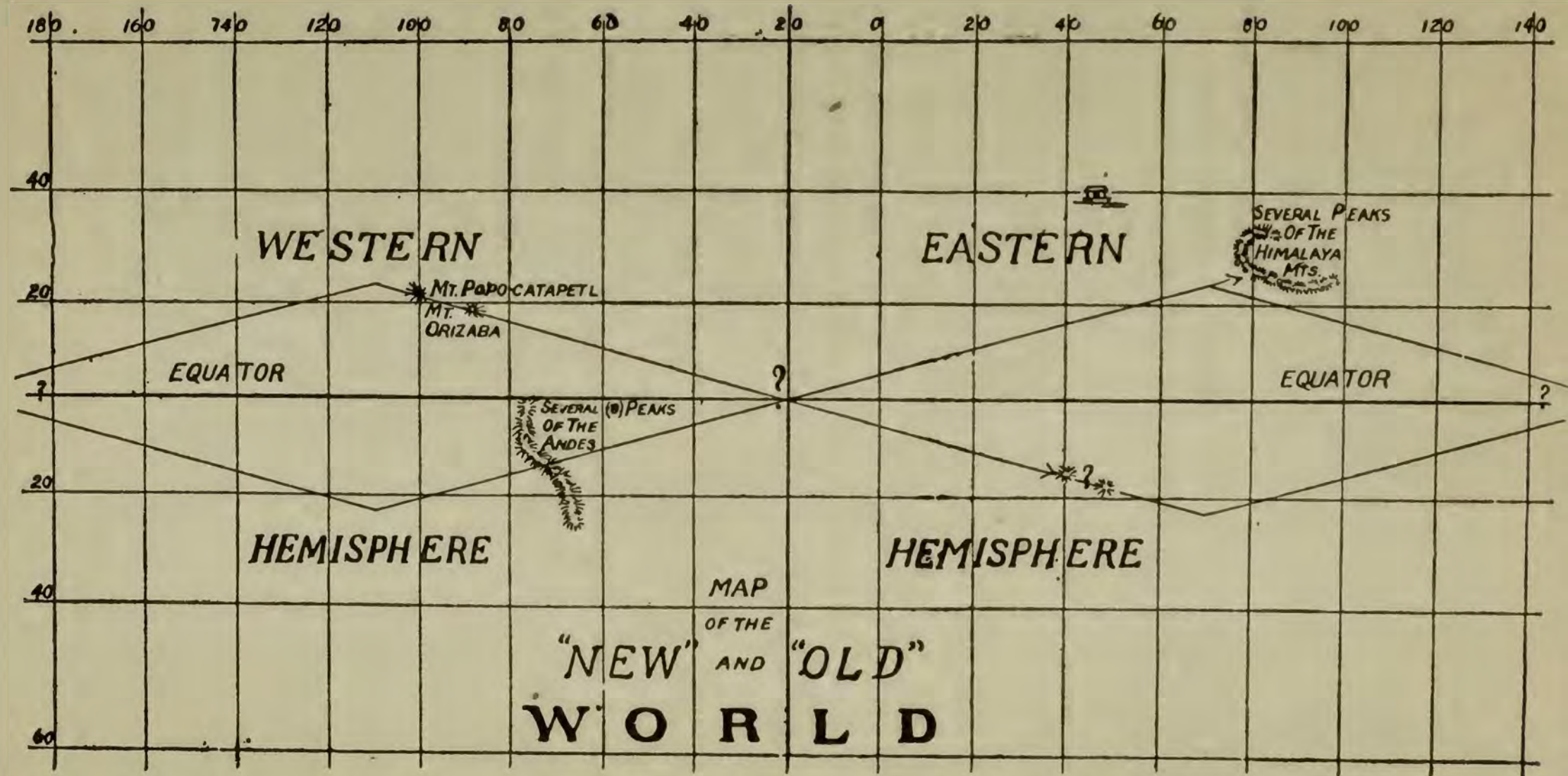
"The drainage areas of the country (U. S.), as given by the United States Census of 1880 are— * * * * The explanation of this overwhelming preponderance of drainage into the Gulf of Mexico at once becomes evident when we notice the general relief of the country and the positions of the various watersheds. If the level of the ocean were raised 1,000 feet, a broad waterway across the American continent would be opened. There would be a great mass of land on the western side, which would comprehend nearly the whole of Mexico, and which within the limits of the United States, would have a breadth from east to west of from 1,500 to 2,000 miles. North of the United States boundary line the breadth of this mass of land would diminish rapidly in width as higher latitudes were reached, but its dimensions would be on a grand scale, although deeply intersected with inlets occupying the positions of the lower portions of the present streams of that region.

"A similar rise of 500 feet in the ocean would not divide the continent into two decidedly distinct and widely separated parts, but would isolate New England from the land adjacent on the north and west by opening a channel through the Hudson River and Lake Champlain depressions, would carry the Atlantic coast-line more than 100 miles inland of its present position, and would open a deep bay in what is now the Mississippi Valley, the ramifying arms of which would extend north nearly to Chicago; to Cincinnati on the Ohio; to Burlington, Iowa, on the Mississippi; and nearly to Jefferson City on the Missouri.

"A rise of sea-level of 2,000 feet would not materially change as to position and size the great land mass on the western side of the continent already spoken of. That area would be slightly narrowed on the east, and would have its western edge more deeply indented, with the addition of groups of islands, so that its character would, south of the Columbia, be something like what it is at the present time north of that river. On the eastern side of the continent, however, the most striking changes would be effected. All the present coherent land mass east of the 97th meridian would have disappeared, and in place of it we would have various groups of islands, one of the most important of which would extend from the north line of Georgia northeast into Pennsylvania and New Jersey, where it would terminate in fingerlike projections, forming northeasterly and southwesterly trending archipelagos, with various outlines in northeastern New York, Vermont and New Hampshire; the highest points of which would rise from 3,000 to 4,000 feet above the surrounding waters."

So much for a mere rise of only 2,000 feet! The reader is referred to the article alluded to, if he desires to follow the rise to 17,143, a "prevalence of the waters" which would leave but two peaks, those of Popocatepetl and Orizaba, projecting a few hundred feet, (573 and 228 respectively), above the flood! Add now to the conception a Sidereal Storm of unparalleled magnitude, a duration of 150 days of rise, and an equal one of fall, and no latitude at all is left for "possible survivors" save such as had *prepared* for the event, by years and years (120) of divinely inspired ship-building, and as to such we have the testimony of the Bible that "Noah only, and those that were with him in the Ark, *were left alive.*"

PLATE II



At the "turn" of the Deluge. 150-151st Day.

In South America but nine solitary peaks untenanted by life, and far above the limits of vegetable existence, or protoplasmic germs, would have remained above the surface, at the 150th day of the prevalence. These, distributed along the Andes, in Bolivia and Peru, are respectively Samara, Chimborazo, Nevado de Sorato, Nevado d'Illimani, Antisana, Cotopaxi, Ariquipa, Descabeçada and Iliniza.

In the meantime all of Africa, except, perhaps, one or two of the Mountains of the Moon, and all of Australia, the whole of Europe, and every island known to Oceanica would have been submerged.

Thus, at the opposite extremities of two terrestrial diameters, a few bleak, hopeless peaks, those of Himalaya, and Zanzibar in the Eastern World, and of the Bolivian and Peruvian Andes in the Western, would have alone remained as indicative that there was aught but water on the wasted globe.

There are many interesting lines of study suggested to the Physical Geographer in the terrestrial diameters thus left—forced above the deluge as it were—and if it shall be found that Africa has in Zanzibar one or two isolated peaks, which will balance, as it were, those of Mexico, the junction of the great circles through the two groups, intersecting and bisecting each other on the equator, at its own junction with the all-important meridian of Ferro, Iceland, Madeiras and Canaries, may perhaps be but one other subtle, scientific pointer, not only to the “Lost Atlantis” of the Ante-Diluvians, but to many Astronomical phenomena, such as those of axial tilting, etc., etc., which we shall owe to Moses and the pen of inspiration!

Surely if the mere study of the deluge leads us to the verge of such suggestive discoveries, as we have found all along our pages, it well behooves “philosophers” to approach the Bible in a different spirit, so that, perchance, they may discover some little of the wisdom that lies underneath its lines, and thereby rectify their own!

What will be found by “deep sea soundings” and “dredgings” beneath the equatorial point marked out by these remarkable lines? What at the opposite extremity of the equatorial diameter—in the midst of the Caroline Islands?

APPENDIX G.

THE PRECESSION OF THE EQUINOXES.

MORE than eight years ago, and while involved in an entirely different line of investigation, the author was led to this same meridian 20° W. of Greenwich, in quite as unexpected a manner. The results of his work were then published, and are here repeated in their original form as purely *ex parte* testimony to the significance of the Meridian now once more so pointedly designated by the Mosaic record of the flood.

This Meridian is

1. The Meridian of the Lost Atlantis.
2. The Wet Meridian of the earth.
3. The Meridian of Columbus.
4. The Divisional Meridian between Eastern and Western Hemispheres.
5. The Meridian of Ferro.
6. The Meridian marked by the Flood of the Mosaic Record, etc., etc., etc.

THE PLEIADIC CYCLE.*

ITS DAWN MONUMENTALIZED AT GIZEH.

WITHOUT entering deeply upon the consideration of the earth references made manifest at the Great Pyramid by the use of the "axial" inch and "sacred" cubit, we must briefly notice one of the most important astronomical features of the monument.

We have already alluded to the accurate orientation of the structure. To an observer stationed down the entrance passage and looking up and out towards the northern sky, the region in his field of vision is very closely circumpolar.

This fact led Col. Howard Vyse to ask the elder Herschel whether the descending passage had ever pointed towards a Polar star? and if so, *when?* and to *what star?*

The astronomer studied the problem deeply and at length answered

* A selection from certain hitherto unpublished "Notes on Pyramid Studies," by the AUTHOR. Reprint from "*The Heir of The World.*" 1883.

that about the year 2170 B. C., α Draco, then the Polar star did, at its lower culmination, shine directly down the axial line of this passage. This fact fixed in the opinion of Herschel the date and age of the Great Pyramid.

Herschel's determination was B. C. $2160 \pm x$, Professor Smyth's (1865) was 2170 or 3340 B. C., and each $\pm x$, Dr. Brunnow's was 2136 B. C. and each $\pm x$, and Prof. Proctor allows the dates 2170 or 3350 B. C. and each $\pm x$: in which x equals a period of years extending both before and after the dates given as the central years, (namely, the dates given are "thereabouts" or "*quam proximè*").

During the whole continuation of this period, say for a century or so, both before and after either 2170 B. C. or 3350 B. C., α Draco would have practically fulfilled the conditions, and been upon the meridian of Gizeh at about midnight; and from its position, either at lower, or upper culmination, respectively, have shone, at the entrance angle, down the axis of the descending passage.

Either of these dates will therefore do as indicative of the Pyramid's age, or at least of the date its erection was intended to commemorate; and were it not for other considerations, historical, astronomical, and otherwise, the problem would be "indeterminate," by about 1,200 years, which is their chronological separation!

Prof. Smyth, and Pyramid students in general, following the calculations of Herschel, lately corrected to indicate 2170 B. C., adhere to this date as undoubtedly the true one; while Prof. Proctor, from a disposition to favor the Egyptological idea of greater antiquity for the Nile country, assumes the earlier date to be the more probable.

The later of these dates is now found to have overwhelming arguments in its favor, while the elder one (3350 B. C.) fulfills absolutely no other condition than that of satisfying the problem and being "eldest." Even Mr. Proctor himself admits the noticeable importance of the year 2170 B. C., as an ASTRONOMICAL LANDMARK *when he is dealing with matters foreign to the Pyramid.*

Let us examine more closely the claims of the nearer of these dates. Since the question was originally mooted it has been discovered that the meridian of the Pyramid at midnight of this year (2170 B. C.) contained, not only the North star, at its lower culmination and of course the Pole itself, and the zenith, but some 90°

away from *α* Draco, above the Pole and towards the south, passed through Alcyone, the chief star of that traditionally honored group, the *Pleiades*.

But, and moreover, for it is even still more remarkable, at the very point where this overloaded meridian crossed the equator, it also *intersected the Ecliptic*. In other words, it passed through the Vernal Equinox or the zero-hour of Right Ascension! It is from this point as an *initial* one that astronomers have always reckoned Time. It corresponds to the XII-hour mark upon an ordinary clock, or to the XXIV-point upon a sidereal chronometer marked off into 24 hours.

Thus it appears that the architect of the Great Pyramid not only employed the entrance tube, and *α* Draco, to assist in the mere orientation of his edifice, but as a means of mathematically fixing, and chronologically identifying, among all others, that particular meridian which, containing the most noticeable star group in the heavens, likewise passed through the Vernal Equinox, from and to which all distances upon the celestial sphere are estimated and co-ordinated.

Through the invaluable researches of Mr. R. G. Haliburton of Nova Scotia, (Halifax) it has been made clear that the earlier generations of almost every nation made use of the Pleiades to mark the return of Spring, and began their years upon that night when this honored constellation was the longest visible. This was, of course, the one when they saw it all night long, or from its rise at sunset, to its setting at sunrise.

Now in 2170 B. C., this longest *Pleiadic* night occurred at the Autumnal Equinox, and in this circumstance especially lies the secret of the association, since that time, among nearly all ancient people, and down to our own days, of the Pleiades with New Year's day.

Even to modern astronomical analysis, the selection of the Autumnal Equinox, is above criticism, as the most suitable day for beginning the year. Its adoption would be in perfect keeping with the general principles of astronomic definition and nomenclature. Thus the civil day begins at midnight, the very hour most remote from broad daylight.

Upon the same principles, the civil weeks, months, and years,

begin at midnight. In the broad light of day it is impossible to determine the relative positions of the sun and earth among the stars. The astronomer is obliged to wait till midnight, and then having found their actual localities, calculates their true places for the next, or any other midday. As this is the true method of astronomy, so it is the correct basis for a perfect chronology.

In the sacred calendar of the Hebrews the years and cycles have always begun at the Autumnal Equinox, and the evening marked the beginning of the day.

If we should let Autumn, as of old, mark the beginning of the year, I ask you to notice how fitting the resulting New-Year's dawn would be. At this moment while the sun, itself invisible, is crossing the Equator at the Autumnal Equinox, the earth, in the true chronological order, is entering the opposite sign of the Zodiac—the sign of Spring.

To this day certain remotely separated and still unaltered savage tribes, as the Australians, Figians, Mexicans, etc., make use of, not Autumn, but of the longest Pleiadic night, as the one on which to begin their year. They can offer no explanation for this custom, it has come down to them by tradition they know not whence.

They are of course in great error, but the explanation of their error is very easy. Wandering away in their migrations from the true source of knowledge, and thinking that the Pleiades, rather than the Autumnal Equinox, marked this New Year's day, they have held to this visible, and easily distinguishable constellation, while the invisible Equinox, of difficult calculation, but the truly essential origin of times and seasons, has drifted away from them in its annual precession.

In remote antiquity (2170 B. C.) the Pleiades and the Equinox, as we have just seen, and been informed by the Pyramid, fell upon its Autumnal midnight meridian, but ever since the year of their actual coincidence, the precession of the Equinoxes westward has left the Pleiades further and further in the east. They now mark no particularly important year-day in the calendar. However, the very error of these descendants of the ancient peoples bears evidence to the original universal existence of an Autumnal New-Year's day, marked by the stars whose sweet influence six months later was to crown the year with Spring.

Both Professor Smyth and Professor Proctor, agree to the facts that in $2170 \pm$ B. C., and for a period of years both before and after, α Draco was below the Pole on the meridian, and Alcyone also upon the meridian, above the Pyramid some 90° (Smyth $89^\circ 16'$ from α Draco (Smyth and Brunnov), this meridian passing through the point of Vernal Equinox, *i. e.*, the O of hours thereon, or the initial point of all astronomical time calculations, be it for days or cycles. The importance of this date 2170 B. C., (which is the central one of the whole period of fulfilment of the Pyramid condition,) cannot be underrated. In his essay on the "Origin of the Week," Professor Proctor [though so hostile elsewhere to the *Pyramid's* use of the date and preferring with the Egyptologists the earlier date 3350 B. C. for the Pyramid's building (though he admits it *may* have been built circa 2170 B. C.,)] refers to the Pleiades and the year 2170 B. C. in terms which every Pyramid student will endorse, and which should completely satisfy the unlearned since it comes from so direct an opponent to "the Religious theory."

He says, "Many years might well pass before men would notice that at the same season of the year the same stars are seen at corresponding hours of the night" * * * "*There is only one group of stars respecting which any exceptions can probably be made—viz., the Pleiades, a group which being both conspicuous and unique in the heavens, must very early have been recognized and remembered.*" * * * "*Almost certainly it was the first known star group*" * * * "We should expect to find that this time would have a very direct reference to *the Pleiades which must have been the year-measuring constellation* as certainly as the moon had been the time-measuring orb." * * * "The epoch to which *we can point with some degree of certainty—the year 2170 B. C., or thereabouts—*must belong not to the infancy of astronomy, but to an era when the science had made considerable progress." * * * "It is certain the epoch above mentioned is related to the Pleiades *in a quite unmistakable manner.* For at that epoch *quam proxime*, through the effects of that mighty gyrational movement of the earth which causes what is termed the precession of the equinoxes, *the star Alcyone, the brightest of the Pleiades and nearly central in the group, was carried to such a position that when the Spring began the Sun and Alcyone rose to their highest in the southern skies at the same instant of time.*"

How Professor Proctor could reconcile the above statements with a repudiation as a Pyramid date, of the year 2170 B. C., in favor of the earlier one 3350 B. C., simply because it is the earlier! is more than he himself explained—the common-sense of the rest of the human race will draw its own conclusions from the facts!

If in man's unlimited and wondrous future he should actually be able to send an exploring expedition to the distant moon, long since a frozen orb, its life gone out from very age, and if such expedition, returning successfully, brings back among other things of interest, a little mechanism that our own wise men shall pronounce undoubtedly to have been a Lunar watch, the simple statement of the Professor Proctor of that day, that it is not so, but that it is all a mere coincidence of moonshine, will have very little weight.

The mere assertion that Lunar relations exist entirely independent of a Lunar watch, if such a thing was ever made upon that satellite, will not prove to reasonable beings that the latter was not an intentional realization of them, any more than such a statement made by the Professor of our day, with regard to the facts built into the Pyramid, convinces careful thinkers that its lines and angles and its grand proportions are only accidents. We take it that Professor Proctor attempted to handle his popular audience, as if it were far more credulous, than does Professor Smyth, and we shall certainly continue to listen to the latter, until Professor Proctor's followers can reason more consecutively from his own premises.

But though the Pleiades have long since ceased to mark the dawn of Spring, they have still other uses at the Pyramid, and more stupendous ones upon the Dial of Eternity.

