47. GEOLOGICAL THEORY OF LEIBNITZ.—If we extend our views beyond the limits of strict induction, and venture to speculate on the condition of our globe in the dawn of its existence, and in those remote periods of which the physical characters are inscribed on the rocks and mountains, it appears to me that the theory of Leibnitz, which embraces the original nebular condition of the solar system, and assumes a former incandescent state of this planet, and its gradual refrigeration, is the only hypothesis in harmony with the present state of astronomical and geological knowledge. The prevalence of a higher temperature in northern latitudes during the deposition of the secondary formations, was indicated by the fossil remains of animals and plants of a tropical character (see page 435). If we admit of a progressive cooling of the earth, we necessarily infer that in the most ancient epochs, the influence of the internal heat upon the earth's surface was very considerable, and that it gradually decreased, till it arrived at the present condition of things, in which the surface temperature is scarcely, if at all, affected by radiation from within. Assuming then as an established theory, what at present, perhaps, must only be regarded as a highly philosophical and probable speculation, we can readily understand that during the secondary geological eras, the temperature of the surface may have been so augmented by a supply of heat from an internal source, as to have maintained a climate possessing the conditions