

the morning, and sent a lurid ray through the dense, refractive atmosphere, and at night sank into the smoke that ascended from a burning world. The morning and evening twilight almost met each other in the midnight zenith, so high and so refractive was the heterogeneous atmosphere. But there was no need of twilight. An ocean of fire sent up to the nocturnal heavens a glare that was more fearful than the poisoned ray of the feebly-shining sun. Here was chaos. Here was the death and silence of the primeval ages, when the Uncreated alone looked on, and saw order, and beauty, and life germinating in the heart of universal discord.

In obedience to the law of thermal equilibrium—a law which undoubtedly rose into being with the birth of matter—the high temperature of the earth gradually subsided through radiation into external space. A crystallization of the least fusible elements and simple compounds eventually took place in the superficial portions of the molten mass. This process continued till a crystalline crust had been formed, resting upon the liquid mass which still constituted the chief bulk of the globe.

It has sometimes been objected to this view that the solidified materials would possess superior density, and would, accordingly, sink into the liquid portions. If this were so, the solidification of such a molten mass would either commence at the centre, or a uniform refrigeration would proceed till the whole would suddenly be consolidated. It is the general belief that the central portions of the earth still remain in a molten condition, while the habitable exterior is but a comparatively thin crust. [See Appendix, Note I.] If this belief is well founded, the first solidified portions did not descend toward the centre. Moreover, we know that, in the case of water and several other substances, the newly-solidified parts are less dense;