From his careful study of the proper motion of the stars, Professor Maedler, some years ago, enunciated the startling proposition that the Pleiadic group was undoubtedly at the *centre* of *this* celestial universe.*

All of the stars within the reach of our telescopes appear to be moving in majestic cycles around this notable constellation. But strangely enough, and it is a point that Maedler does not seem to have known, the word Alcyone is very ancient Arabic—it means

* Pleiades in Hebrew is Cymar, *i. e.* the *axle*!

the centre! This star is therefore the *centre* of the *axial* group, and was probably so named at the very beginning of time.

Thus the Pyramid—that wondrous monument, standing at the centre of Egypt, a land occupying the geographical, commercial, and inhabitable centre of the earth's surface—points downwards at the Sun, the centre of our own planetary system; and still more grandly upwards at Alcyone, the sun of the Pleiades, themselves the central constellation of our universe!

Will any intellect, admitting that these things are so, so stultify itself as to maintain that they are purely accidental? Will any man assert that, even if intentional, they demand *no* awe at human hearts?

The year 2170 B. C.—thus remarkably recorded at the Pyramid, is, astronomically speaking, the most important chronological date that has ever transpired during the existence of man upon the earth. It marks the dawn of an astronomic cycle, than which we know, at present, of but one other that is grander.

I intend to prove that this is the most stupendous monument to universal metrology that the human mind can realize, and I want to impress upon you that chronologically (a most important element of the vast science of metrology), the Great Pyramid indicates the one and only true system.

Let me once more call attention to this year 2170 B. C. It synchronizes the coincidence of the meridian of a symbolic monument located at the centre of a central land, with the North star, α Draco, the sun in Nadir, and the great central sun and system of the universe near zenith at the midnight of the dawn of Spring!

With reference to it the celestial machinery is so delicately adjusted that it cannot recur for 25,827 years. During the continuance of this cycle, the equinoxes will slowly retrograde through the whole equatorial dial in rigidly defined yearly amounts.

This Pleiadic cycle of 25,827 years marks the duration of a great year, the *annus magnus*, each day of which is as long as the normal length of a human life:— $365\frac{1}{4}$ times the life of man, three score years and ten, with the solemn period of gestation added is equal to 25,827 years, or to a Pleiadic Cycle! On such a dial then, man's life is literally measured by a day, whose morning sees his birth, whose noon his brief maturity, and whose evening seeks for him in vain!

What a fitting initial year is this one then, 2170 B. C., from which

to reckon universal history! How suggestive such a cycle, divided into its days that span of human life!

We are living in the second month of such a cycle. Its Spring is not yet over, our race is young on such a calendar, America's centennial measures there less than 36 fleet hours. Imperial Rome supported the burden of her empire less, thereon, than two such weeks!

And when the present cycle has run out, and new ones also have passed on, they, these cycles of precession, will perhaps in turn be counted but as days about Alcyone herself, and so on till eternity is spanned by cycles sweeping past the human ken.*

But let us examine more closely the grand chronological scheme thus suggested by the Pyramid. If the circle of 360° or $1296000''$ be divided by the number of years in the precessional cycle (25827) the annual amount by which the Vernal Equinox retrogrades will be found to equal $50.''180044139853641$. From this the following table may be constructed.

ALCYONE'S PRECESSIONAL MOVEMENT EASTWARD.

$1 \left\{ \begin{array}{l} \text{Normal human life} = 1 \text{ day} \\ \text{of the cycle } i. e., \frac{1}{365.25} = \\ 70 \frac{9}{12} \text{ y.} = \text{nearly } 1 = \end{array} \right\}$		59.17063538157741829
1 Year	=	$50.''180044139853641 + \text{etc.}$
1 Month	=	$4.''181670345 + \text{etc.}$
1 Day	=	$0.''13739675 + \text{etc.}$
1 Hour	=	$.0057248 + \text{etc.}$
1 Minute	=	$.0000954 + \text{etc.}$
1 Second	=	$.0000159 + \text{etc.}$

Thus at each successive midnight of the Autumnal Equinox at Gizeh, a new meridian $50.''18 + \text{etc.}$, westward of the last one comes into the vertical plane of its great northern pointer, the axis of the Pyramid's descending passage.

At the same moment the Initial Meridian of the cycle, that of Alcyone, will have gained the same distance of arc farther eastward from the prime or pyramid meridian. In other words, at midnight of Autumnal Equinox this year (Sept. 21-22, 1883, year this article first appeared) the Pleiades, so far as mere precession is concerned, will be

* See *Facts, Fancies, Legends, and Lore of Nativity*, Totten, 1885. John Wiley & Sons, Pubs., 53 E. 10th Street, New York.

$56^{\circ}49'13'' +$ or $56^{\circ}29'39''$ eastward of the prime or pyramid meridian.*

On the 21st and 22d of Sept. 1492, Columbus lay becalmed in the neighborhood of latitude 20° west of Greenwich. He then entered upon the real crises of his life and undertaking. Without knowing it, his little fleet was crossing that meridian belt of the world which may be termed its "wet meridian" as it traverses more water than any other. This meridian is to the ordinary student of the map even more readily distinguished than the "dry" one, upon which the Pyramid itself so grandly rests. It is universally taken as the great circle (meridian) which separates the eastern from the western hemisphere!

* The Right Ascension of Alcyone for Sept. 21, 1883, is given in the Ephemeris as $55^{\circ}.2433$, and its declination north as $23^{\circ}.6945$. It must be noticed however that this is of course the *absolute* position of the star and is due to the combined action, since 2170 B. C., of not only precession, but of an unknown number of other motions not in the problem before us, such as nutation, parallax, apparent motion, proper motion, etc., etc. Every one of these elements has a cycle of its own and varies the position of a star continually from what it *would* have been if we regard any one of them alone. In our demonstration we are *simply* considering the place of the star as due to *precession alone*.

This if the cycle be 25827 years, must be, in 1883, equal to $56^{\circ}.49'13'' +$ etc., as to Right Ascension; hence if, as a fact, the Ephemeris puts the actual R. A. down as $55^{\circ}.1433 +$ etc., the difference between them or $1^{\circ}.3480 +$ etc., is the displacement in R. A., due to the combined action of *all the other* cycles not in consideration. The arrangement of an astronomical monument such as the Great Pyramid, must of course follow the same principles that govern the construction of a *watch*. The sun sometimes ahead and sometimes behind; but four times a year the watch and sun coincide. So in the Pyramid and the precessional motion of the Pleiades, it is the *mean* motion that the former keeps, they will agree at proper intervals and at the close of a cycle have neutralized all variations. Hence the displacement, be it plus or minus, of Alcyone from its true precessional position at any particular date is no argument against the Pyramid as the hand upon its everlasting dial. Such a variation is rather an astonishing demonstration, of not only the Pyramid's accuracy, but of its having been built intentionally at the very dawn of the cycle at the place of location (Gizeh) with a view to the periodic elimination of all error. One-half of 25827 years = 12913.5; $12913.5 - 2170 = 10743.5$, hence, 12913.5 years after 2170 B. C., or in 10743.5 A. D., the displacement in R. A. will disappear, while in A. D. 4136.75, *i. e.*, in Sept. of 4137 A. D., the displacement, now continually increasing, will have reached its maximum.

Columbus discovered the New World *when he crossed that belt*. It was by this time that "the minds of his crews had become so diseased. They were full of vague terrors and superstitious fancies; they construed everything into a cause of alarm and harassed their commander by incessant murmurs."* He was importuned to return by the whole fleet, then almost on the point of mutiny. With faith, however, unexampled in history, Columbus, quieting and over-ruling the fears of his crews, steered bravely westward across this invisible Rubicon, and thus assured his destiny. But what was taking place upon the grand dial of the Pleiadic Cycle on this eventful New-Year's eve? At that minute the meridian of Alcyone was $52^{\circ}.0442560i$, west of the prime or Pyramid meridian, or in other words $82^{\circ}.21$ + east of Greenwich. It held the zenith over the center of Western Deccan in India, and on a meridian passing just to the east of Ceylon, reputed in fable to have been the seat of Eden.

Now it is manifest that wherever we establish our Prime Meridian, there first upon the earth the days and years and seasons are begun. Hence it must be noticed that though the moment of absolute New-Year's dawn is marked at the Pyramid by the return of the equinoc-tial coincidence at midnight, with its meridian, it is still for all the rest of the world, (reckoning from the Pyramid westward and around to it again) the old year. Twenty-four hours, one revolution of the earth, are still necessary to bring the new year locally to every place upon it. Hence, when 1492 A. D., dawned at the Pyramid as a new year, all the rest of the earth was in expectancy, and had the mechanism of the universe stopped at that instant the year would have dawned at no place else, we should have stopped the clock, so to speak, with the hands at midnight twelve.

At that minute, upon the opposite side of the earth, 180° away, westward from the Pyramid, or in longitude 149° W. G., it was "high twelve" or noon. This meridian passes through central Alaska. As the days and nights are equal at the Equinoxes, a simple calculation will show that it was the hour of sunset along the eastern coast of our continent;† while in Central America it was three o'clock

* Life of Columbus, Irving and others.

† Six hours = 90° ; $149^{\circ} - 90 = 59^{\circ}$. The meridian 59° W. G., occupies a corresponding position on the eastern coast of America (or the western hemisphere) that 149° W. G. does upon its western one, and time is just 6 hours apart upon them.

P. M., the "ninth hour" or hour of prayer,* according to ancient Hebrew reckoning.

This was an eventful moment all over our continent, it was an epoch in history. According to the primeval system of universal chronology recorded at Gizeh, it was the last day of the old equinoctial year in America, and its noon had passed away when the new one dawned upon the Pyramid. From east to west a declining sun was viewed by its inhabitants, and with its flight and setting, old things went down forever, and the times of the Aztecs were fulfilled!

Twelve hours later the Pleiades, known of old to the ancestors of Montezuma, as the harbingers of new things, dropped their rays directly from the zenith upon the very roof of his palace!

The circumstances here related are particularly interesting from the fact that the Aztecs actually reckoned their years from the Pleiadic coincidence with the midnight meridian. In wandering away from the primeval centre of civilization, before the days of Peleg and Almodad, they seem to have gradually lost the essential motif of their traditions, and taking the shadow for the substance, to have held to the Pleiades as though they were a perpetual year-governing constellation, instead of to the Vernal Equinox in Meridian at midnight—the true index. Hence at the time we speak of, absolute New Year's dawn (Sept. 21, 1492), they (the Aztecs) were actually out of reckoning as many days as the Pleiades were at that instant east of the prime or Pyramid meridian ($51.^{\circ} +$, or $51. +$ days, nearly, since $360^{\circ} = 365$ and one-quarter days).†

Had their reckoning been correct instead of dependent upon the

* "In the New Testament the division of the day was such that the third hour was answerable to our nine o'clock A. M., at the time of the equinoxes, the sixth at all times to noon, and the 9th to three o'clock P. M., at the Autumnal Equinox." *Cruden's Concordance*.

† I cannot refrain from again calling attention to another beauty of this Pleiadic cycle connected with this same angle $51 +$ (degrees or days), namely, the fact that the angle of the Pleiades east of the prime meridian at the dawn of a new year, also marks unerringly the numbers of human lives that have been lived, at the taking of that angle. For instance, at the date under consideration 1492 A. D., we have the angle of Pleiades east = 51.04425601 degrees, or Pleiadic midnight $51.759 (+)$ days behind Sept. 21st, (I. E., Nov. 11-12,) and we likewise have $70\ 9-12$ years (= a normal life) $\times 51.759 =$ the actual age of the cycle, etc.

Pleiades, then in about 8 hours and 35 minutes after the absolute dawn at Gizeh, they would have celebrated it locally at Mexico. As it was, however, their New Year's eve did not come until the local Pleiadic midnight, which in A. D. 1492, for Mexico, was about Nov. 11th. Nevertheless nature keeps *her* times and seasons in spite of the errors of the Aztecs, and the true equinoctial year dawned, like a thief in the night, upon this doomed people, even while they slept.

So too the other circumstance to which we have alluded—that at exactly twelve hours after absolute New Year's dawn at Gizeh (1492 A. D.), the Pleiades held the zenith over the palace of Montezuma, and shone with all their rays directly down upon the falsely-pyramidal temples, and on the sharp and cruel capstone-altars of the ancient Mexicans, bloody with dreadful sacrifices, is as near as may be, also a literal fact.

Demonstration.

The Empire of ancient Mexico would have probably been included in the narrow confines of a circle struck from a point ($98\frac{1}{2}^{\circ}$ W. Lon. and $19\frac{1}{2}^{\circ}$ N. Lat.) about midway between * the cities of La Puebla and Mexico and with a radius of not greater than $2\frac{1}{2}^{\circ}$. It covered some 16,000 to 20,000 sq. leagues only, and included most of what is now the States of Vera Cruz, La Puebla and Mexico. At 3:25 A. M., local time for the centre of this circle, Sept. 21, 1492 A. D., the earth had rotated 180° from its position at absolute† equinox so as to bring right ascension 51° (that of Alcyone) practically over this centre of Aztec civilization. 51° R. A., taken at Pyramid Autumnal Equinox 1492 A. D. equals in Lon. 82° east of Greenwich: *i. e.*, = 31° Lon. of Pyramid, + the easting 51° of Pleiades: and $180^{\circ} - 82^{\circ} = 98^{\circ}$ West Lon. or about that of the locality under consideration. The declination of Alcyone was about $3^{\circ}.66$ north‡ in 2170 B. C., and its rate

* Cholula the Holy City of the Aztecs, lies in Lon. $98^{\circ} 15'$ and between Mexico and La Puebla. Mexico is in Lon. $99^{\circ} 5'$, Tlascala in Lon. $98^{\circ} 2'$, and all of them including Mexico (Lon. $98^{\circ} 51'$) lie between 19° and $19^{\circ} 39'$ N. Lat. One sq. degree of territory having Mexico on its western, Cholula on its southern and Tlascala on its eastern sides would have enclosed the most populous area of the empire.

† *i. e.*., as marked at Gizeh.

‡ Proctor, *The Pyramid Problems*.

of declination about 1° north in 225 years, hence in the 3,662 years extending from 2170 B. C., to 1492 A. D., it gained in northern declination some $16^{\circ}.2$, or in other words was in the zenith of $3^{\circ} + 16^{\circ}.2 = 16^{\circ}.68$ North Lat. in 1492 A. D., practically that of the centre of the Aztec Empire.*

If now, however, we remember that it is the entire group or constellation that is to be located, it will be manifest that the Pleiades as such did at this moment (namely, 2 hours and 35 minutes before daybreak, or 12 hours from absolute equinox at Gizeh) actually dominate the very zenith of the Empire of the Aztecs, and that, moreover, from the comparative smallness of the territory, they must have practically covered its entire zenith.†

Let these be called *coincidences* by those who dare to do so; for our own part we frankly say that we do not. It is far more satisfactory to the workings of a heart which feels convinced "all things are numbered" to believe that "when the Lord divided to the nations their inheritance and set their bounds according to the number (13) of the sons of Jacob," he also so arranged the naming of those orbs he placed on high that for ever, at their "times and seasons," they should fulfil the prophecies, agree among themselves, and flash back the light of truth at every earth inhabited by "*mind*." They do not rule the destinies of men, *the ONE who made them* RULES, and simply employs them as they culminate above to mark the times

* Were the obliquity of the ecliptic a constant then in one quarter of a cycle (6456½ years) the Pleiades would have gained in declination $23\ 1\text{-}3\text{rd}^{\circ}$, which would have put Alcyone at $16^{\circ}.89$ N. Lat. in 1492 A. D. (since $6456\frac{1}{2} + 23\ 1.3\text{d}^{\circ} = 276.7$ years and $3662 + 276.7 = 13^{\circ}.23 + 3^{\circ}.66 = 16^{\circ}.89$). This is the latitude of Central America, and gives us the extreme southern limit at which they could have been in 1492 A. D. The Ephemeris for 1881 gave Alcyone a disinclination of $23^{\circ}.75$ north; hence $23^{\circ}.75 - 2^{\circ}.66 = 20^{\circ}.07$, = gain in 4051 years, or at the rate of 1° in 202 years. This would have placed the star at $21^{\circ}.73$ N. Lat. in 1492 A. D., (since $3662 + 202\ \text{y.} = 18^{\circ}.12$, and $18^{\circ}.12 + 3^{\circ}.66 = 21^{\circ}.78$). The mean of these two limits $21^{\circ}.78$ and $16^{\circ}.89$ is $19^{\circ}.33$ or almost exactly the latitude of the principal Aztec cities, Mexico and Tezcuco (only 18 miles apart), than by its mean position on the dial, the latitude $19^{\circ}.33$ thus obtained cannot be far from that sought, and from all the considerations now noticed we may be certain that this moment under consideration, Alcyone held the zenith of 99° —West Lon., and 19° + North Lat.

† The centre of the constellation would have crossed the whole zenith region from east to west, in just about 20 minutes.

upon the Annus Magnus determined in His councils upon all things before yet any of them were.

It is in such a sense that we accept the Pyramid as an Astrological Monument : it *is* one, and to the same degree that chronological prophecy itself is legitimate astrology.

While utterly repudiating therefore the theory as advanced by Mr. Proctor, which is at variance with facts, traditions and reason, and as we have shown contrary to the logic of his own arguments, we do nevertheless, see in this wonderful structure, and its accurate readings of the stars, enough to suggest the truth of the tradition that it embodies the astrological wisdom of Enoch foretold before its erection, and is still fulfilling "times and seasons."

This idea, however, that Cheops erected it in any sense at all for the debased purpose either of a mere temporal horoscope, or for that of "personal astrology," or ever profaned it with the connivance or actual assistance of his grandly non-Sabaistic architects, cannot be sustained.

We exercise a certain amount of "legitimate astrology" when in an Ephemeris we predict, several years in advance, conjunctions and eclipses with their attendant results upon the earth, and our modern Signal and Weather Bureaus simply deal in its principles at shorter range.

So, too, although the universe is a dial of infinite complexity, nevertheless it must have been thoroughly understood beforehand by Him who set all of its wondrous mechanism in such perfect order. Nor can the thought be resisted, that He must have so arranged it, that, as the history of man unrolls beneath the eye of wisdom, it will be found to be in perfect keeping with the whole at every fold, and nothing unforeseen or accidental mar it. As a metaphysical fact this must be so.

Let there be given, to a mind capable of grasping them, all of the conditions which enter into "the equation of the universe," and it must be clear that by substituting any particular date therein, and duly integrating, there shall result such and such a state of affairs on this or that planet or subordinate system, and that if the equation is correct, and all the conditions have been duly co-ordinated, there can result no other; and moreover, that, when this date arrives if it be future, the universe will and must answer to it everywhere and without an accident.

