

THE NEBULAR HYPOTHESIS.

"Some drill and bore
 The solid earth, and from its strata there
 Extract a register, by which we learn
 That He, who made it and reveal'd its date
 To Moses, was mistaken in its age.
 Some, more acute and more industrious still,
 Contrive creation ; travel nature up
 To the sharp peak of her sublimest height,
 And tell us whence the stars ; why some are fixt
 And planetary some ; what gave them first
 Rotation, from what fountains flow'd their light."
Croquet's Task.



PHILOSOPHERS and scientists of all ages, but more especially of recent times, led on by natural curiosity and an insatiable craving for hidden knowledge, have endeavored to fathom the mystery which seems to surround the origin of the planet upon which

Providence placed them.

In this endeavor, after profound study, extensive research and prolonged reflection, many have formulated various theories according to which, in their opinion, a satisfactory explanation of the earth's origin, might be arrived at, and the existence of the whole solar system be accounted for. The most plausible, as well as most interesting, among these, and that to which the majority of thinking minds have adhered, is known as the *Nebular Hypothesis*.

This theory was first propounded by the German philosophers, Swedenberg and Kant and was afterwards upheld, but modified, by Laplace, who so thoroughly identified himself with it that it is now commonly called Laplace's theory.

According to this celebrated French scientist, the earth was not created in the state in which it, at present, exists, but was evolved from an immense mass of matter by a series or regular succession of various causes, in accordance with certain well established physical laws

Laplace and his predecessors conceived an immense empty space wherein the Author of all being, in his own good time, created and placed a massive globe of un-solidified matter. This globular mass of incandescent vapor, they supposed, imme-

diately began to condense and lose its heat, and, consequently, underwent contraction at its surface. The surface molecules were thus brought into closer proximity, and the density of the outer portions was necessarily increased.

The result of this increase in density was a proportional increase in the attractive force of gravitation which was exerted upon these surface molecules from the centre ; and, as soon as the attractive force had increased to a degree sufficient to overcome the resistance which was offered by the underlying strata of vapor, large portions of the surface were naturally drawn towards the centre of the vaporous sphere.

In falling, however, they did not follow a direct path from the surface to the centre ; but, although the interior gas was not dense enough to offer a complete resistance to them, nevertheless, it opposed their progress to an extent sufficient to turn them from a straight line, and give them a direction to one or the other side of the centre.

These incrustations at the surface were, of course, irregular masses : and, as a kite when its tail has been broken off, flounders about in its descent, or as an irregularly cut stone when thrown into a river, inclines to either side in its downward path, so these masses of condensed gas were driven to either side of the straight line that would fall between the surface and the centre. But that an equal number of these conglomerations should have fallen towards both sides of the centre is highly improbable ; so that it was safe to assume that a greater weight was exerted on one side of the gaseous globe than on the other, the result of which was a slow rotation of the whole sphere.