

are some of the principal arguments adduced in support of the hypothesis, for, in the nature of the proofs it admits of, it can be no more.

When we descend into the interior of a mine, it is found that the temperature rises in an appreciable manner, and that it increases with the depth below the surface.

The high temperature of the waters in Artesian wells when these are very deep, testifies to a great heat of the interior of the earth.

The thermal waters which issue from the earth—of which the temperature sometimes rises to 100° Centigrade and upwards—as, for instance, the Geysers of Iceland—furnish another proof in support of the hypothesis.

Modern volcanoes are said to be a visible demonstration of the existence of central heat. The heated gases, the liquid lava, the flames which escape from their craters, all tend to prove sufficiently that the interior of the globe has a temperature prodigiously elevated as compared with that at its surface.

The disengagement of gases and burning vapours through the accidental fissures in the crust, which accompany earthquakes, still further tends to establish the existence of a great heat in the interior of the globe.

We have already said that the temperature of the globe increases about one degree for every sixty or seventy feet of depth beneath its surface. The correctness of this observation has been verified in a great number of instances—indeed, to the greatest depth to which man has penetrated, and been able to make use of the thermometer. Now, as we know exactly the length of the radius of the terrestrial sphere, it has been calculated from this progression of temperature, supposing it to be regular and uniform, that the centre of the globe ought to have at the present time a mean temperature of $195,000^{\circ}$ Centigrade. No matter could preserve its solid state at this excessive temperature; it follows, then, that the centre of the globe, and all parts near the centre, must be in a permanent state of fluidity.

The works of Werner, of Hutton, of Leopold von Buch, of Humboldt, of Cordier, W. Hopkins, Buckland, and some other English philosophers, have reduced this hypothesis to a theory, on which has been based, to a considerable extent, the whole science of modern geology; although, properly speaking, and in the popular acceptation of the term, that science only deals with the solid crust of the earth.

The nebular theory thus embraces the whole solar system, and,