It is not to be conceived, however, that the Great Architect will yield to finite minds the secret of *such* a combination, nor that the finite mind could circumscribe it *and continue to exist* as finite. Nevertheless, it is within the domain of possibility that the Almighty may have at times seen fit to manifest *His* powers to us. Hence, if we find upon the earth a monument so consummately arranged as to fulfil the functions of an unerring Hand upon the Dial of the Universe, and accompanied by the most intimate references to all the metrological necessities of the highest state of man's development, justice, equality and universal intercourse and peace, and if we cannot account for it on human grounds, except by an appeal to accident, which all nature everywhere abhors, then we can legitimately and must honestly reason back to design as such, and if not to human, then divine.

But let us return to a consideration of this particular midnight, that of the Autumnal Equinox of A. D. 1492, and see what was transpiring in the heavens above the Pyramid itself. Was it *also* an eventful night upon the "Dry" or *Prime* meridian?

It is manifest that proportionally as the Pleiades gained their yearly "easting," their place of 2170 B. C., was successively occupied by *new* stars, which culminated at the Autumnal Equinox upon the Vernal meridian over the Pyramid. Hence in the year A. D. 1492, an entirely different meridian belt of stars culminated at Gizeh with the Autumnal Equinox;—a set of stars that in 2170 B. C., had been far to the west of Greenwich.

Now it is a remarkable fact that those stars which in 2170 B. C. culminated over the "wet meridian" of the earth, at the same moment that the Pleiades dominated the "dry" one, came upon the Vernal Pyramid or Prime meridian in A. D. 1492 at the Pyramid midnight of the Autumnal Equinox! Thus in their progress east, towards the "Place of Light," the very stars that at the dawn in the Pleiadic Cycle marked the eastern confines of the western hemisphere, held the zenith and meridian of the Pyramid itself, while the argonautic expedition of Columbus, sailing faithfully and fearlessly into unknown seas, crossed the terrestrial dividing belt which they had dominated at the dawn of the cycle!

Demonstration.

$1492 \text{ A. D.} + 2170 \text{ B. C.} = 3662 \text{ years}$; hence Alcyone's "easting" from the Pyramid meridian at Ver. Eq. A. D. 1492 was equal to $(50''.180044, \text{ etc.}, \times 3662) \div 3600 = 51^{\circ}.04425601$.

Now the Pyramid being $31^{\circ}.16 \pm$ east of Greenwich we have the 1492 A. D., longitude of the meridian of Alcyone, east of that of Greenwich $= 82^{\circ}.21 \pm 1$ etc. Hence the stars that in 1492 A. D., culminated at Autumnal Equinox upon the Vernal meridian over the Great Pyramid were in 2170 B. C., $51^{\circ}.+$, west thereof, and at a longitude equal to the difference between Alcyone's "easting" in A. D., 1492, and that of the Greenwich longitude of the Pyramid. Thus $51^{\circ}.04 \text{ etc.} - 31^{\circ}.16 + = 19^{\circ}.87759 \text{ etc.}$, longitude west of Greenwich!

In general terms, or whole numbers, the case is $51^{\circ} - 31^{\circ} = 20^{\circ} =$ the "wet" meridian! *

But taking the exact result $19^{\circ}.87759 \text{ etc.}$, it is seen to differ from 20° by only 0.12241 or $7\frac{1}{2}'$ of arc, which in time is only 30 seconds (!) for a period of 3,662 years! This difference, slight as it is, and absolutely inappreciable, may be made to vanish entirely if we suppose that the *average* "proper motion" of *all the stars concerned* (*i. e.*, of those on the whole circle of the meridian) was just $7.5 (\pm)$ minutes of arc each, between the dates 2170 B. C., and 1492 A. D. This certainly seems to be fairly indicated upon the dial, and if a fact, gives us for the annual "proper motion" of the entire universe about some central sun (Alcyone), an arc of $7'''.22$ (thirds). From this latter element it would result that the entire average revolution of our celestial system (*i. e.*, of all the stars in sight) occupies the stupendous period of 10,770,083 years! †

* It is manifest that this is the fairer basis upon which to calculate, for regarding the Pleiades as a group or constellation, ample margin is given to cover the longitude required.

† *Query.* The longitude of the Great Pyramid is variously given and is (by $1' \pm$) a doubtful element in the above estimate.

In Black's General Atlas of the world (1857) it is put down as $31^{\circ}.10' \text{ E.}$, and is so assumed in the calculations. Prof. Smyth makes it some 31° and $9'$ to $12' \pm$. Should it turn out to be an average of these two amounts, or in fact rather nearer to $30^{\circ} 11' 1\frac{1}{4}'' = 30^{\circ}.183939$, we should obtain the following; "Easting" of Alcyone (1492 A. D.) $= 50^{\circ}.04425601$.

The Pyramid longitude (1883 and 1492 A. D.) $= 31^{\circ}.183939$.

Hence stars over the Pyramid in A. D. 1492, were in 2170 B. C., $\left\{ = 19^{\circ}.860317 \right.$ on meridian of Lon. west of Greenwich.

Hence proper motion for 3662 years. *i. e.*, from 20° W. G. was $8'.38098$ ($20^{\circ} - 19^{\circ}.860317 = 0.139683 = 8'.38098$) or $8'''.24$ per year. Therefore dividing 77760000 , the number of thirds (''') in 360° by $8'''.24$.

We obtain for the "universal year," a period of $9,433,105,134 + \text{etc., years}$, which is equal to $365242 \times 25827 \frac{1}{2}$ years!

But before finally closing this interesting subject, let us hastily scan the heavens themselves, and consider the general arrangement of the principal constellations as they appeared from the Great Pyramid at the moment of *absolute* new year's dawn, midnight twelve (Sept. 21-22) A. D. 1492. *

The three cardinal signs of the Zodiac, in sight, were Gemini rising in the east, Sagittarius setting in the west and Pisces on the meridian in the south.

The Sun was in Virgo, then the northern sign, but both of these were, of course, below the horizon and upon the opposite side of the earth. Pisces, the sign of "*increase*," thus ruled in the equinoctial point. Far to the south, and likewise upon the meridian some 30° above the horizon, was the significant constellation Phœnix—"Thou shalt renew thy strength like the eagle," its principal star holding the colure itself as though prophetic of new birth and strength.

The appearance of *this* constellation—the Phœnix—upon the meridian of Gizeh at this particular time, is just as remarkable as any of the other *astrological* (or astronomically prophetic) agreements we have noticed.

The story of the Phœnix was native to Egypt, and while *fabulous* if taken literally, is of deep significance when understood aright. From Anthon's Classical Dictionary we quote the following:—

"PHŒNIX, a fabulous bird, of which Herodotus gives the following account, 'The phœnix is another sacred bird which I have never seen except in effigy. He rarely appears in Egypt; once only in five hundred years, immediately after the death of his father, the Heliopolitans affirm. If the painters describe him aright, his feathers represent a mixture of crimson and gold; and he resembles the eagle in outline and size. They affirm that he contrives the following thing, which to me is not credible. They say that he comes

* The positions relatively held by the stars as viewed from Gizeh at midnight 1492 A. D., were manifestly those held by them for the whole earth. As its various local meridians successively turned into coincidence with the vernal meridian of the celestial sphere, at local midnight, the heavens would have been dominated by the same stars, *i. e.*, by those opposite the sun in the latitude of Gizeh. About the earth the aspect of the sky would have been exactly as that seen from the Pyramid. In other latitudes, though the same stars were on the meridian, different ones would occupy the zenith, cardinal points, etc., of the observer.

from Arabia, and bringing the body of his father inclosed in myrrh, buries him in the temple of the Sun; and that he brings him in the following manner. First he moulds as great a quantity of myrrh into the shape of an egg as he is well able to carry, and, after having tried the weight, he hollows out the egg, and puts his parent into it, and stops up with some more myrrh the hole through which he had introduced the body, so the weight is the same as before; he then carries the whole mass to the temple of the Sun in Egypt. Such is the account they give of the phœnix (Herod. ii. 73). The whole of this fable is evidently astronomical, and the following very ingenious explanation has been given by Marcoz. He assumes as the basis of his remarks the fragment of Hesiod preserved by Plutarch in his treatise *De Oraculorum Defectu*.

“‘The noisy crow lives nine generations of men who are in the bloom of years; the stag attains the age of four crows; the raven, in its turn, equals three stags in the length of days; while the phœnix lives nine ravens. We nymphs, fair-of-tresses, daughters of Jove the ægis-bearer, attain to ten ages of the phœnix’ (compare Anson, Idyll—Plin. vii. 48—Gaisford, poet Min. Græc, vol. i. p. 189). The whole computation here turns upon the meaning of the term generation. Marcoz takes the moon for his guide, and as this luminary ceases, like man, to exist, only, like him, again to arise, the period of its revolution becomes the standard required. Twenty-seven days and a third, then converted into twenty-seven years and a third, give the measure of a generation among men. Reducing this, in order to make the analogy with the moon as complete as possible, he gives twenty-six years and two thirds as the result. The computation is then as follows;—

Nine generations of men or the life of crow, make $234 + 6$	}	240 years.
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Four lives of a crow or that of a stag, make	}	960 years.
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Three lives of a stag or that of a raven, make	}	2880 years.
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Nine lives of the raven or that of the phœnix, make	}	25920 years.
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The period of 25920 years is precisely the duration of the Great Year (Magnus Annus) of the fixed stars, having for its element exactly 50'' the annual precession of the equinoxes. From this computation

also we will be enabled to perceive how 50'' converted into years and multiplied by $1 + 2 + 3 + 4$, that is, by 10, gave the Egyptians 500 years as the duration of the phoenix. These numbers $1 + 2 + 3 + 4$, indicate that the 50 seconds, converted into years, traverse successively the four quarters of the ecliptic, in order to form the great year, the astronomical duration of the life of the phoenix" (Marcoz, *Astronomie Solaire d'Hippargue*, p. xvi. seq.).

There can be little doubt but that the above is an approximate explanation of the fable. The Pleiadic Cycle however can have but one dawn, and that dawn for Egypt and the then known world was in 2170 A. D. How comes it then that this constellation, Phœnix, so intimately connected with the Pleiadic Cycle, has, as it were, a displaced position upon the dial? Among the several answers to this question, the school of Mr. Proctor would reply as follows: "The Phœnix is a new, or modern constellation; whatever then the fable may have had to do with the Annus Magnus, the constellation has absolutely nothing to do with its markings on the sky; moreover, as nothing is more absurd than the notion that this motion of the pole of the earth was known to the builders of the Pyramid" (Proctor in solution of the Pyramid problem) "neither the position nor the fable have anything to do with the Annus Magnus."

Such an answer however flies directly in the face of every fact and every probability. No matter how distasteful the conclusion to which the world is arriving, may be to Mr. Proctor's school the proper answer to the above question is "that man proposes but God disposes."

The scientifically astrological answer is in other words as follows: when the Hyksos left Egypt, they left this fable of the Phœnix behind them. It was as much of a riddle as the Pyramid itself. When later on, in the progress of the centuries, a new constellation was chosen, named the Phœnix, and put upon the celestial sphere, it was irresistibly *disposed* that it should happen as it did, and that it should be located where it was. For *us*, at any rate, the result is exactly the same, and stands as follows:—to America the year 1492 A. D., was literally the dawn of a precessional cycle of 25,827 years, but as it had to begin from the actual midnight meridian, the original constellation (Pleiades) could not serve; those then upon it had to do so, and notable among them stands to-day—the Phœnix—as as-

tonishingly connected with the *Novus ordo seclorum*, for the *new* world as the former is and was for that of all the earth. It is impossible for the general intellect of mankind not to recognize the hand of an all-ruling Providence in facts like these, the few who attribute them to chance alone, cannot be normally constituted, or else blaspheme their own intellects.

Leaving now the constellation of the Phœnix, and following the meridian along until we come to the very zenith of the Pyramid itself, we find Andromeda, the chained, but now in the day of her culmination to be liberated, since Perseus her champion follows closely and in a few moments is to take her place upon the zenith.

Continuing along the meridian still further north we find in latitude 60° midway between the zenith and the pole, the notable constellation Cassiope, the seated goddess of liberty.* Equally distant from the pole itself, and below it, occupying the whole northern horizon, is the grandest of all the northern constellations, that of Ursa Major.

These meridian constellations are the ones that 3,662 years before had, at the new year's dawn of the cycle itself, significantly held the very western bounds of the known world. Now come to culmination at the absolute dawn of a new year, they, and the ideas they embody, received together with its first and virgin blush the full benefit of its vernal influence, an influence so sweet that it will last the cycle through. Atlantis, Phœnix-like, shall now arise, renewing all her strength. Humanity, chained to the dreadful altars of the tyrant and of Aztec barbarity, shall now be liberated, and Liberty herself sit down to rest protected by the powers of the north.

But there were other stars upon the right and left that filled up the details of the story.

* It is noticable how suggestively the whole legend of Cepheus, Cassiope, Andromeda, Perseus, and Pegasus, with all its deep significance, is brought into prominence by the appearance of the sky at this eventful date. The constellation of Cassiope, "*consists of 13 stars*, and was compared by the Arabians to *an open hand*," (Classical Dictionary, Anthon,) which has always been an emblem of power and omnipotence. The open hand was borne as the ensign of the Roman "*manipulus*," was stamped upon ancient coins. (Mexican as well as Oriental) and is yet employed upon the lance of the Persian standard.

Aquila, and Pegasus, and the Luther-toned Cygnus, Hercules, Eridannus, and athwart them all from east to west the very fulness of the Milky Way.

The Pleiades (51°) due east of the Pyramid and nearly upon its prime vertical, still show the newness of the cycle, and are about to lend their own sweet influence towards closing up forever the wounds in the aching breast of sacrificed humanity.

The Pleiades are the decans of Taurus, the sign of the tribe of Joseph, with the horns of which as with the tens of thousands, and the thousands, of Ephraim and Manasseh, it is promised that the heathen shall be pushed from off the earth.*

Far beyond the Pleiades, and somewhat to their south, the tips of the lofty masts of the great constellation of Argo Navis are just appearing above the eastern horizon. It is the sign of Columbus and the expedition actually then at sea and sailing towards a better Colchis and in search of the Fleece of

" A Golden Age,
Soon to return once more to earth
Let down from lofty heaven."

In this respect the Columbian Exposition now (1892) being inaugurated at a range of 400 years later, is of deep significance.

In the northwest nearly 180° away from Argo Navis and as it were going before it towards the western hemisphere, shines the constellation Lyra, with its thirteen strings, the key to each a silver star.

* In Mazzaroth, Miss Rolleston remarks that ancient authorities unanimously assert that Rueben bore Aquarius, Joseph Taurus, and Benjamin Gemini, etc. She translates Gen. xlix. 22: "Joseph, branch of fruitfulness by the fountain. The daughters walk before the bull. Daughters, as in the English margin and the Vulgate, appears to be the Pleiades which precede the constellation Taurus, the bull, which is known to have been the ensign of Joseph," (see article entitled "Mazzaroth" by A. R., in the HEIR OF THE WORLD, June 1881,) "and afterwards of Ephraim." If this be true that Joseph and Ephraim bore the Bull (Deut. xxxiii. 17.) then how clear it is that the Pleiades themselves, who like daughters (or colonies) walk before it, are the constellation of Manasseh, the elder brother of Ephraim, and pre-eminently the daughter, colony or Great People (Gen. xlviii.) of the latter times. And how suggestive to America, (the only branch growing independently of the parent olive,) is this cycle of the Pleiades, which marks for Manasseh the era of his "*novus ordo seclorum*," as borne upon his Seal.

It is claimed by Schuyler Hamilton in his "History of the Flag," that Lyra is the group that suggested to our ancestors the "new constellation," which they put upon the azure of our nation's ensign. A few years after the adoption of this flag, John Adams, then secretary of state, and who had been concerned not only in the *origins* of our flag, but even more deeply in those of our still more significant arms and crest and seal, caused a device to be put upon our national passports which they still retain. This device consists of an eagle bearing upon its breast and suspended from its beak the constellation Lyra with its thirteen stars. To still further intensify this significant national number, the eagle was surrounded by another circle of thirteen stars, and a motto added, "*Nunc sidera ducit.*" "Now Lyra (America) leads the constellations."

This constellation was then, in longitude, about as far west (51°) of Greenwich as the Pleiades were east (51°) of the Vernal Equinox. It was therefore $82^{\circ} \pm$ west of the prime meridian, or $26^{\circ} \pm$ from the meridian of the District of Columbia, and being in the very same latitude as the national capital, shone kindly from its zenith upon the future seat of Liberty, just as the twilight disappeared. It was the twilight constellation around the globe, and as such held the zenith of its belt of intellect, and gave the promise of the era then so grandly assured in the very motto "*nunc sidera ducit.*" This motto too, is deeply prophetic, for in just one half a cycle from that very New Year's dawn the whole constellation of Lyra will be circumpolar, and in time Vega, its brightest star, will occupy almost the very pole position of the heavens!

What thoughts arise at facts like these? Could it have been the influence of this group as though anticipating its dominion of the pole, that so disturbed the compass of Columbus? Who shall predict the future of America when all men's eyes shall be fixed upon *its* constellation in full possession of all the treasures of the north?

Such were in part the pointed readings of the stars upon *that New Year's morn which gave a new earth to the world!* And thus arranged they bore the tidings round the globe and sang the hymn of freedom unto all mankind.

Since 1492, new stars each year have come upon the prime meridian, but the general reading of the heavens has changed but little. The same grand constellations hold the meridian, so slowly does the

cycle move, and underneath them year by year are David's words of prophecy fulfilled.

" There is neither speech nor language
Yet their voices are heard among them ;
Their sound has gone out through all the earth
And their words to the end of the world."

If, as we believe, OUR RACE is very young, but just entering, or about to enter, upon its 7th, Sabbath, thousand of years, the time will arrive in the vast future when cycles such as this of Alcyone will be absolutely necessary for the purposes of history and chronology. A million years from now nature, still fresh from "the sweet influence of the Pleiades," will support a population—OUR DESCENDANTS! that must reckon up the eras of *their* past in some such way. But even 1,000,000 years, stupendous though the eon seems, will be but little more than 39 such cycles as the one recorded by Alcyone's precession, and this whole cycle of precession be but a day of the grander Alcyonic year of Cycles!

