

coast suffered severely at this time.

It was a similar storm that on Aug. 27, 1893, ravaged the coasts of Louisiana, Florida, Georgia and South Carolina, being most severe in the latter State, where 1,000 lives were lost.

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Newspaper readers are familiar with the awful accounts of cyclones, blizzards, lightning, water spouts and earthquakes. Why not live where one can go to bed at night without fear of flood, wind or lightning. WE would be very much pleased to have all our readers learn the remedy for such awful catastrophes. Would we be wise to build the L. U. O. in such a storm region? Then why should any one build a home there? We would not be afraid to "go to Texas" for a short time, nor to Alaska, but we should certainly plan to LIVE where chances for life are greater and where prayer is more apt to be answered.

The Nebular Hypothesis vs. The Nebular Theory. Please Don't Foreclose the Universe.

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and yet gradual "compaction" into "NEW suns, under the pressure of gravitation"—all of which is "ALL BUT visible." Ah! but not quite. We will wait to see how orbs of pale fire(?) which already exist can be made "new suns" by a gradual compaction of a whirling motion "under the PRESSURE of gravitation." Should this mechanical jumble of "pale fire" ever become not only "all but," but really "visible," one would be tempted to suffer the "horrors of immortality" in waiting to see it.

Now, all of this incoherent verbiage is supposed to be realized by this, the only fact really tried to be stated in the whole article, viz., by "the strange Trifid nebula in Sagittarius," which is described as "a HAZE, sprinkled with stars and CHANNLED with dark, WINDING gaps running into ENDLESS branches like the roots of a gigantic tree," and which "contains the whole potency of a future system of suns and worlds." Then, as a climax, we are told that this endless root-branched tree of haze "held the seed of humanity, awaiting its time to sprout and spring up and grow into the beauty of the "image of God!" Thus man came from the seed of this tree, which is still in the sky!

We decline to believe that Prof. Serviss ever emitted this nonsense. It is more like the echo of a "spirit" seance. The surprise is that Friend Wettstein should be imposed upon by it. It only shows how necessary it is never to let any "theory," nebulous, spirituous or other, overwhelm our common sense. That this article and our friend's de-

ductions do not fairly represent Prof. Serviss, is clear to us from his interesting article in the New York Journal last fall, in which he illustrates Prof. Newcomb's and the Lick telescope discoveries by an interesting diagram of the Milky Way and of our sun's course on its grand course to join it with Lyra. He shows how our sun may become a happy member of that constellation, or pass on to other "universes" in the infinity of space beyond. All of which does not at all comport with the cool-down and die-out idea of our friend's Nebular Hypothesis.

Let us try to imagine a "haze sprinkled with stars, channeled with dark, winding gaps, which RUN into endless branches which are like the roots of a gigantic tree." Rotate, just rotate, this star-haze tree, with its endless branches like roots, according to the Nebular Hypothesis, until it produces a "system of suns and worlds," that is, suns and planets! The "seed of humanity," "the image of God," may be in it; but not even the most Almighty God, with all eternity for the job, could rotate the "endless branches" of a star-sprinkled haze, or of endless "winding gaps." This star-sprinkled, endless root-branched, winding-gapped tree nebula haze is the utter opposite of anything possible under the rotating Nebular Hypothesis. And if the separate stars rotate with their condensing nebula, then, as said above, the continuous nebula is ended in and by each separate sun rotating out its own planets. In any view of the nebulae presented in this article, the Nebular Hypothesis is a conjecture of that which is absolutely impossible.

But, lastly, the whole article fails to touch the real difficulties or questions of the subject, for not a single one of these nebulae, and not a single star, can be seen to rotate. We do not know yet that a single sun but ours has even a planet. The force that can rotate haze, endless-branched or not, is hard to conceive. It might float in a vortex, as Descartes supposed, but how can gravity alone "compact!" and rotate it at the same time?

