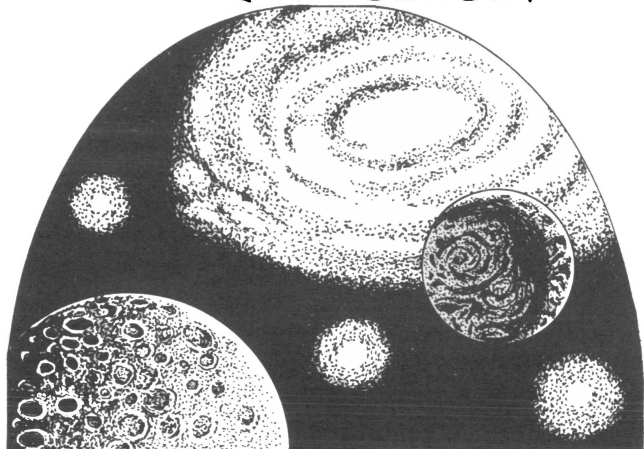


A PREDICTION



A N · E S S A Y

BY THE BYE, lest you infer that my views, in detail, are the same with those advanced in the *Nebular Hypothesis*, I venture to offer a few addenda, the substance of which was penned, though never printed, several years ago, under the head of—A Prediction.

As soon as the next century it will be entered in *the books*, that the Sun was originally condensed *at once* (not gradually, according to the supposition of Laplace) into his smallest size; that, thus condensed, he rotated on an axis; that this axis of rotation was not the centre of his figure, so that he not only rotated, but revolved in an elliptical orbit (the rotation and revolution are one; but I separate them for convenience of illustration); that, thus formed and thus revolving, he was on fire (in the same way that a volcano and an ignited meteoric stone are on fire) and sent into space his substance in the form of vapor, this vapor reaching farthest on the side of the larger hemisphere, partly on account of the largeness, but principally because the force of the fire was greater here; that, in due time, this vapor, not necessarily carried then to the place now occupied by Neptune, condensed into Neptune; that the planet took, as a matter of necessity, the same figure that the Sun had, which figure made his rotation a revolution in an elliptical orbit; that, in consequence of

such revolution—in consequence of being *carried backward* at each of the *daily* revolutions—the velocity of his *annual* revolution is not so great as it would be, if it depended solely upon the Sun's velocity of rotation (Kepler's Third Law); that his figure, by influencing his rotation—the heavier half, as it turns downward toward the Sun, gains an impetus sufficient to carry it by the direct line of attraction, and thus to *throw outward* the centre of gravity—gave him power to save himself from falling to the Sun (and, perhaps, to work himself gradually outward to the position he now holds); that he received, through a series of ages, the Sun's heat, which penetrated to his centre, causing volcanic eruptions eventually, and thus throwing off vapor; and which evaporated substances upon his surface, till finally his moons and his gaseous ring (if it is true that he has a ring) were produced; that these moons took elliptical forms, rotated and revolved "both under one," were kept in their *monthly* orbits by the centrifugal force acquired in their *daily* orbits, and required a longer time to make their monthly revolutions than they would have required if they had had no daily revolutions.

I have said enough, without referring to the other planets, to give you an inkling of my hypothesis, which is all I intended to do. I did not design to offer any evidence of its reasonableness; since I have not, in fact, any collected, excepting as it is flitting, in the shape of a shadow, to and fro within my brain.

You perceive that I hold to the idea that our Moon must rotate upon her axis oftener than she revolves round her primary, the same being the case with the satellites accompanying Jupiter, Saturn and Uranus.

Since the penning, a closer analysis of the matter contained has led me to modify somewhat my opinion as to the origin of the satellites—that is, I think now that these came, not from vapor sent off in volcanic burnings and by simple diffusion under the solar rays, but from rings of it which were left in the inter-planetary spaces, after the precipitation of the primaries. There is no insuperable obstacle in the way of the conception that aerolites and "shooting-stars" have their source in matter which has gone off from the Earth's surface and from out her bowels; but it is hardly supposable that a sufficient quantity could be produced thus to make a body so large as, by centrifugal force resulting from rotation, to withstand the absorptive power of its parent's rotation. The event implied may take place not until the planets have become flaming suns—from an accumulation of their own Sun's caloric, reaching from centre to circumference, which shall, in the lonesome latter days, melt all the elements and dissipate the solid foundations out as a scroll! (Please substitute the idea for that in "Conversation of Eiros and Charmion").

[Written February 29, 1848]