From the foregoing consideration it is therefore manifest that whatever may have been the intention of its actual builders, the Great Pyramid, as a FACT which may not be disputed, occupies the position, and fulfils all the requirements and conditions to act forever as the gigantic Hand upon the dial of the Annus Magnus; that the building moreover in the details of its exterior proportions harmoniously shows, in earth commensuric "units" and "standards" of linear measure, the absolute lengths in terms of their own "units," of all the periods and cycles whose passage it records. Thus the sides of its square base are each 365.242 cubits long and the sum of its two diagonals are 25,827 inches, by which we have the year, and Great Year built in stone as a memorial!*

Let it now be noticed that from the very nature of law and order in the universe, there are and can be no periods nor cycles, governing the affairs of men upon this earth, which are not functions of the

* For further data upon this interesting topic see "An Important Question," in which volume, some twelve years ago the present writer discussed the deep significance of Pyramid matters from the standpoint of "OUR RACE." (The book can be procured of the Our Race Publishing Co., price \$2.50, or of John Wiley & Sons, 53 East 10th Street, N. Y. City. See also advertisement of same in Series No. I.)

polar axis about or relative to which without exception they every one take place. This is in the mathematical nature of the things concerned. Now without any solution, and simply upon general *à priori* principles, we might have anticipated that when these relations were discovered they would have been found, like every other law of nature whose sweep unutterable is measured only by eternity, to be both simple and direct. We have not known these laws 300 years, and certainly the farther back we go, be it as far as to the very days of the Chaldean Golden Age of astronomy, they were not known nor used.

No one is disposed to claim more for the astronomy of the ancients than Professor Proctor, and yet referring to this very cycle, the Annus Magnus, Mr. Proctor remarks that "there is no more extravagant supposition * * * than that the notion of this motion of the pole of the earth was known to the builders of the Pyramid, or that knowing it they adopted so preposterous (?) a method of indicating the date of their labors." Mr. Proctor here is more at unity with the holders of "the religious theory" than he intended his remarks to indicate.

He implies that Pyramidalists believe that Cheops and his Egyptians knew, and used and built the Pyramid to record these things. This is not exactly what these theorists believe, nor what the historical facts and traditions seem to warrant. The advanced and best teachers of this theory have always held that the monument was built in a day of absolute blindness as to the *reason* of the things, or to the *knowledge* of the facts. They believe that the *Egyptians* never did in the least comprehend this monument, and that when finished, it was finished, *sealed*, and its teachings *concealed*, and was guarded so by destiny to this our latter day. They hold that by whomsoever erected or "proposed" it is a monument, the plan of which was either shown by a "model" or "in a vision" to the "Shepherd Kings," as were those of the Ark; * the Tabernacles and the Temples in still later days.

* The belief of Pyramid students upon this particular differs through many shades, yet all agree that the wisdom monumentalized came from above and beyond mere human discovery. It is generally agreed that the leading "Hyksos" probably were informed upon the reasons as well as the facts that they were charged to monumentalize. A few only of the chosen masters of their craft were by them let into the "Arcanae." The rest of mankind were simply informed and taught the "just weights and measures" without any other explanation being vouchsafed upon the subject. This undoubtedly took place round about the days of Peleg, or soon after those of Almodad the measurer, and when the whole earth was of one speech and one language.

Or else they hold that the erection of this building was *disposed* by an all-ruling Power who eliminates every accident not only from his universe but from every act of man himself! We admit with Mr. Proctor that such things could not have been known at that early day, as facts evolved from man's own unaided progress.

The very basis of evolution and advancement upon which, with Mr. Proctor the modern scientists plant their citadel, forbids them logically to accept this monument at its true worth and import. They have no premises upon which to account for it when we point out to them, in the Pyramid, consummately monumentalized and harmoniously disposed, these hard and astronomic universal facts, and ask them how they got there? They, having no term in their vocabulary that compasses what all the rest of men call "miracles," and mentally repudiating the very idea of a providence concerned with man's affairs, call it "a pure coincidence," "a gigantic accident," "a remarkable exemplification of the strange freaks of chance."

There are no such accidents, Mr. Proctor, unless the universe itself, whose laws are there recorded, is also one. The intellectual man who cannot doubt his own senses, and who will not stultify his reason when he finds design in such a masterpiece, is forced to look upon this monument, as by *Some One*, an intended one, and if not to be satisfactorily accounted for by an appeal to man's own contemporaneous progress then in it he must find that "sign and wonder" promised from of old to be found in latter times upon the centre and yet paradoxically at the same time upon the border of the land of Ham. And if haply this monument stands over against modern science, confounding its best wisdom by answering every riddle it is just beginning to propound, then more than ever may we say, it is "a sign and wonder to the Lord of Hosts," and so much the more is modern science amazed and driven to astonishment thereby.

APPENDIX H.

WHERE ARE THE WATERS NOW?*

A NATURAL question, and by no means an invidious one when queried in the proper spirit. The reply divides itself into several categorical answers, and involves if treated at proper length, a separate study of no little magnitude. In the first place it may be reiterated, that, before the fall of the Astronomical Ring there was only a minimum of water below the "firmament." This was all collected into *one* place, and called the "Seas" or waters. Ancient cabalistic emblems of Atlantis, etc., *i. e.*, collateral secular traditions, unite in representing the "former" geography of the Earth, as somewhat in *cross shape*, when spread out, as it were, upon equal surface projection, thus giving the four rivers which flowed east, south, west and north from, or towards, the central sea. Genesis (II. 8, 14) rather favors this idea as possible. At any rate, the waters of the Flood came from *above* the Firmament (Gen. I.), and before their "fall" the terrestrial economy was such that it seems to have had just enough water, and no more (Gen. II. 1-7-14). We now have upon the visible earth's surface, at least $\frac{4}{5}$ water and $\frac{1}{5}$ land. Formerly, perhaps the very reverse, (or even in greater ratio), was the state of affairs. The planet was then belted with a ring, or "rings," as Saturn is to-day, which, besides its solitary satellite, accompanied her through her orbit. Now such a ring would be more or less equatorial, be under some (24 hours) rotatory motion, and support itself, under natural gravimetric and stellar forces, until its mathematical period was terminated. Then it would fall, still rotating, and strike the upper equatorial regions of the atmosphere, and earth, as a vast, and vertical, astronomic cyclone, or "deluge," of water, "drift," and whatsoever else had been its constitution. Now the effect of such a cataclysm could not but be world-wide, and of long duration. For even after all the water had fallen into the atmosphere, and thence had worked its torrents through it, and into the upper latitudes, it could not but take months before it had arrived at its "turn," and from that time onward, an equal time, to recede towards the equator, settle into the lower latitudes, and fill up the

* See Plate IV.

places marked out by its ultimate level. It must be borne in mind that we have here a "tidal wave" of *terrestrial* proportions, striking it *everywhere at once*, engulfing it in a sea whose own motion comes with it, and could only have been brought to relative rest by long friction with the earth's surface.

No matter what may have been the heights and depths exposed to antediluvian gaze, within the five mile limits now measured up and downwards from the receded flood, they must all of them have been drenched with an irresistible overflow, and, after the 40 days, have long continued to be washed completely under by the huge volume of unloosed water, which had to wear itself out round and round again, before it could, or would, obey the law which poured it ultimately into "its place." Plate IV. shows us that it would have required at least 327,941,177 cubic miles of water, above the present sea level, to have flooded the earth 15 cubits over "the mountains of Ararat." The present oceans are calculated to hold at least 300 to 310 millions of cubic miles. This latter volume is alone sufficient to have accomplished, under the conditions imposed, all of the results recorded by Moses. But there is absolutely nothing to show that the 308 millions of cubic miles of water now in our oceans were the only ones involved in the cataclysm. Man can hardly sound the "open deep," but he finds it averages, in depth, the altitude of Ararat! Abysms have been found into which the Himalayas might be stood inverted, but who among men has sought out the storehouses of the waters which lie *underneath* the ocean's bed? or estimated that which the Almighty measured, at the first, within the hollow of his hand? Beneath the average $3\frac{1}{4}$ miles, are $1\frac{1}{4}$ miles of which we know absolutely nothing, save that here and there we have sent plummets down into the fissures, through which long ago the sea had gone before us—and gone *where, beyond?*

Who shall assume that the great Architect of the earth, had provided no receptacles for the inevitable flood which from of old he had prepared against the day of Noah? What mortal soul has explored the ancient archways, architraves, and transepts, which uphold the continents? Or who but He who visited the souls in prison can make answer on such themes as this? The question and the answer are legitimately beyond the present scope of mortal ken.

In the meantime it appears rudely certain that from 350 to 650 millions of cubic miles of water, "drift," et cetera, were involved in the astronomical flood of which Moses bears such astonishingly accurate record. The flood having accomplished its task, nature has solved the problem of its disposition. The atmosphere normally holds some 5,721 cubic miles of it. Were the firmament at its "saturation" point, it might sustain some 28,600 cubic miles, or more. It is now always saturated somewhere, *i. e.*, locally, and is continually emptying itself into the rivers, lakes and seas, and giving drink unto the thirsty places in *natural* "rain" under the post-diluvian conditions. The Ocean holds some 300 million cubic miles of that which fell, and the chasms underneath, the subterranean seas, have *their measure full*, whatever that may be! Teeming life, in all its forms, and vegetation, is in bulk, embodied in water, and Nature in her tireless laboratory has already worked up and stored away vast volumes of the surplus in a different form.

Thus, for *enough* water to have done the work of the Noachic flood, under the sidereal conditions by which it was impelled, and the terrestrial ones which it encountered, we can fully account, in plain sight; and for all that *may* have fallen to lift even the present sea level up to Ararat's summit, we may also reasonably offer scientific receptacles. Personally, while literally accepting the Mosaic flood, as prevailing above Ararat, I see no reason for requiring under the circumstances, much more *free* water than is now more or less in sight, added to what is undoubtedly collected in the subterranean regions, particularly of the equatorial excess, as well as generally about the earth.

APPENDIX I.

THE STORY FILLED IN.*

IT is unfortunate that the spirit of disbelief upon the "Flood tradition," as the Biblical record of the Deluge is generally denominated, has taken such deep root in Christendom, that almost every study of the subject seems to have been entered in upon rather with

* See the Calendar and follow upon it. Page 125.

a view of *discrediting* it, than with a desire to point out what may be fairly taken for corroborative evidence as to its verity.

The result is that when one approaches the topic in the opposite spirit he finds himself confronted with a multiplicity of intricate problems, each one of which he is forced to solve *ab initio*, and the task is almost hopeless from its magnitude. However, that accurate corroboration of every detail in the Mosaic account lies within our reach, is not *consistently* to be doubted by one who bases his *Hope* upon "Christ and the Apostles," who, if he believes sincerely, bespeak for "Moses and the Prophets" an equal degree of complete confidence, and make direct allusions to the deluge as a matter of Historical fact.

Now the object of this treatise is not only to set forth the fundamental accuracy of Moses as a Chronologist of superlative precision in his Flood Record, and therefore to put the subject upon a new basis of historic credibility, but also to assist believers in recovering the best detailed account of this stupendous cataclysm itself. The whole subject of the deluge becomes so broadened by a full realization of the astounding astronomical exactness with which Moses has clothed the account that the filling in of its minor details, by virtue of special exegesis in the promises, cannot but be a matter of deep interest, as well as one of certain promise.

Hence we feel fully justified in submitting the following *additional data* as matters worthy of due consideration by all such as may have been already impressed with the results we have thus far been enabled to present. Aside from all aspirations to "authority" upon this topic, save such as the animus shown forth in these pages, and the nature of our results may justly entitle us, we submit the details of this present note as our theoretical conclusions in the several secondary questions raised, and it is to be fairly noted that our conclusions are entirely subordinate to the generic matter at issue.

Whether we are right or wrong therefore, in these few new dates, will not affect the accuracy of the primary dates of the Mosaic account in the least, and in order to eliminate them from any weight in that respect we shall *bracket* them, whenever entered in the calendar itself. In this way they may be readily distinguished from all that which necessarily result from the details spread out in Genesis.

Let us therefore analyze the period of "Prevalence of the waters"

critically, and see if we may not obtain the probable in approximate days upon which its *undated* incidents took place.

The Mosaic account clearly indicates at least four separate sub-periods, perhaps five, into which the 150 days of the "Prevalence of the waters" may be divided, to wit:

- I. Gen. vii., 17. From the commencement of "the Flood" until the Ark was borne up and lifted up above the earth.
- II. Gen. vii., 18. From that time until it "*went*" upon the surface of the waters.
- III. Gen. vii., 19. From thence until "all the high hills under the whole heaven were covered."
- IV. Gen. vii., 20. From that time until the inferior mountain tops were reached.
- V. Gen. vii., 20. And thence onward (perhaps a part of IV.) until the waters prevailed 15 cubits upward, *i. e.*, above the superior Armenian mountain heights; and thus "the mountains were covered."

Now a careful study of the whole period of "prevalence" in the light of these sub-divisions, and a due comparison with those in the correlative 150-day period of "abatement" which Moses does date, leads us to believe that they are exact counterparts.

Moses assigns no dates to the termini of the subordinate periods of Prevalence, or *Rise* of the waters, but he states that it lasted in all 150 days, according to the record.

Upon the other hand, he assigns no duration to the whole period of "abatement," *i. e.*, directly, but gives us the termini of its several subordinate periods, so that its 150 days' duration naturally follows.

Studying each period, therefore, in the light of the other, we are forced to divide them alike and estimate them from the central day of the 300, which comprehends them both!

This solution of the matter is far from being arbitrary, for when accomplished, it is seen to be not only logical, and harmonious to the whole account, but also to be a natural and necessary conclusion in the premises. It moreover finds substantial support when measured off against the profile of Armenian topography.

The twin mountains of Ararat, the one outreaching the other, rising in solitary grandeur far above the foothills which crown the plateau whereon they stand, itself far above the level of the sea in

that latitude, afford us a lasting metron, whereat to guage this ancient overflow as unerringly as the Nilometer does the annual rise and fall of the Sacred River of Egypt.

It will be noted that the present treatise regards the Flood as a natural consequence of the rupture and fall of a former terrestrial Ring, situated 1641 miles above its atmosphere. This fall lasted "40 days and 40 nights," in so far as its astronomical phenomena were concerned, and its immediate effect was to flood the earth, and surcharge the atmosphere with thitherto unwonted moisture.

But with the cessation of the astronomical part of the phenomenon the rise of the waters did not by any means cease. The account of Moses clearly indicates a continual rise of the waters during the "prevalence," and corresponding subsidence during the "abatement." Moreover the *new* conditions of the atmosphere came into play at once when the 40 days were over, and what we call "rain," i. e., *natural* deposits of water from the "firmament" itself went on at least to the 148th day of the Flood period, and probably did not wholly cease until the 150th.

Again, the ark was undoubtedly built upon "commanding" ground, all other conveniences duly considered, and would not have been moved for quite a number of days, since in addition it seems to have "drawn" about half its vertical dimension.

Finally, to make a long matter short, and avoiding all further argument in order that our conclusions may be left to rest upon their own merits, the following consecutive summary will explain our position, which couched in a style similar to Genesis is as follows:

First, in general: And the flood was falling for forty days upon the earth, and the waters continued to prevail thereafter for one hundred and ten days, after which they abated for one hundred and ten days when all the high hills under the whole heaven were bare. And from that time the waters fell for yet forty days when they were all assuaged.

Second, in particular: Now from the first day the waters increased, and after twenty-five days they bare up the ark and it was lifted up above the high ground of the earth whereon Noah had built it. And still the waters prevailed and were increased greatly upon the earth; so that after nine days the ark went freely over the face of the waters which covered the face of the whole earth. And the waters

prevailed exceedingly upon the earth ; and at the end of six days all the high hills that were under the whole heaven were covered. Now after this day, even at the end of the fortieth day, did the rain upon the firmament cease. But the waters continued to prevail, and to rise exceedingly upon the earth, and to rain within the firmament for yet other forty days, so that the mountains began to be covered. And after the end of these forty days, that is upon the 9th day of the Fifth month of Noah's 600th year of the Genealogy, which was the eighty and first day since the Flood was upon the earth, did the top of Little Ararat disappear, and so the mountains began to be covered.

And now for yet other days, even for seven and sixty days, did the waters continue to rise until they were upwards of fifteen cubits above the highest top of the mountain of Ararat. So the mountains were covered.

And it came to pass upon this day, which was the seventh month, the seventeenth day of the month, that the ark ceased from going upon the face of the waters, and rested upon the mountains of Ararat.

Now the waters prevailed, and maintained themselves, at upwards of 15 cubits, for three days, and after the end of the three days, which was the end of the hundred and fifty days, God remembered Noah, and every living thing, and all the cattle that was with him in the ark, and the waters prevailed no more ; for God caused the *natural* rains from *Heaven* (Gen. 1. 8, viii. 2) to cease.

Now the fountains also of the "deep," and the windows of the firmament, had been stopped when the *Flood* ceased, for the Rain from the waters *above* the Firmament had then been exhausted, and from the time that the *natural* rains ceased, the waters were at rest ; 15 cubits upwards did they rest, and Noah moored the ark.

And it came to pass at the end of three days that the ark was moored, and God caused a wind to pass over the earth, and the waters assuaged. But the ark was at rest.

And after sixty and seven days the lesser peak of Ararat was uncovered, for the waters had decreased continually until the tenth month : In the tenth month, on the first day of the month were the tops of the mountains seen.

* So seventy days of the Abatement ended, and there were yet eighty days.

And the waters continued to decrease, and they fell exceedingly for forty days so that the tops of all the high hills that were under the whole firmament were uncovered, and there remained forty days to the end of the Abatement.

Now it was the first day of the week, so Noah opened the window of the Ark which he had made, and he sent forth a Raven, which went to and fro until the waters were *dried up* from off the earth. Also he sent forth a Dove from him, to see *if* the waters were *abated* from off *the face of the ground*?

Now the Raven found natural rest upon the mountains and high hills, which were uncovered, but the Dove returned unto him into the ark, for the waters were still upon the face of the whole earth and she found no natural rest for the sole of her foot. Then Noah put forth his hand and took her, and pulled her in unto him into the ark.

And the waters assuaged greatly, and after six days the slopes of all the high hills and uplands were uncovered. But it was the Sabbath day, so Noah rested.

And in the morning of the next day behold Noah had stayed for full seven days since the first return of the Dove: So again he sent forth the Dove out of the ark, this second time, and the Dove descended towards the face of the earth, and rested upon the olive slopes which were uncovered.

And as the day ended the dove ascended and returned, and came in unto Noah *in the evening*, for the sun was down and another day begun when the Dove came in unto Noah, and lo, in her mouth was an Olive leaf plucked off: So Noah knew that the waters were very much abated from off the earth.

Now this was upon the second day of the week. So Noah waited yet other seven days until the second day of the next week, and sent forth the dove; which returned not again to him any more.

And during these nine days did the waters assuage continually, so that all the days, from the day when the tops of the high hills began to appear, even the day upon which Noah opened the window of the Ark which he had made, unto the day when the dove returned no more into the ark, were fifteen days.

And Noah knew that the waters had receded very much from off the earth, even as they were at the first, when they had lifted the ark

from where Noah builded it. So the waters continued to assuage for yet twenty and five days, and after the end of the five and twenty days they were abated.

Thus all the days of the Abatement were an hundred and fifty days. And after the end of the hundred and fifty days the standing pools began to dry, and on the last day of Noah's 600th year of the Genealogies did they dry. Thus upon the first day of the first month of Noah's 601st year of the Genealogies, were the waters dried up.

