violent revolutions, capable of so influencing organic life (if probable at all), require, according to what is known of the earth and planetary system, periods or intervals too great for the mind to comprehend.

Interruptions of the Series of Time.

In certain rocks we find angular fragments, or rolled pebbles, derived by mechanical action from pre-existent and pre-consolidated rocks. The Righi, in Switzerland, is composed of such conglomerate masses; — the red sandstone of Cumberland and Westmorland is full of pieces of the subjacent slaty rocks; — the sands near London are stored with rolled flints from the subjacent chalk. The fragmentary masses, thus imbedded, are often the repositories of organic remains, sometimes of portions of mineral veins, both of anterior date to the rocks now including them. Thus we see proof of the occurrence of *different modes of action* over the same geographical areas, and our belief in the length of time requisite for all these occurrences becomes immoveable.

In general the stratified masses of the earth's crust are placed with their surfaces parallel to each other; from which we know that during their accumulation no violent disturbance of the external parts of our planet happened in those regions to confuse the regularity, and alter the horizontal plane of deposition. But in particular instances this conformity of the strata is departed from, and certain (older) rocks appear inclined at various, often steep, angles, or standing even vertical, while the more recent deposits lie level or nearly so, upon them. What renders this case of disturbed stratification more impressive, with respect to the lapse of time, is the occurrence of positive circumstantial proof of the intervention of mechanical, chemical, or vital agencies of considerable duration between the elevation of the older, and the deposition of the newer strata. Thus in diag. No. 1. the inclined