

The phenomena of the coal-formations have been ably argued by Mr. Murchison, in a series of considerations, which prove both the intensity of action and the long succession of periods that are marked in the structure and alterations of the crust of the earth. "How have the coal-fields been rendered accessible to man's use? Have we not shown that many have been forced to the surface by volcanic action; and that some have assumed a basin shape, in consequence of their margins having been thrown into that form by a number of violent upcasts of the subjacent solid masses, which, wrenched from their original position, now converge towards a common centre?" *Silur. Syst. I. 574.*

Our respected author appears not seldom to fall into the besetting error of controversialists, misapprehension of the opinions which he opposes, or of some part of their relations. For example; he seems to think it a fatal objection to the doctrines generally held by geologists, that the Tertiary Strata "occupy but a small space in the crust of the earth, yet three of four ages have been assigned to them;" that "the whole Tertiary Strata cover but a small portion of the face of our globe, and each of the four sections" [the Eocene, the Miocene, the older Pliocene, and the more recent Pliocene] "can claim but a few patches; yet to these patches a whole age is assigned!" (pp. 19, 20.) On the scale of reason, this is much the kind of argument which infidels employ, when they object to Christianity that it is not universal. Does our objector suppose that topographical extent is a measure of duration? Is it not of the very essence of the case, that these "patches" (which, be it remarked, cover thousands of square miles in Europe and North America) should occupy the situations which, by the laws of nature, belong to them? They consist of the wearings away and washings down of older rocks, derived from the elevations and projections of innumerable eras; and they must of necessity have been received and retained in the intervening hollows. This is one of the striking instances of the Creator's wisdom and goodness; that, by a series of slow operations, effected according to the known laws and methods of physical action, diversified results are brought to pass which are in the highest degree beneficial to the animated tribes, and pre-eminently to the race of man. The very processes are marked with the indications of very long periods of time, which (if I may express my humble opinion) our imaginations are more in danger of unduly contracting than of immoderately extending.

Yet, after all, Dr. Young makes a surrender of the chief position; and therefore all the other parts of the field are fairly debateable without mutual prejudice, however, we may feel convinced that he