Now the earth was drying from the time the top of the highest mountain appeared; and behold upon the last day of the Solar year even upon the Sabbath day, the last day of the 1656th year of the greater light, which rules the day, was the earth dried. And the Sun went down, and *the nominal* year of the greater light ended.

Still Noah tarried in the ark, for *God had shut him in!* and the eternal dial of the heavens kept the time. And it came to pass that when the sun was down 4 hours, 12 minutes and 25 and a fraction seconds, behold the door had been shut for just 365 days, as they reckon who reckon without error!

Nor yet was the last part of the year of the greater light ended, for there remained to it 5 hours, 48 minutes and $50.885 \pm$ seconds, while the stars kept watch.

And lo, at 4 o'clock A. M., even at the eleventh hour of that day, it being "in the evening," the door WAS OPENED, and from beside it Noah and his family came forth, in obedience to God's command. For they stood there ready for the exit.

And when they were all out the greater year was ended, for it was the first *instant*, of the first *day*, of the first *week*, of the first *month*, of the first *year* of the orb which rules the days "*after the Flood!*"

Now the moon which "rules the night," "the lesser light," had also kept her lesser record of the incidents which crowd this Solar year of doom. Nevertheless space fails wherein to note more than its chiefest dates.

Thus while Noah was yet in his "600th Birthday," according to the Genealogies, the Moon was Full the ninth time in the 1707th "Lesser" year from creation, *i. e.*, according to her own reckoning.

And while the Moon was yet New the eleventh time in this lesser year, was Noah "600 years old" according to the greater years. Now when the Moon was New the 12th time the ark "*went upon the*

waters." And when the Moon was New again this lesser year was ended, and New or absolute mean lunar year, the 1708th, began, and it was the 10th Sabbath of this year of Sabbaths.

And it came to pass that when the Moon was New the fourth time in this lesser year the wind went forth, and the waters began to assuage. While it was yet full the fifth time it was again the Sabbath day, which Sabbath was the central day in the greater year of the greater light, the whole of which was also deluge-year.

And the day when the Moon was New the ninth time was the last day of "Abatement."

Now when this ninth moon of the 1708th lesser year was in her First Quarter the 1656th year of the Genealogies ended, and when it was Full, Noah was in his 601st birthday by these Genealogies.

Now the tenth new Moon was on the eight times eighth Sabbath of the "greater" year, and the three times thirteenth Sabbath of the "lesser" year, for both these years were *Sabbatic* ones in deeply special sense and very nests of the mystic and the cabalistic numbers of the Scriptures!

And when the moon was new again, that is in her eleventh renewal, were the preparations for the exit begun, even in the *first* day of the *final* week of the "greater" year and in her seventh day was Noah upon the earth, and all the periods of the greater year were absolutely new.

Let such as will say these things merely "happened so," for so they did; yet not without the knowledge of Almighty God, who made the two great lights, and having set them in the firmament of the heaven, to give light upon the earth, and to rule over the day and over the night, and to divide the light from the darkness, saw that his work was good, and foreseeing all their times and seasons, ere yet any of them were, blessed them, and bade them keep them as ordained!

None are so *credulous* as those who, impotent to account for such unlooked-for beauty, harmony and scientific accuracy where least of all they dreamed it could exist, still stultify their disbelief by accepting every chance against its true purport, although all men at work would fail to calculate the odds which they defy.

And none, thank Him who wound these cycles up, are so *incredulous* as those who, seeing God revealed anew in "the foolishness of

Genesis," endeavor to be humble in their faith, and so are confirmed daily in their disbelief of all the idols of this so-called "liberal age!"

APPENDIX J.

FOR valuable corroborative testimony as to the Flood, as a matter of most ancient history, see George Smith's *Assyrian Discoveries* Chapter XI., where 58 pages are devoted to the Story of the Flood, as given in the Chaldean tablets, the Assyrian inscriptions, and the Greek records. Also see George Rawlinsons' *Five Great Monarchies*. Among the classic writers vide *Ovid* *Metam* Lib I. *Lucian* *De Dea Syria*, Tome II., p. 882. *Josephus*, *Jewish Antiquities*, p. 10. *Eusebius* *Prepar. Evang.*, Lib. IX., Cap. 12, etc.

APPENDIX K.

A STATEMENT.

THE author of this treatise distinctly disavows having any *theory* to advance. His object is to vindicate the truth of a most stupendous Fact of History recorded by Moses under the constraining influence of inspiration. One may not *theorize* on such a topic.

The objections to the Deluge, as a *possibility*, rest upon a sound scientific basis, or they do not. Per contrary, the arguments in favor of such a cataclysm having occurred, are either sound or they are not.

The subject cannot be dismissed with a contemptuous refusal to investigate. Modern Science has at last arrived at such a degree of *recovery* and *convalescence* as to the earlier eras of Science—those of the Atlantean or Golden Age, since when it fell demented—that it may now attempt to examine such matters as the universal Deluge with calm judgment. But a desire for truth, rather than for the preservation of self-worship, must actuate this study.

We have taken the Mosaic record as one of *fact*, and from this standpoint, and the one of its own internal consistency, we ask of

Modern Science a calm and logical examination of our premises and conclusions.

The Chronological accuracy of Moses indicates a surpassing knowledge of Astronomy. The Calendar and Log-book of the Deluge point out a consummate knowledge of Physical Geography, Infinitesimal Mathematics, and Arithmetic, find no flaw in his calculations. Geology and World-Structure support his story. The nebula hypothesis does not disagree therewith, and the harmonious history of all nations have it in their earliest chapters.

We moderns, then, may certainly examine the truth of the record in the light of such facts as we have obtained as to the several branches of Science, in a different way than have any former intermediate generations, of which we have any knowledge, and it is our duty so to do.

And, moreover, unless we do so dispassionately, and without any prejudice against its truth, or captious tendency to magnify such small objections as our ignorance may suggest, we are unworthy of the name of liberal investigators.

Upon the other hand, if we discharge this duty negligently, or refuse to undertake it, we assume a serious responsibility; for if it *be* the truth we may rest assured that it will so vindicate itself, and that the generations are speedily to come who will rise up against us, and condemn us—aye, we will condemn ourselves, for we too shall rise up before that Bar which sentenced those who before the Flood were sometime disobedient—"while the Ark was a-preparing!"—and who, forsooth, will preach to us when after all these opportunities to know the truth and live thereby our souls are cast into the prisons emptied even by those whom the Flood carried away?

APPENDIX L.

THE SIZE OF NOAH'S ARK.

IN order properly to understand the Mosaic account of what Noah had to do, and to judge of his means to accomplish it, it is fundamentally necessary that we should arrive at the accurate size and capacity of the Ark.

Probably no subordinate topic of all those involved in the Deluge discussion, is so generally misunderstood, as that which surrounds this one; nor is any of them so often referred to by scoffers as an *argumentum ad absurdum*, they being generally ignorant of what its true dimensions actually were; and, because of such misapprehension, maintaining that Noah had not the room at his disposal to accomplish the task imposed upon him by the Bible—*i. e.* it is almost universally claimed that he could not possibly have found space enough in such a vessel for the animals and their food in view of the length of their incarceration, etc., etc., etc.

Now to place this matter right we can merely give a very brief summary of the truth, for space is certainly wanting *here* to do it full justice, and to go over all of the arguments and authorities at our disposal.

1. In the first place the dimensions as given in the Bible are as follows: "Make thee an Ark of gopher wood; rooms, (*i. e.* "Nests," severed and separated one from the other), shalt thou make in the Ark, and shalt pitch it within, and without with pitch. And this is the fashion which thou shalt make it of.

"The length of the Ark shall be 300 cubits, the breadth of it 50 cubits and the height of it 30 cubits. A window (*i. e.* a skylight!) shalt thou make to the Ark; *and in a cubit* shalt thou finish it (the Ark) above; and the door of the Ark shalt thou set in the side thereof; with lower, second, and third stories shalt thou make it."

The foregoing is the entire Bible account; it deals in general details only, and within these limits modern architectural ideas must be circumscribed. The dimensions are rectangular and by general consensus internal, but the chief matter to be settled is the *length*, in modern inches, of the "*cubit*." This cubit was the "*sacred*" cubit, and is known to Bible Students as the "cubit of the armpit," instead of the ordinary one "of the elbow." It is also known as the "great" cubit, "the cubit of the sanctuary," etc. Ezekiel in xliii. 13, thus defined it "the cubit is a cubit and a hand's breadth." St. John in Rev. xxi., 17. uses this same "sacred" cubit, defining it as "cubits after the measure of a man, that is of the angel."

Now "ancient cubits are still in existence in the British and other museums, and on authority of the "Report of the Royal Observatory, Edinburgh" for 1870, Major Tracy, R. A. states, that, "we

learn that the mere list of successive determinations of the cubit of the ruling people throughout Asia in the time of Herodotus, runs thus:—

20.866	British inch
20.670	“
20.112	“
20.850	“
21.000	“
20.670	“

Giving 20.69 (nearly) as the approximate mean for the Persian and Asiatic cubit of about B. C. 500 in modern Anglo-Saxon inches. Egyptian cubit 20.70 inches (about). “We may therefore say that a cubit of 20.7 inches (about) was the standard of measure of the Egyptians, and also Assyrian, Chaldean and Babylonian Empires.

But Noah, by divine inspiration, was taught the use of a *special* cubit measure, as was also Moses, David, Solomon, Ezekiel, St. John, etc. Moses and David were particularly directed to work by the pattern *shown* them, and all the collateral evidence as to Tabernacle, Temple, and other sacred work, goes to establish the fact that this divinely ordained sacred measure, was *greater* by a hand's breadth than the secular one, also used by the Hebrews in their own ordinary affairs. Now as the “great cubit” of Ezekiel was the common cubit $20\frac{7}{10}$ ” + “a hands-breadth” it clearly came nigh to 25 inches in length.

This subject was made a special study by Sir Isaac Newton, whose “*Dissertation upon the Sacred Cubit of the Jews, and the Cubits of Other Nations*” may be regarded as having demonstrated that this *sacred* cubit was close upon 25 inches in length. He says “that the sacred cubit was very large appears from the Jewish *Calamas* or Reed, which contained but 6 of these cubits: (150” ±), and from the antiquity of this cubit, since Noah measured the ark with it,” etc.

A few years ago (1864) Sir John Herschel lecturing at Leeds on “The Yard, the Metre, and the Pendulum,” in pointing out the inherent faults of these as standards for general use among civilized nations, called attention to the earth's axis of rotation as the only one fixed, immutable line in the whole earth, and one of equal importance to all nations.

Its length is known, and when the semi axis (*i. e.* Polar Radius) is divided into the same number of parts as the French divided the quadrant to get the metre, to wit 10^7 , we obtain what Sir John calls the "geometrical cubit whose precise length is 25.025 British inches! Herschel's proposition was to increase the length of our present standard inch by 1-1,000th and thus obtain a Geometrical cubit of exactly 25 such earth commensuric inches for international use.

Now the researches of John Taylor, Professor Greaves, C. Piazzzi Smyth, and other Pyramidalists, have demonstrated that the great Pyramid of Gizeh was erected as a standard of Metrology by the generations immediately after the Flood (2170 B. C.) to perpetuate the dimensions of this sacred cubit, and other, indeed *all* other, metric standards. The monument is a consummate epitome of the units and standards of Terrestrial affairs, and modern science is dwarfed beside its stature.

Based, therefore, upon all these facts and authorities, and confident that, *if* given by "inspiration," "the cubit of Noah" was not an approximation, but "the absolute" measure of the "geometric cubit," we shall accept it at his, and Herschel's and Newton's judgments, and all others competent shall take it as 25.025 inches, at our present statute value, *in so far as they themselves err not*, and with it proceed to measure the volume of the Ark. And for further elucidation of our position we respectfully invite attention to our own work upon metrology* wherein the matter is fully summed up at large, and in detail, since space forbids us to review that matter here at any greater length.

2. We have stated above that the Mosaic dimensions were internal, and base our belief in this fact upon the general agreement of authorities thereon, as well as upon corresponding measurements given in Bible terms as to the Temple, Tabernacle, Second Temple, Holy City, etc. However, as to mere figuring and calculation the matter is immaterial, for we shall employ these dimensions, and those of other ships in the same manner in order to be impartial, and those who wish to regard them as "external," "over all," or "mean value" may suit themselves. That the Ark, as to general form

* "An Important Question in Metrology and a Challenge to the Metric System," 1883, John Wiley & Sons, No. 53 E. 10th Street, N. Y. City.

was strictly a rectangular volume, roofed, and bottomed for buoyant purposes, is the general consensus of humanity and all representations familiar to the Race from the earliest times down to the present, approximate to^o the shape yet sold in toy shops. It is noticeable that the "pitch" of the roof is generally *very low*. This bears out that clause in the instructions to Noah "and *in* (*i. e.* *within*) a cubit shalt thou finish it (the *Ark*, not the window) *above*" (*i. e.* its roof).

Now I have already shown in "Metrology" that the ruling division of the sacred cubit was into two parts, 5'' and 20'', and that from this division it may be used as a wand wherewith to solve *all Geometry*, etc.; hence, as 20'' is "*within*" both the Sacred and the Secular cubit, I shall follow Major Tracy, R. A., C. N. Hickson, Vicar of St. Bartholomew's and others, and place the "pitch" of the roof at 20'' +, on 25 Geometric cubits, that is on half the breadth.

Therefore, omitting all decimal terminations to the value of the Sacred cubit (25.025) and calling it roundly 25 inches, thus measuring the Ark by Herschel's "Geometric cubit," which is of eternal and unchangeable value so long as Time endures, as God has sworn, we may erect the longitudinal and cross-sectional outlines of the craft as shown in Plates V. and VI., and it *begins* to look gigantic! But appearances are deceptive, and do not do it justice. Let us therefore calculate its contents.

3. Let L=the Length 300^c, B=the Breadth 50^c, and H=the Height 30^c, each at 25 geometric inches (1''.001). Then V=Volume of the Body of the Ark=L×B×H; and V¹=Volume under the Pitch=½ (L×B) 20''; *i. e.*:-

C. G. I.

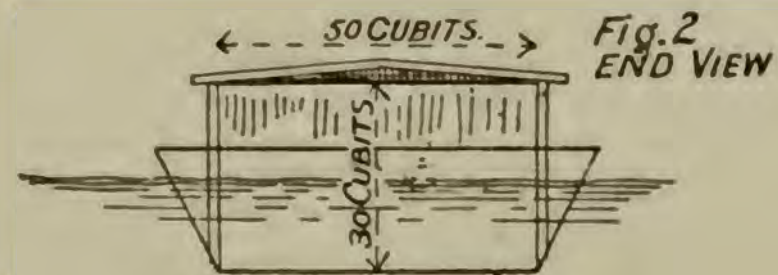
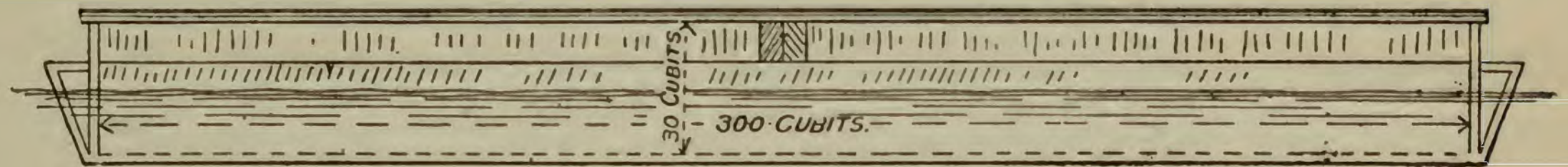
$$V=L \times B \times H=300 \times 50 \times 30 \times 25^3=7,031,250,000. \quad "$$

$$V^1=\frac{1}{2} (L \times B) \times 25^2 \times 20= \quad 93,750,000. \quad "$$

$$V+V^1=\text{The Ark's Volume}=7,125,000,000. \quad "$$

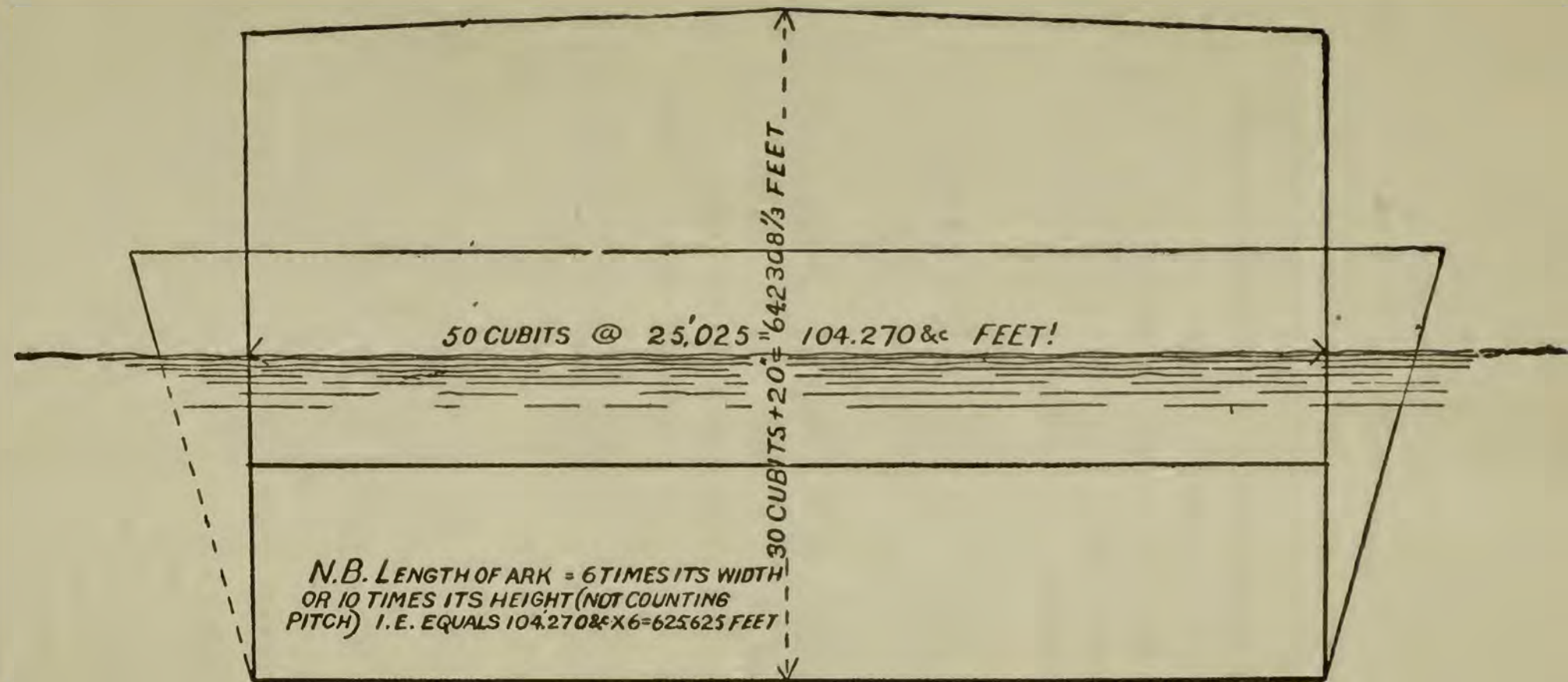
Now the ancient Hebrew "Laver" was of the same capacity as the "Ark of the Covenant," and was the Standard of measure. It contained 71,250 Geometric cubic inches, (as shown by Taylor, Smith, myself and others), which was also the identical volume of the famous "coffer" in the King's Chamber in that ancient Metric monument in the midst of Egypt. This is also the origin of Anglo-

Plate V. Fig.1. Long. Elevation.