The supposed morphology of star clusters and constellations has, in the past, filled the sky with beasts and men. The morphology of nebulae is filling it with human astrology of endless-branched trees and other fancies just as groundless. Until we get hold of the lines of the currents and correlations of the changes or forces which determine the MOTIONS, and therefore the forms of nebulae, stars, suns and comets, we are all at sea in the celestial spaces. These bodies cannot be explained separately, but only in and by their relations and movements as vast inter-related systems. In order to do that, as

Haeckel has intimated in his "Weltrathsels," we must get hold of the relation of ether to matter, and acquire a new notion of its origin, formations, attractions and repulsions. This, he says, is the problem for the next century. The solution of the Milky Way and the wonders of star forms and motions must wait till then, and after, and perhaps forever. In view of the immensity of these subjects, the Nebular Hypothesis is simply a childish fancy; a reflexion of the dogma of creation, and of the eastern cycles, and just as groundless. No sun, star, nebula or comet works itself. Every motion is the result of a mighty equivalent correlate, which must be understood before we can know the genesis or motion of any part of any star system.

Man may never know the genesis (origin) of our sun and solar system. It may have been the condensing of nebulae, the atoms of which, were the "first born" of the ether under forces like light and electricity. It may have been, as Lockyer and Proctor plausibly suppose, the gradual aggregation of comets, meteors and nebulous dust, which have left their "pock marks" in the moon; it may have been all of these ways combined, and more. It is premature to pretend that we have a "theory," that is, a "scientific solution," instead of an "hypothesis," that is, only a speculation or conjecture, while we hunt and wait for these facts and their laws. What we do know is the statics, and largely the dynamics, of our own solar system; and by the law of equivalence of changes we are getting at a theory which will explain the facts and general laws of coelestial gravitation and repulsion. In the meantime, the facts and laws of equivalent correlation make sure the durability of our earth and sun for time beyond our power of computation, as first above intimated. This is all we need to know in order to begin to realize our human and Earthly Paradise.

But not to know that the earth and man have a practical eternity before them, and to be told that in short or long time Humanity will have a freeze and then end in a burning nebula, has a depressing effect. No human ever reads Herbert Spencer's "Essay on the Nebular Hypothesis," or his conclusion of his "First Principles," without feeling that the universe, instead of "God Almighty," is passing the sentence of death upon man and his earth and race. To sensitive people it gives a chill. One of our leading and best Liberals wrote me recently his thanks for what I have heretofore said on this subject, thus: "It was one of the things I needed, too, as I am inclined to think NOTHING IS WORTH WHILE, because some day it will all go up in smoke or catastrophe, and way down in

me that idea holds hard." The Theologians have been quick to see their advantage in this matter of sentiment, which they know dominates mankind. When this hypothesis was put out a century ago by La Place, it was Atheistic. His oft-quoted reply to Napoleon's question, why the name of God appeared in none of his works, was reported to be, "Because, Sire, I have no need of that hypothesis." This reply has done as much as anything to make him immortal, and justly. But when the Theologs were driven out of their old creation story and substituted "epochs" for days, and evolution as the mode of creation, this final catastrophe of a freezing earth falling into the molten sun suited them right well. Our Friend is surprised that said article ends with the "image of God," but that is logical, and means that there is and will be a God to look after his "images" and manage the business when, as the old hymn said:

Dies irae, Dies illa,
Solvat Sæclum in favilla.
Day of wrath, that dreadful day,
When this earth shall melt away.

So the Theologs argue, that God will certainly not have evolved this world AND man with his moral and social instincts to end in nothing but a gassy haze. He will certainly have provided that hopes and promises by which he has intuitively inspired man shall not fail, and cast both God and universe into "moral bankruptcy." "For then, Oh! how you will need our God and Savior?" The Christian judgment day is thus only postponed; it is to be! You will meet it when you die, and the race itself, in its final earth and sun-baptism of fire! Science is thus made to confirm those "fundamental moral and religious intuitions and beliefs," claimed to be of a higher validity than any merely material Science. The earth and our home are thus turned into a place of probation, and then into a scientific and natural hell, from which one can in nowise escape. Thus hell, which had gone out of fashion, is now discovered to be the new scientific corner-stone of a heaven "somewhere," and the gods, devils and priests have us at their mercy again!

This may be laughable to the real scientist, but how few of such there are! This utterly groundless hypothesis has now become the last refuge of theology, and so of priesthood, and so of moral, religious and political despotism, and so of all of the consequent obstructive wars, misery and devilry on this earth; and at the same time the end of all hope of any real social progress or of any "Earthly Paradise." For the race will some day go up in "smoke and catastrophe," and you will be judged INDIVIDUALLY; and altruism, sociology and