

the mechanical displacements are still perceptible, they are remote and often secondary results of the power that has acted so far below ; and the intensity of the action is weakened, in proportion to the distance from its source.

X. By that mighty action from within, the extruding tendency radiates generally, but with unequal force, to all points on the spheroidal surface of the earth. It follows, that the earlier strata, with scarcely any exceptions, and, in smaller degrees, the less ancient, have been raised up, shattered, and left in various positions of fracture and inclination. Of those dislocating movements, the mode has been different ; and as to the time of production, the process has been generally very slow ; though, in some cases, there are evidences of the disturbing force having acted suddenly and violently. From the portions thus elevated, and left with an irregular outline, the waters in flowing off carried down the loosened materials, and, in different extent and degree, left bare the stony masses.

XI. But it is upon reflection obvious, and the geological evidences of the fact are numerous and decisive, that the ebullient action of the fire-melted liquid below is likely to produce undulations of the surface, and therefore, in some places, to cause diminutions of density, and perhaps vast caverns filled with aeriform fluids. The crust of the earth, over these less solid spots, will be weakened, and a sinking down will take place through, it may most probably be, a large area of the surface. These subsidences may, in some rare cases, be rapid : but generally they, as the elevations, will be extremely slow.

XII. Now I fear that I must put to trial the patience of my friends in an attempt to describe in words a complicated series of operations, which, by arguing from effect to cause, we have sufficient reason to believe must often have taken place, in ways equivalent to what I request you to conceive. But this is not the forming of an imag-