Relative Proportions of Noah's Ark.

Plate VI. Fig. 1. Side Elevation.



Skeleton Cross Section of the Ark.

Saxon capacity measure, is the old English Chaldron of Edgar the Peaceable, and is the true bulk of 32 bushels or 4 quarters. It is one Ton of Capacity. Hence it is apparent that the Ark's contents, (*i. e.* Noah's Ark) in *such* tons was exactly 100,000. The equivalent of these tons in Anglo-Saxon Metrology is 2,500 pints or pounds, more or less, *i. e.* in excess even of our gross ton (2,240 lbs.) of commerce! Ask any shipwright what he would think of a vessel whose tonnage was 100,000 of even our small (2,000 lbs.) tons, and watch his face as he realizes that you *mean* the question!

4. But let us examine the matter from another standpoint. If we take the cubit at its true Anglo-Saxon value, 25 025", the dimensions of the Ark become in *our* values as follows:—Length=625.625 feet; Height 62.5625 feet; and Breadth=104.27083 feet. Its volume, *i. e.* $V \times V^1 = 4,714,349 \cdot \frac{1}{23123}$ cubic feet.

Now an examination of this enormous volume, in comparison with that of any other ship ever conceived of by mortal man, (for instance the greatest one of modern times, the *Great Eastern* and which has now been broken up because of her unweildiness), will demonstrate how completely mistaken those are who ridicule Noah's Ark, as having been disproportionately too small for its task!

Indeed, such is human inconsistency, I doubt not that when the full significance of our figures—the correct ones—is comprehended, the very reverse will be the hue and cry, and that in lieu of finding its capacity too small, it will be scouted as exaggerated beyond all reason!

Hence in order to reduce still more the chances of our being misunderstood as to these dimensions and the freight capacity they indicate, we shall examine the subject from yet another standpoint:

5. Therefore, and finally, to place this matter upon such a basis as to awaken ideas of familiar everyday experience, I shall ask permission to quote from two former works, certain data by means of which the astonishing volume of Noah's cargo may be fairly comprehended. These two works were upon topics not only diverse from each other, but were published years ago, and of course independently of our present subject. In one of them, "*An Important Question*," the theme was "Metrology" in general, and the wonderful Anglo-Saxon System in particular. Under the head of Capacity

Measure, we therein showed that *our inherited* measures progressed uniformly upwards from the very "minim" of science, to the Ton of 71,250 "Geometrical," (Herschel) cubic inches, and from thence onward to the most extravagant commercial dream "a Harbor Load," and that such a "load" was literally the one freighted by the Ark! It was also pointed out that the trend of universal civilization was steadily towards this very system, which came across the Flood from the "Lost Atlantis" of the Antediluvian world, and was built imperishably by the descendants of Noah (during his own life!) into that unequalled structure, the Great Pyramid of Gizeh. The Table which we then formulated, as the inevitable solution of the gigantic problem which international commerce was quietly and practically solving, without any regard to the French Metric System (*sic!*) is of direct value in our present studies, so we reproduce its two upper portions which run as follows. (N. B. The fundamental "unit" in this table, is the Anglo-Saxon *ounce*; it is on a *decimal* system and has its natural equivalents through the *unit* ounce and ultimate *coffer* all along the several tables now employed by Anglo-Saxon Trades).

PART II.

(FOR ORDINARY USE OF EVERY DAY LIFE.)

Standard Table of Pyramid *Capacity* Measure from the Ounce up to the Coffer, (N. B. It becomes *weight* measure by being balanced against the corresponding volumes of water at Standard Circumstances, *i. e.* at *mean* Temperature, Pressure, Hygroscopic State, etc.

10 Meas. Ounces	$\left\{ \begin{array}{l} 4 \text{ Meas. Oz.} = 1 \text{ Gill} \\ 2\frac{1}{2} \text{ gills} = 1 \text{ stand. lb. meas.} \end{array} \right.$	$\left\{ \begin{array}{l} = 1 \text{ Stand. Lb. Meas.} \end{array} \right.$
10 Stand. lbs.	$\left\{ \begin{array}{l} 4 \text{ stand. lbs.} = 1 \text{ quart} \\ 2\frac{1}{2} \text{ quarts} = 1 \text{ pottle} \end{array} \right.$	$\left\{ \begin{array}{l} = 1 \text{ Pottle.} \end{array} \right.$
10 Pottles	$\left\{ \begin{array}{l} 4 \text{ pottle} = 1 \text{ sack} \\ 2\frac{1}{2} \text{ sacks} = 1 \text{ bushel} \end{array} \right.$	$\left\{ \begin{array}{l} = 1 \text{ Bushel.} \end{array} \right.$
10 Bushels	$\left\{ \begin{array}{l} 4 \text{ bushels} = 1 \text{ coomb} \\ 2\frac{1}{2} \text{ coombs} = 1 \text{ quarter} \end{array} \right.$	$\left\{ \begin{array}{l} = 1 \text{ Quarter.} \end{array} \right.$
4 Quarters.....	..... = 1 Coffer.	

This coffer is 71,250 cubic inches, at the earth's mean value, *i. e.* on Herschel's Geometric inches of which there are 250,000,000 in the Polar Radius of the earth. The equivalent of this coffer in weight of water is 2,500 avoirdupois pounds, 3,333 $\frac{1}{3}$ Troy and apothecary pounds, 3,133 $\frac{1}{3}$ United States dry measure "pints," and 2,000 British Imperial pints, etc. etc.

In general terms we may call it an *International* "Gross Ton" and with it as a unit, proceed upwards to the latter part of the table.

PART III.

(FOR COMMERCIAL AND INTERNATIONAL USE.)

All the terms here employed are at a round average of what their meaning signifies to general commerce at the present time.

10 Coffers $\left\{ \begin{array}{l} 2\frac{1}{2} \text{ Coffers} = 1 \text{ Bin} \\ 4 \text{ Bins} = 1 \text{ Car Load} \end{array} \right\} = 1 \text{ Car Load.}$

10 Car Loads $\left\{ \begin{array}{l} 2\frac{1}{2} \text{ Car Loads} = 1 \text{ Lighter} \\ 4 \text{ Lighters} = 1 \text{ Barge} \end{array} \right\} = 1 \text{ Barge.}$

10 Barges $\left\{ \begin{array}{l} 2\frac{1}{2} \text{ Barges} = 1 \text{ Ship Load} \\ 4 \text{ Ship Loads} = 1 \text{ Elevator} \end{array} \right\} = 1 \text{ Elevator.}$

10 Elevators. $\left\{ \begin{array}{l} 2\frac{1}{2} \text{ Elevators} = 1 \text{ Wharf} \\ 4 \text{ Wharves} = 1 \text{ District} \end{array} \right\} = 1 \text{ District.}$

10 Districts. $\left\{ \begin{array}{l} 2\frac{1}{2} \text{ Districts} = 1 \text{ Section} \\ 4 \text{ Sections} = 1 \text{ Harbor} \end{array} \right\} = 1 \text{ Harbor.}$

1 Harbor = 1 Ark = 100,000 Coffers!

From the foregoing tables in which a coffer is 71,250 avoirdupois pounds, we may fairly appreciate the capacity of the Ark! Let us now pause a moment and turn to the other volume referred to. This was purely a professional one,* and devoted to *Military Statistics and Studies*. In it we had occasion to tabulate "Military Railroad Statistics" in a form which has frequently been quoted and referred to professionally. I quote thence as follows:

* "*Strategos.—The American Game of War.*" (C. A. L. Totten) D. Appleton & Co., New York, 1880.

"An American truck car weighs from 6 to 9 tons, carries of general stores, 8 to 12 tons, and contains 15 to 23 cubic yards," (*i. e.* average 10 tons at 2240 each) let us consider them here 2500 each, which is for the entire load well above the minimum."

"A freight engine will draw on a level at a slow speed about 100 to 125 loaded cars." "It will draw on a level at 15 miles an hour 1,595 tons." It will draw up a grade 250" per mile, at 8 to 12 miles an hour 118 tons "In this country 16 to 22 freight-cars go to form 'a train' and run at the rate of 15 to 20 miles per hour." "Freight-engines on the Pennsylvania Railroad will draw from 45 to 100 loaded cars on a level, according to their class; the smallest load per engine being 10 cars on the Tyrone Division, while the heaviest load on the Susquehannah Division of Northern Central Railroad is 100 cars."*

Let us now suppose that our cars are to be loaded with miscellaneous, or commercially, "general merchandise," that they are to go at best *average* speed, across *general* country; then, professionally, I should not dare to estimate at more than 25 cars per train, at 10 tons per car at 10 miles per hour. (Thus 25 cars=1 train=1 ship load *i. e.* freight capacity of 1 "merchantman.")†

Now an examination of our Table of International Metrology will

* The carrying capacity of a ten ton freight car as estimated by railroad men, (*on the dime and dollar basis!*), is as follows:—Cattle 18 to 20 head; Hogs 50 to 60 head; Sheep 80 to 100 head; Salt 70 barrels; Flour 90 barrels, or 200 sacks; Wood 6 cords; Butter 20,000 pounds; Lumber 6,000 feet; Barley 900 bushels; Wheat 340 bushels; Corn 400 bushels; Oats 680 bushels; Bran 1,000 bushels; etc., etc.; 10,000 such loads duly proportioned could have been stowed into Noah's Ark!

For every 100 miles of railroad in the United States there are about 625 freight cars, 20 engines, 6 baggage and mail cars and 13 passenger cars. Therefore, on an average, to make up 400 "trains" of 25 cars each, the engines would have to be collected from off of 2,000 miles of track, and the freight cars (10,000) from 1,600 miles. Of course around large centres like Chicago, New York, Philadelphia, etc., the supply is within far less distance.

† As there are those who will cavil at our figures step by step, I must again refer to "*Strategos*" Table V, giving certain Military Statistics of Selected (the 25 *leading*) Powers," to the American Almanac, the Tribune Almanac, etc., where it will be proved that the *average* tonnage of for instance the 17,042 sailing vessels belonging to the United States in 1879 was only 142 tons. It cannot now be more than 150 tons (if that?) I allow here 250 tons per vessel!

show that the Ark's load was 10,000 cars! This would require 400 such *trains* as we have estimated, and it would tax the best railroad interest in this country to get them loaded and into New York, in one week, from a radius of 500 miles, and all unloaded into the 400 "merchantmen" that they would severally freight, to say nothing of the skill and consummate administration which would be required to stow their contents into a *single* vessel 2 to 5 times larger than the huge *Great Eastern*! ‡

Such was the capacity, however, of Noah's Ark, a ship whose dimensions have, from general misunderstanding of their true significance, been persistently ridiculed as unequal to their task! Certainly there was room in such a craft for 100 menageries larger than Barnum, "the great American showman," ever saw in wildest reverie, and room to spare for food!

But levity aside, Noah had ample room for all his needs, and had ample time (as he was warned of God in 1536, and the deluge did not come for 120 years) to build and store this Ark with food and provisions, and with such other stores and treasures as were to be saved from the general wreck. But it is not to be supposed that the Ark was literally loaded down with such a cargo to its full volumetric capacity. Common-sense ruled in those days as well as ours, and we may be confident that the space at Noah's disposal was

‡ The dimensions "over all" of the "*Great Eastern*" were 692 feet long, 83 feet broad, and 60 feet from keel to deck, and the weight of the ship was 12,000 tons. Had these dimensions been rectangular, and internal, which they were *not*, even then her capacity would have fallen short of Noah's Ark by 1,268,189 cubic feet! The most liberal calculation cannot allow for her more than 2,350,000 cubic feet of clear loading space, which is about half the volume of the Ark. Her ordinary light draught load is placed at 12,000 tons. Let us allow her 20,000 tons of "general merchandise" and to be stowed from keel to deck, then she could have been unloaded into the Ark 5 times, since the ton burden of that vessel was 100,000 *great* tons, *i.e.*, 260 pounds greater than *our* "gross" tons!

"There is now in process of construction in Bath, Maine, what will be the largest sailing ship in the world. This vessel to be several hundred tons larger than *La France*, the present queen of the seas, will be launched early in next summer. The name will be *Roanoke*, the tonnage 4,000, carrying capacity 5,500, the cost \$175,000. The frame is wholly of oak. The length of the keel is 306 feet, the length over all about 350 feet, the breadth 49 feet and the depth 29 feet."

neither wasted nor crammed. Viewed therefore from the railroad man's standpoint the capacity of the Ark was simply enormous, Chicago, the Queen railroad city of the world, has a maximum of about 350 trains per day, most of which simply pass through loaded on their way east or west. It is the phenomenal city of the world, and the "centre" of 10,000 miles of railroad. It "clears" about 60 loaded vessels per day. Now in our day, if instead of into a single ship, Noah's cargo were to be freighted into a fleet of average sailing vessels, such as are owned by the United States (*i. e.* at 150 tons each, which is a generous estimate as above shown!) there would be required at least 667 vessels!

Again, the "Spanish Armada" consisted of but 129 "large vessels" (*Brit. Ency.*) and was opposed by England, who strained herself "by the addition of merchantmen and privateers," and so increased *her* fleet, from "30 of the Royal Navy," "to about 180 vessels" Thus in 1588 A. D., the very day of Drake himself (!), it taxed the strength of two of the world's greatest naval powers, to raise between them, 309 vessels, fitted for a special task, and Noah's Ark would have stored away what they contained and sent them back for another load apiece! In this comparison we may be generous to the very limit and allow an average tonnage of 300 to the 300 ships of the combined fleets, and still find room in the Ark for a complete transfer of space; so too, in our general comparison, if we *select* ships of "superior seagoing and freight capacity," say of 500 and 1,000 tons burden respectively, then of fleets composed of such ships there would severally be required 200 and 100. But the disadvantage of attempting to survive the deluge in a *fleet*, instead of a single vessel of extraordinary strength and construction, must be self-apparent. The fate of the "Spanish Armada" answers the suggestion sufficiently. Nevertheless, let us close this note with another quotation from the *Encyclopedia Britannica*, where under "Ship-building" it is stated that: "The *Great Eastern*, produced by the joint skill of Brunel and Scott Russell, *remains* in *advance* of present practice, although she has served as a model for the best of it. Her great size rendered it possible to give to her an amount of security against fatal injury to her hull, which cannot be obtained in smaller ships. It is a *mistake* to suppose that large ships are less secure than small ones. The large ship can receive without inconvenience, a wound which

would be fatal to a small one, and the possibilities of obtaining higher speed increase with the size. Had a higher speed been aimed at in the ‘*Great Eastern*’ it might have altered the whole current of ship building itself. The question (too) of *bulkheads* on which Brunel insisted so much in this ship is one which *underlies* all questions of construction.”

So much for the best *modern* principles of ship building, and it is interesting to note how perfectly, as to maximum size and safety, the Ark realized the whole problem; for among other results of its construction, verses 14 and 16,—“*rooms* shalt thou make in the Ark”—and “with lower, second, and third stories shalt thou make it”—show that it was in effect completely “*Bulkheaded!*”

APPENDIX M.

THE SCIENCE AND POWER OF TIME BY TRANSITS OF MERCURY.

SOON after the publication of “Joshua’s Long Day” copies of which were duly forwarded to the British Chronological Society, we received a complimentary letter from its Premier Chronologist, Mr. J. B. Dimbleby, enclosing a manuscript table based upon the Transits of Mercury and illustrating the way in which “All Past Time” may be measured thereby. We print it here as an example of the Cycles referred to, and as another sample of the magnificent contributions to Chronology made by Mr. Dimbleby and his Associates.

EXAMPLE:—As the transit No. 1 in 3rd column took place when the lunar year began with Monday, all the other transits across the table up to 1891 A.D. also occurred when the lunar year began with the same day of the week.

DAY OF WEEK.								A.D.		A.D.		A.D.		A.D.
5 Thursday..	*1	645	1289	1933	2577	3221	3865	....	4509	511	5153	1155	5797	1779
2 Monday....	93	737	1381	2025	2669	3313	3957	....	4601	603	5245	1247	5889	1891
6 Friday.....	185	829	1473	2117	2761	3405	4049	....	4693	695	5337	1339	5981	1983
3 Tuesday...	277	921	1565	2209	2853	3497	4141	51	4785	787	5429	1431	6073	2075
7 Saturday..	369	1013	1657	2301	2945	3589	4233	143	4877	879	5221	1523	6165	2167
4 Wednesday	461	1105	1749	2393	3037	3681	4325	235	4969	971	5613	1615	6257	2259
1 Sunday....	553	1197	1841	2485	3129	3773	4417	327	5061	1063	5705	1707	6349	2351

* The year 1 is A. M., not creation year, 0 A. M., but that which followed it.

The day of the week on which No. 1 occurs is

Thursday, Monday, Friday,	} The day of the week is consecutive when taken alternately.
Tuesday, Saturday, Wednesday,	
Sunday, Thursday, Monday	
Friday, Tuesday, Saturday,	
Wednesday, Sunday, Thursday.	} Precise and beautiful motion of regularity.
	} The transits take care of the days of the week for us.

The planet Mercury is seen to make a transit across the disc of the following periods of years :

4,9,4 9,4,7 9,4, 3 6,4,7 9,4,9 true years or 3,	} which is a total of 92 solar years, containing 15 transits the number in each team.
10,3 10,3,7 10,3,3 7,3,7 10,3,10 A. D. years	

For purposes of identification the transits of Mercury are consecutively numbered 1 to 15 inclusive. Hence No. 1 is the leader of each team of 15 transits and must always occur after 92 years. This is a conclusive method of measuring time, or solar years, particularly as No. 1 is always the descending node and always occurs in the first week of May. This simple standard beats eclipses for sure and practical use. When seven of these teams representing No. 1 transit as their beginning are arranged in consecutive order they respectively occur with years having one of the seven days of the week. As they do this throughout all time No. 1 transit gives us the day of the week with which the lunar year began. All argument is therefore at an end respecting the dates of the days of the week of any lunar year.

There are 645 years in each col. downward and also 644 across the table. The omission or introduction of a single day would break the table. Many advantages are obtained from the table, for example, it is conclusive that 1891 A. D. is 5889 A. M. we thus prove all the years of the world. The transits lay them down for us.

