when the rocks acquired their principal flexures and fractures. These changes have consisted of the denuding operations of the sea, which probably took place, in great part at least, during those movements of elevation which, after the period of the New Red Sandstone, uplifted the Appalachian strata to their present level above the ocean.

To those who are not accustomed to reflect on the long succession of natural events, often differing from each other greatly in kind, which have concurred to produce a single geological phenomenon, such as a mountain chain, it will always appear very paradoxical that the structure of such a chain is attributed in great part to the sinking, rather than to the forcing upwards, of a portion of the earth's crust. I shall add, therefore, a few words to the brief remarks before advanced (p. 98), in favour of the theory which attributes the folding of strata such as those of the Alleghanies to subsidence. This hypothesis is simply a modification of one very popular with the earlier geologists, who ascribed the fractured condition of the most ancient rocks to the shrinking of the supposed original fluid nucleus of the planet, it being assumed that the earth passed gradually from a state of fusion by heat to a solid condition. It was truly remarked, that during the process of congelation and contraction, the incumbent strata, or those first solidified, would sink and accommodate themselves to a narrower area, namely, the circumference of a spheroid of smaller diameter, and, according to their different degrees of pliability or hardness, the beds would be bent or broken.

When this theory was first propounded, all the