APPENDIX N.

THE EARTH'S ANNULAR SYSTEM.

THE manuscript of this Study essentially in its present form, has been in its completed shape since 1887. In 1888 it was submitted to Bishop Williams of Middletown, Conn. and his letter upon returning it is herewith printed. (Appendix R.) At the moment of penning this Appendix the "copy" is in the hands of three separate firms; one is printing the Tables, another is Stereotyping the plates, and the third has the body of the manuscript for composition and electrotyping. Now as a strange confirmation of the manner in which Divine Providence orders all things towards the accomplishment of His own ends without reference to human proposings, we are constrained to testify as follows: This very morning the well-known Revivalist and Expositor of the Advent Faith, Captain R. Kelso Carter, came

to New Haven with the express purpose of obtaining concise answers to numerous Queries upon matters set forth in the *Our Race Series*, of which he has been an earnest reader. We were together in critical communion from 11 A. M. to 5 P. M. In the course of the day the first batch of Proofs up to this point was brought to the door and I found incidental occasion to speak concerning the forthcoming work, which I conclude to be even more important than the *Joshua Calculation*. This immediately enlisted his interest, and opening the roll of Proofs I handed it to him giving him the first perusal of the matter. "Have you ever read 'Vail's Annular System of the Earth'?" said he? "Never," said I, "but have heard of it and do not know where to obtain it." "Well, I have a copy of it in my valise" he replied, "and I knew the Author well, in fact I wrote the Introduction to it." After talking over the whole subject of the Flood, particularly its Present Parallelisms in so far as things about us are promonitory of an even greater Cataclysm, I gave him at some length my own Chronological views of the matter and stated that I fully believed that the Deluge was primarily effected by the rupture of a previously existing Saturnian ring, etc. "Well," said he, "I am satisfied that my visit here is of God." Upon the matter of coincidence, which demonstrates, to those who read between the lines, that there are no accidents, we were at one, and the trend of the conversation convinced the writer that he should examine Professor Vail's work at the earliest possible moment. Captain Carter, too, was anxious for me to do so, and as there was no time to lose, in view of the fact that three parties were at forced work upon the printing of my own Study, he insisted upon leaving me his private copy. It is now in my possession, and though as yet unread, it soon will be, and I doubt not will confirm much that I have already worked out upon absolutely independent lines, and without other assistance. Of course it will now be too late to alter the plan of my own Study, or to avail myself of this predecessor's investigations; nevertheless I feel it both just to Professor Vail, and to myself, as well as to the subject we have both examined, to record these circumstances here and to recommend his work as collateral to my own; albeit, I do so with the former as yet unperused. I shall take immediate occasion to correspond with Professor Vail with a view to securing copies of his "Annular System" for such of my own

little constituency of "truth-seekers" as shall be led to send for it; and before the completion of this publication I hope to add enough from what I shall gather from its perusal to whet their appetite for the testimony of a Second witness, who though last is undoubtedly the first in the premises so far as an explicit presentation of the Saturnian Ring hypothesis is concerned.*

The chief testimony which *we* offer is Chronological. As mentioned elsewhere we were led to undertake this work with a view to verifying the previous labors of the British Chronological Society. The Spike which we have driven through the Ark is that of pure Astronomy; *i. e.* we have tested the Chronology by the Cycles and find that they agree. Here then are "two or *more*" independent witnesses for the accuracy of Moses—the infinite precision of Inspiration—and we submit that it certainly behooves our "brethren in faith" to rectify their knowledge in this day of doubt. And further, we submit that the true and "Highest Criticism" of God's Holy Word is to accept it first, and without reservation, and then to fortify our own shortcoming understandings by diligently searching for the evidence in a spirit willing to hold fast to what is good.

My own first intimation of the truth of a natural cause for the Deluge, and an explanation therefor was derived from reading John Taylor's "*Great Pyramid; why was it built? and who built it?*" † In Chapter X of that pioneer volume in an investigation (to which I myself have since contributed a mite‡) will be found, so far as I know, the earliest formulated references contained in the *Secular Library*, to the matter of a *pre-Noachic* ocean "above the Firmament." John Taylor does not specify his views as to the astronomi-

* Later; having now perused this volume I take pleasure in recognizing in it a corroboratory testimony, in the premises, of the highest value. Only a few hundred of these books are now in print, although Professor Vail writes me he contemplates a revision, should the demand justify the expenditure. Truth Seekers should secure copies.

† Published in London 1859. Longman, Green, Longman and Roberts.

‡ "An Important Question in Metrology" 1884. John Wily & Sons, 53 East 10th Street. Parts of this work were sketched as early as 1876, while the author was on College duty at Amherst, Massachusetts, and the whole volume is a Study on the Great Pyramid as an Inspired Monument, and on the inherited weights and measures of *Our Race*.

cal character of this "Great Deep," but upon reading him my own mind at once associated the idea with the equivalent of a "Saturnian Ring" as briefly developed in these pages. It is now an additional pleasure to find that Professor Isaac Newton Vail had arrived at, and lectured upon a similar conviction so early as 1868; had published his "Annular System" in 1885 and that it contains a full and carefully digested array of facts arguments and calculations on the subject. Such as are familiar with our own fruitless efforts to obtain an editorial hearing for the Our Race Topics, (See Rejected Addresses, Series I, Study No 1,) will appreciate what Captain, Carter related to me to-day as to those of Professor Vail, to the effect that his experience was similar, and I doubt not will extend to him an immediate patronage.

APPENDIX O.

THE CALL, THE EXODUS, THE DEDICATION.

EXODUS xii. 40-41, taken in connection with Numbers xxxiii. 3. has been the riddle of Chronologists for centuries. Nevertheless its solution is of the utmost importance, for by it we may fix not only the date of the "Call" from Ur, and that of the Exodus, but that of the 15th day of the 7th month of Solomon's 4th year of reign, and the 15th day of the 7th month of his 11th year, which fetches us down through three thousand years of Hebrew history to the year which saw the Temple "Completed in all its parts."

Now the natural solution of the riddle of Abraham's Call is as follows: He was seventy-five years old when he left Ur upon the 15th day of the 7th month of his Father Terah's 205th year. The Call itself preceded the departure by about two weeks, and is to be located upon Tuesday the 1st day of Nisan 2082, this being Abraham's own birthday. The journey seems to have progressed no further than Haran, which is beyond the river, and there they dwelt during Terah's final sickness, (about 6 months.)

Then, after his father's death, (at the age of 205 and therefore at the end of 2082 A. M.) Abraham left Haran and passed into Palestine early in 2083 A. M. (he being of course still seventy-five years old until the 1st day of its 7th month!)

From the Exodus from Ur to the Exodus from Egypt brings us to "the *end* of the 430 years," of the *sojourning*—of the children of Israel who dwelt in Egypt.

Moses makes these Exodi to have been upon "selfsame" days, and the Calendar comes to our rescue to *explain* his meaning, which is not apparent to the superficial reader. The reasoning of the *latter* is as follows: If Abraham left Ur in 2082 A. M. and Moses left Egypt 430 years after, the Exodus must have occurred in 2512 A. M. and Solomon's 4th year being the "480th year after the children of Israel were come out of the land of Egypt" would have brought Chronology down to the year 2992. Hence, allowing the seven years for building the Temple, we have its Dedication in 2999 A. M.

But this calculation is exactly one solar year in error, and the explicit wording of the Mosaic account proves it; for he not only refers "to the *end* of the 430 years" but ties himself down to a "selfsame"-ness of dates which forces an appeal to the Calendar itself! Certainly all this care means something special, and if something special then something different from the common acceptance.

There are several ways of explaining the matter. For instance: suppose a son had been born to Abraham upon the day of the Exodus from Ur, and suppose the child had lived to be "430 years old" and to have come out of Egypt *at the end* of "that year of his age." It is clear he would have been 431 years old and have come out upon his birthday!

This is exactly what Moses means. Chronology is "past time," a first year of *duration* does not count as 1 until it is *over*, and we count 1 until a second is over, and so on to 430, which counts as 430 *to its end* and the whole sums up (if we want the sum) to 431. The same reckoning is apparent in the years of Terah's life. He was 204 "years old" when he left Ur, in fact he was half through that year, he died *at the end* of it, hence he is properly recorded to have lived 205 years.

Moreover Chronology is Astromony or it is valueless, and that of Moses will stand the severest test. The rigid law of the week of 7 days runs back to the first day (Sunday) of Eden without a break; and, all along the line, the days brought out by the recovered

Calendar demonstrate the accuracy of the record, because they harmonize with the requirements of the Sabbatic law. If they did *not* then would we have at last discovered a Mistake of Moses!

So the rigid law of the Eclipses runs back through History in teams of 70 which repeat as unerringly as do the days, and by them we can locate or adjust doubtful dates which history records in Eclipse connection. The transits of Mercury and Venus roll back in teams to the dawn of Creation, and the Solar and Lunar cycles of every degree move with them, all in such complex yet beautiful coördination that the network whereon the days of man are strung may not be altered in a single strand.

It is God's order of time, and if human history, as now written, does not agree thereto, then the dates of human history are out of place, the error is ours! not His! and it is we who have misarticulated the skeleton of Time! Moreover through these cycles run a higher transcendental class full of the mystery of number and the coincidence of harmony. These are the so-called Prophetic periods and eras, which color as it were the woof and weft with hues as varied as the coat of Joseph, blending here and there in intimate relations with the Astronomic cycles, then leaping over great lengths of time to cluster about some sacrifice or sin.

Finally, the method employed by Moses to span the era between the Call and Exodus, displays an absolutely correct knowledge of the calendar (day by day, through "All Past-time" in so far as *he* was concerned,) and a deliberate intention to be as explicit as possible, that is to the day! In the particular case under consideration he employed what we may term a *Chronological idiom*, and it is not for us to criticise it by our own methods and expressions, *but to get at his true meaning!*

We may in fact paraphrase the whole matter in modern and familiar terms. For instance, let us suppose some future generation to discover a tablet inscribed as follows. There is but one true solution to it, the one *intended*; and it is the correct one; and yet we warrant that fully as much controversy would be generated by the discovery as still surrounds the interpretation of the Mosaic texts to which it plainly refers.

SOLUTION: The Declaration of Independence was made Thursday,

DEDICATED TO POSTERITY,

AT

HIGH NOON,

THIS FOURTH DAY OF THE SEVENTH MONTH,

1877 A. D.

(Being Wednesday, the 185th day of the year.)

"All men are born free and equal,"
therefore unto all Mankind we extend
"the Olive branch" of Manasseh and send

GREETING.

Now when the Independence of the People (who dwell in these United States of America) was

ONE HUNDRED YEARS,

Behold they invited all Nations, Kindreds and Tongues under Heaven to celebrate the event, at an International Exhibition. And it came to pass that at the end of the Hundred years, even on the selfsame day of the week and of the year, it came to pass, that they CLOSED their

CENTENNIAL EXHIBITION;

And they dated and dedicated THIS MONUMENT at the aforesaid CLOSING of their Bi-Jubilee, whereby the calendar may be perpetuated, and verified, and, whereat it may be rectified should it become disarranged.—Exodus xii. 40, 41; Num. xxxiii. 3.

Done by direction of the People, in their Senate and House of Representatives assembled: and through the grace of God, unveiled and consecrated by me,

{ At Philadelphia, Pennsylvania, the } Rutherford B. Hayes,
{ "Cradle," and the "Keystone," in } XIX President of the United
{ the first year of the 23rd "iv-year" } States.

Term" of the Presidents, and at the end of the Fourth Month of the lxxxix year of the Constitution, it being the noon between the 122nd and 123rd days of said Constitutional year, or the 4th day of the 9th month of the 2874th Astronomical year since the year of the Dedication of Solomon's Temple, "Common A. M. reckoning," being now exactly 1 year and 9 months, or 638 days FAST!

July 4, 1776, this being the 186th day of the year (a Leap year) and therefore the 185th day of *that* year being a *Wednesday*.

Now the Centennial year came in on Tuesday, the 4th of July, 1876, and lasted until its end on Wednesday, July 4th, 1877, which was the 185th day of this latter (1877) year, (it not being a Leap year). The Tablet's inscription assumes that the Centennial Exhibition opened July 4th, 1876, *and continued for one year*, at the *end of which* (it being the 100th year throughout its duration) the monument was set up. Thus it was dedicated at the *beginning* of the "102d year of Independence," or at the end of "the 101st" and the week-day of Dedication, like that of the day *before* the Declaration, was Wednesday, both of them being the 185th of their respective years, *i. e.* "*self same* days." Now while these peculiar circumstances *conceal* the real date from superficial readers, if they do not know it from other sources, they are a consummate test of chronological accuracy as among several, should the true one be lost; and taken in connection with the data given in the attestation, upon the pedestal, they constitute a net-work of astronomically located historical events the which but one fundamental date (Thursday, July 4th, 1776) can satisfy.

APPENDIX P.

THE LOGOGRAPH AND ITS KEY.

gsvhizbtg & 7axw & psravzhuuhommhiphdsiavppb. Key (1°) 6.1.1 5.3.7.7.3: (2°) 11.10.9.8.7.6.5.4.3.2.1.+; (3°) Upper case; (4°) Apply; (5°) Read; (6°) The Secret!; (7°) The Reward!

APPENDIX Q.

PELEG.

"LET us consider, that *Moses* proceeds next to give us the *Names* of the first descendants of these three Sons, and to mention the *Names* of the *Countries* which the principal of them inhabited, especially those whose affairs would afterwards be mixed, or have

some connection, with the Transactions related in the Bible, particularly with the *Israelitish* Nation. But as for the rest he takes little or no notice of them.

“So that we cannot expect that any great notice should be taken of the inhabitants of so distant a part of the world (from that where Moses wrote, and the intent of his writing) as the continent of *America*; and yet, one would be apt to imagine, that as he, who inspired Moses in his account, *saw all things from the beginning to the end* (and who had made of one blood all nations of men for to dwell on all the face of the earth, and had determined the times before appointed, and the bounds of their habitation. Acts xvii. 26.), so He would, in speaking of the migration of mankind towards re-peopling the earth, make some mention, (let drop some few words concerning the manner) by which so large a part of the world, as the Continent of *America*, became inhabited.

“And such there is reason to think he has done, and left recorded in the following remarkable passage (the event denoted by which, was so singular as to give name to one of the post-diluvian Patriarchs; and is twice repeated in Scripture) viz: Gen. x. 25, 1 Chron. i. 19. *And the name of one* (of *Heber's* sons) *was PELEG, for in his days was the earth DIVIDED* (*NePeLeGe*). On which words, that celebrated Biblical Critic *Bengelius* thus occasionally remarks in his *Ordo Temporum*, p. 54.

“*Peleg, a divisione terræ, nominatus est, etc. i. e. Peleg was, was named 'from the division of the earth* (which happened in his days);—The ‘earth after the deluge was divided by degrees, by a *genealogical* and ‘*political* division, which is expressed by the words נפצה* and נפררו†

“But a very different kind of Division is meant by the word נפלגה (NePeLeGe), namely, a *physical* and *geographical* division, which ‘happened at once, and which was so remarkable, and of such extent, as ‘suitably to answer the naming the Patriarch therefrom. By this

* As Gen. ix. 19. *These are the three Sons of Noah; and of them was the whole earth OVERSPREAD* (נפצה).

† As Gen. x. 5. *By these were the islands of the Gentiles DIVIDED* (נפררו) in their lands; every one after his tongue, after their families, in their nations; so also ver. 18 and 32; and ch. xl. 9. *From thence* (from Babel) *did the Lord SCATTER THEM ABROAD* (חפיצם) upon the face of all the earth.

‘ word (PeLeG) *that kind of Division* is principally denoted, which is
 ‘ applicable to *Land and Water*. From whence in the *Hebrew* tongue
 ‘ פֶּלֶג (PeLeG) signifies a *River*, and in the *Greek* ΠΕΛΑΓΟΣ (PELA-
 ‘ GOS) the *Sea* ;’ (and in the *Latin*, *Pelagus* denotes the same). From
 this precise meaning of the word then we may conclude, that the
 Earth was *split or divided asunder* for a very great extent, and the
Sea came between, in the days of *Peleg*. Now surely when any person
 views the situation of *America*, and considers how it stands dis-
 jointed from this part of the world, and what an immense Sea divides
 it from us, he will not be backward in allowing, that *This* was the
grand Division intended by the Passage under consideration. And
 therefore we may justly suppose with the above mentioned writer,
 ‘ That, soon after the Confusion of tongues and the dispersion of
 ‘ mankind upon the face of the whole earth, some of the sons of *Ham* *
 ‘ (to whom *Africa* was allotted) went out of *Africa* into that part of
 ‘ *America* which now looks towards *Africa* ; and the *earth* being
 ‘ *divided or split asunder in the days of Peleg*, they, with their pos-
 ‘ terity (the *Americans*) were for many ages separated from the rest
 ‘ of mankind. This separation of the human race, by means of so
 ‘ large a sea, prevented in like manner any evil and pernicious con-
 ‘ spiracy, as the Confusion of tongues did.’

“ ‘ AND if this account can be seconded by any similar event
 related in ancient Heathen History, our supposition may deserve a
 greater degree of credit. And such an event we have recorded by
Plato in his Dialogue named *Timæus* ; in which he treats of *Nature*
 or *The System of the Universe*, its generation or beginning, and the
Nature of Man. And as a prelude to his Subject he makes mention
 of a Fact that happened in the most early ages, the nearest of any
 known to the beginning of the world ; and that is of a vast Tract of
 land or an Island greater than *Libya* and *Asia*, situated beyond the
 bounds of *Africa* and *Europe*, which, by the concussion of an earth-
 quake was swallowed up in the Ocean. *Plato* introduceth this fact,
 as related by *Solon* (one of the first of the seven wise men of *Greece*)
 who, while he was in *Egypt*, had heard it of an old *Egyptian Priest*,
 when he discoursed with him concerning the *most ancient* events.

* (From what the *Indian* says to the *Spaniard* p. 72, it appears, that the
Americans themselves retained some kind of tradition that they were de-
 scended from this Son of *Noah*. (vide *Calcott's treatise*.)

This Priest tells *Solon* that the *Greeks*, with regard to their knowledge in antiquity, *had always been children*; and then informs him of the history of this famous Island (which they knew nothing of before), the description of which and its catastrophe is as follows (which in itself is so remarkable, that there must have been some ground in nature for the tradition of it): ‘There was formerly an Island at the ‘entrance of the Ocean, where the pillars of *Hercules* stand (and so ‘beyond the then supposed bounds of *Europe* and *Africa*). This ‘island was larger than all *Libya* and *Asia*; and from it was an easy ‘passage to many other islands; and from these islands to all that ‘Continent which was opposite, and next to the true sea (ἀλήθειον πον[ον]). Yet within the mouth there was a gulf with a narrow ‘entry. But that Land, which surrounded the Sea called Πέλαγος ‘(PELAGOS, where the *Division* was made) might justly be called a ‘Continent. . . . In after times there happened a dreadful earthquake, and an inundation of water, which continued for the space of a ‘whole day and night, and this island *Atlantis*, being covered and ‘overwhelmed by the waves, sunk beneath the ocean and so disappeared. Wherefore *that Sea* (Πέλαγος) is now unpassable; on ‘account of the slime and mud that has been left by the immersed ‘island.’ *

APPENDIX R.

A LETTER FROM BISHOP WILLIAMS.

MIDDLETOWN, *April 4, 1889.*

“My dear MR. TOTTEN,

“I have tried to follow out your lines of calculation, but I really am not competent to do so. I can, however, truly say that it seems to me that your views are worthy of the most careful study and I can fully recommend them to the attention of Biblical and other scholars. I am sure they will repay any study bestowed on them. With best wishes and pleasant memories of the olden time, I am most truly yours,

“J. WILLIAMS.”

“Bishop of Connecticut.
Episcopal ‘Primate.’ ”

* Extract from “*A Treatise on the Deluge*,” by A. Calcott, Lecturer of St. John’s, in the City of Bristol. Published in London, 1761. (pp. 89, 90, 91, 92).

“ And every living substance was destroyed which was upon the face of the ground, both man and cattle, and the creeping things, and the fowl of the heaven, and they were destroyed from the earth; and Noah only remained alive, and they that were with him in the ark.”

Gen. vii. 23.

OUR RACE:

ITS ORIGIN AND ITS DESTINY.

SERIES II.

FEBRUARY, 1892.

No. 6.

EDITORIALS.

AS in the days of Noah, the Deluge was a Fact, so in these of ours doth a chronological vindication thereof re-guarantee the coming of the Son of Man! To deny this is to rule the Saviour Himself out of court! to invalidate His testimony, and to question His reliability as a witness! the which, distinctly, we decline to do in any sense at all. It is because of doubt engendered by a presumptuous criticism of these fundamental pillars of the Pentateuch, whereby the leaven of disbelief has spread throughout the lump, that in these latter days men high in Israel teach us to question the warnings of the Scripture as to the future, and by spiritualizing whatsoever will in no other way accommodate itself to their own convenient theories, render the Word of God of none effect.

It is time for Christians to realize the situation, and to come out of an emasculated Church, for it is doomed to a destruction which will begin it works at hollow altars, and, thank God, make short work of the task! For so surely as there is a God in Heaven who hath sworn by the verity of this very Flood!, the day cometh and now is, when once more it shall be "as in the days of Noah," and it behooveth such as have accepted Christ, in verity and truth, to disassociate themselves at once from all who preach a lie, no matter in what raiment clothed! For there yet remaineth unto them only who will lay hold thereon "the Blessed Hope" of a veritable Ark of Refuge—even the New Jerusalem—out of the coming Crisis; and the time is short wherein to reach it with a wedding garment! For if God be true, although all others lie, the Flood is true, and so is the Future!

*
* * *

"Let the dead bury their dead"—let such as are self-satisfied in doubt confirm themselves in disbelief! but follow thou the truth, in the only Way that leadeth unto Life: for God is not a man that He should lie, nor will any word that He hath uttered go back unto the Heavens void!

If your clergyman does not believe in the Flood, but explains it in his own way; if he has doubts upon Beth-horon's miracle; is rather skeptical as to the story of Jonah, and finds that false astronomy

was shadowed in the Dial of Ahaz, how shall he preach the Gospel tidings of Salvation with their vaster promises and grander hopes?

It is a sorry day for Faith when mortal man, forsooth! must plead for the Almighty, and when apologies are necessary to support the pillars of our Creed; and sorrier than all is such a day as ours, when men are suffered to preach what is but the poor philosophy of hopelessness, and sell the sham to a deluded congregation. This verily is a stone instead of bread, and a serpent rather than the Fish which is the emblem of Salvation!

*
* * *

“I am not an Adventist,” says one, “nor have I any patience with a Chronologist,” says another—but both preach! Good friends, if then there be no Advent, how pray will the dead rise up? And if there be not literal resurrection, where then is the Victory of Christ? Did the angel lie to Daniel, and is his “lot” a thing of naught? Will Job in the flesh never see God? And are the times and seasons, and the genealogies of the Scriptures, lumbering the Book? The men who preach upon the shady side of doctrines founded upon everything but literal truth are clearly mixing poison in the chalice, and the end of them who listen to them is literally vanity.

*
* * *

As Professor Huxley and others are still seeking for Facts about the Flood, it has been our privilege

in the present Study to supply a few. They are principally Chronological ones and go to show the infinite accuracy of Moses, (*i. e.*, of Inspiration), when tried at the bar of modern Astronomy. But the topic opens up a broader field and shows that the Editor and Writer of the Pentateuch was rigidly correct in all the scientific references he found it necessary to make.

Nevertheless we fear that one statement made by Professor Huxley is founded upon a pretty thorough canvass of the situation. It is as to the quality and quantity of the faith accorded by the current generation of Higher Critics and Nominal Christians to the record of the Deluge as given in the book of Genesis. In the "*Nineteenth Century*," the Professor states as follows :

"Notwithstanding diligent search, I have been unable to discover that the universality of the Deluge has any defender left, at least among those who have so far mastered the rudiments of natural knowledge as to be able to appreciate the weight of evidence against it."

We are sorry to record that we have also found the facts about as related, but would qualify them somewhat differently, and this particularly as we ourselves have undertaken to defend the Biblical proposition that the Deluge was a universal cataclysm. It is a fact that there now are few if any "Scientific men" who either care, or dare, to defend the literal Mosaic account. They seem to recognize

that so to do would be suicidal to their very reputations in the modern schools, and so they either hold their peace, or boldly challenge the whole record.

*
* *

In the meanwhile, as a direct result of their over-anxiety to win the world, tares and all, into the ranks of a merely nominal Christian Church, they have compromised with their more aggressive scientific opponents, and the "liberal" shepherds of a straying flock have but too often sealed the articles of capitulation with their full endorsement. The writer has put the crucial question of faith in Genesis as written to some of the leaders among the Higher Critics, and to many teachers in Israel, and without exception they have either freely admitted their doubt or disbelief, or else have been unable to give any adequate reason for their faltering faith. In the latter case, when confronted with the cold logic of their dilemma, they were manifestly anxious in the premises, as proved by their haste to apologize for the account, and to explain its general truth as all-sufficient.

*
* *

In his continuation of the discussion from this point of view, Professor Huxley is keenly correct in his analysis, and shows how completely the ancient landmarks of Faith have been removed.

"For example," says he, "when I turned to the 'Speaker's Bible,' published under the sanction of

high Anglican authority, I found the following judicial and judicious deliverance, the skilful wording of which may adorn, but does not hide, the completeness of the surrender of the old teaching. "

" ' Without pronouncing too hastily on any fair inferences from the words of Scripture, we may reasonably say that their most natural interpretation is that the whole race of man had become grievously corrupted since the faithful had intermingled with the ungodly ; that the inhabited world was consequently filled with violence and that God had decreed to destroy all mankind except one single family ; that, therefore, all that portion of the earth, perhaps as yet a very small portion, into which mankind had spread, was overwhelmed by water. The ark was ordained to save one faithful family ; and lest that family, on the subsidence of the waters, should find the whole country round them a desert, a pair of all the beasts of the land and of the fowls of the air were preserved along with them, and along with them went forth to replenish the now desolated continent. The words of Scripture (confirmed as they are by universal tradition) appear at least to mean as much as this. They do not necessarily mean more.' "

As for ourselves, we take exception, both in letter and in spirit, to this surrender, and have no intention of abiding by it. The truth or the falsity of the Bible is the fundamental question of the day, and it has come with special prominence before

Anglo-Saxon thinkers, as the outgrowth of the apologies, such as the above, which the Church, so called, has felt called upon to make along the march of modern Astronomical and Geological progress. (?) If the admissions of the pulpit continue, I cannot see where the retreat will end short of the final cover of the Book.

*
* * *

There is a great deal said about "the evidence against the Flood." I have failed to find any such antagonizing testimony, and have shown that the evidence of Astronomy is directly in its favor.

Since writing this volume I have also come across so complete a harmony of Geology and Genesis that I must regard the Deluge as the ruling factor, the ultimate court of appeal, in explaining the terrestrial changes which hitherto have completely mystified the students of Physics.

As to the testimony which History affords on the question at issue, it is not only overwhelming, but more concurrent than it accords to any other subject whatsoever.

*
* * *

"The tradition of a deluge which destroyed a sinful race, leaving only a few survivors to re-people the earth, is wellnigh universal. It comes to us from America, from Syria, from Babylon, from the buried tablets in the Royal Library at Nineveh, from Phrygia, from Persia, from India, from Greece, from China, from Kamschatka, from Lapland, from

the Kelts, from Wales, from Scandinavia, from Lithuania, from Russian America, from the Indians near the Polar Sea, from New Georgia, from the Iroquois, from the Appalachian Indians in Florida, from the Cherokees, from Mexico, from Cuba, from San Domingo and the Antilles, from Peru, from Brazil, and from all parts of South America."

* From Ireland and from Egypt.

*
* *

"But arguments are useless with such skeptics as contradict the consenting tradition of the human race, ancient and modern, confirmed by the oldest existing records, both sacred and profane, and produce no facts to sustain their own opinions; and scoffers, who in these latter days, walk after their own lust, saying, 'Where is the promise of his coming? for since the fathers fell asleep, all things continue as they were from the beginning,' such as are willingly ignorant of these things, would do well to consult the tradition and records of a deluge of waters in ages past, and to remember that as the Word of God pronounced that doom upon the ancient world, so 'the heaven and earth that now are, by the same Word are reserved unto fire against the Day of Judgment and perdition of ungodly men,' and that as the deluged world emerged from the

* Professor I. N. Vail's "Annular System of the Earth," see page Appendix—present Study. See also Galloway's "*Science and Geology in Relation to the Universal Deluge*," Lampson Low, London, etc.

waves, and became fit for a human habitation, so there shall, according to God's promise be 'new heavens and a new earth wherein dwelleth righteousness.' " *

The Flood itself is thus *the prophecy* or "the promise" of the Second Advent, and its vindication is a startling answer to the scoffer's question, for by his very endorsement of it as a *fact*, will the Son of Man judge all who make His words of none effect!

*
* *

It is certainly an error not to read both sides of a question, and as we have read the arguments of those who claim that Moses made mistakes, we trust that they in turn will favor ours with fair consideration. There is much at stake, and it behooves all men to look the issue squarely in the face. The Science of Chronology has re-entered the lists of Biblical Exegesis with no intention of leaving them, and that of Etiology is its armor bearer. By the latter we mean the Science of the Stars, *i. e.*, of Astrology, such as Daniel and Joseph understood and practised; the lore of the Magi; the wisdom of the Chaldaee College.

The testimony of Jesus Christ Himself endorses the authority of both of these sciences, and His entire discourse as to the times of the end, was pointed by such marked and specific references to

* The Christian.

certain Signs in the Sun, and Moon and Stars, which should accompany the final generation, that to the degree in which we are able to read them each "watcher" becomes an Astrologer in a proper sense.

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* *

"As it was in the days of Noah," so it appears that God's wrath culminated in 1789. It was "immediately after those days" (May 19, 1780) that the Sun was darkened at noon, in defiance of any known Astronomical cause, and that the full "Moon withheld her light." Yet the days of Man, as in the days of Noah, were lengthened for 120 years, the lease of which hath wellnigh run! The Lisbon earthquake was another fulfilment of an Astrologic prophecy, and the Star Showers of 1833 and 1866 still others portending that of 1899!

But it has been particularly during the current generation (70 years, dating from about 1829 A. D.,) that the war of the elements, and the signs in the Sun, by which the former are excited, have gained renown among philosophers: Auroras without parallel, Yellow, Red and Burning days, Earthquakes in divers places, Famines, Pestilences, Wars and rumors thereof, strange signs in the Heavens, the seas and the waves roaring, and certainly men's hearts failing them for fear! It is to no purpose that we enumerate, we can refer such readers as desire to volumes wherein the data have been specifically collected and classified.

And furthermore, "as in the days of Noah," the moral wickedness of man has so increased that merely to mention some sins now practised would only serve to spread the poison; for the very demons are at work; and every evil that was prevalent before the Flood, hath its dread counterpart already in our midst! Those who are informed well know my meaning, and further than this hint it is best to cast no sparks into the tinder of a world reserved for literal fire!

*
* *

We have had frequent occasion to refer to the British Chronological Association of whose researches we are ardent students. Many queries have been sent us concerning their work and publications. The President of the association, and the Premier Chronologist of Great Britian, is J. B. Dimbleby, Esq. His address is Gordon Road, Hamstead, near London, England,* and a money-order of \$1.00 with a request for selected publications will no doubt be honored by the consignment of very valuable material. We trust that all of our constituency will avail themselves of the opportunity to recognize and assist this undertaking to vindicate the accuracy of the Scriptures. In our own work we only differ in minor matters of judgment, (within those limits where it is justified) with some

* The surest way to reach Mr. Dimbleby is to address the letter care of his Publishers, The Book Society, 28 Paternoster Row, London, E. C.

of the chronological conclusions of this Society, but we recognize the inestimable value of their fundamental system, and follow it in all of our work. That we are at one in our general conclusions as to "the Coming Crisis" the following quotation from a recent publication of Mr. Dimbleby will demonstrate, to wit: "What then is the lesson that the Scripture and the Science of Time reveals? We may expect that all civil governments and 'isms' will be overturned in *less than seven years hence* (I write these lines, says Mr. Dimbleby in Sept., 1891) and that Divine authority will follow. We must also expect that most of the righteous persons now living *will never see death*.

"Christians have now not long to labor and warn the disobedient. Soon we shall hear the shout of Archangels and booming trumpets which will herald the presence of the Son of the living God.

"Events will rapidly transpire one after the other, and they are so near that even men far advanced in years may expect to see the beginning of the grand climax of the plan of redemption. * * * These are my convictions—not hastily made, nor made without following every year on *five* lines of astronomical time—and if any man thinks I am in error, I ask him to *work out his calculations on paper and identify* all his years by producing the eclipses of each year. This is necessary, otherwise he will not be able to show that his years have had any other existence than in his own mind."

We look for similar things, but in view of the special light let in upon the Origin and Destiny of Our Race, through its identity with Lost Israel, we contemplate that England and America, although certain to be punished in measure, will escape that complete overturning which is destined to befall all other polities. We do not expect the throne of David to go down, nor do we contemplate as in store for us of Joseph's Western House a greater Crisis than a *genuine* Reformation. The administration of the Constitution and Laws of the United States by genuine Statesmen, and the enforcement of good government by the Sons of the Revolution will in one sense be an "overturning"—and one devoutly to be desired as an outcome of the Millennium.

*“ The first wrote, Wine is strongest.
The second wrote, The King is strongest.
The third wrote, Woman is strongest, but above all
things Truth beareth away the victory.”*

I (III) Esdras iii. 10-12.

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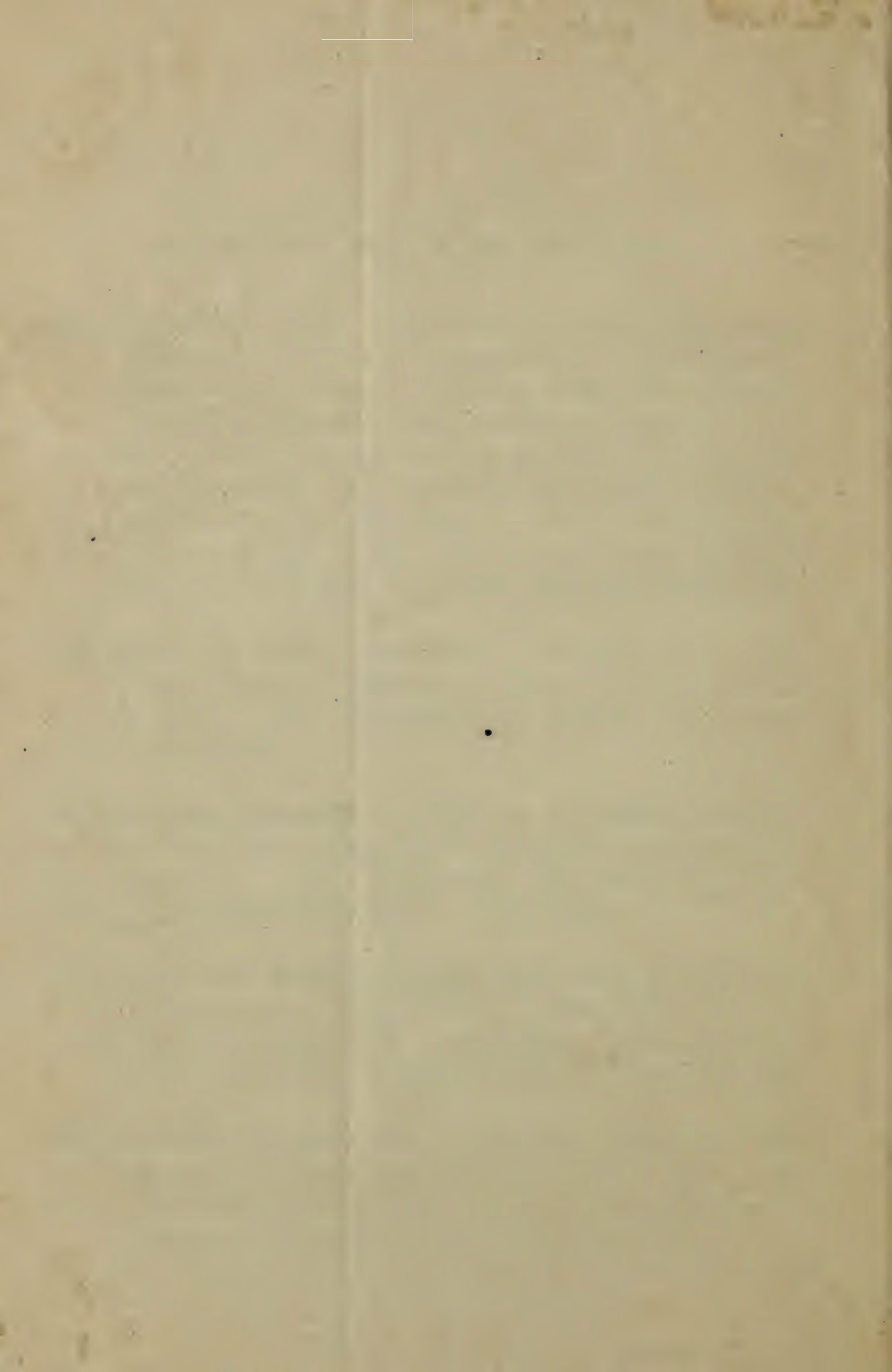
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