

spoils of the land,) which is without ceasing floated down and added to the formations at the bottom, cannot but be astonishing. By careful experiments it has been ascertained, that the Ganges carries into the Bay of Bengal, annually, the average of 355,361,464 tons weight; an amount difficult for our imagination to estimate; but, to bring it to some auxiliary standard for comparison, Mr. Lyell has calculated that it nearly equals the weight of sixty times the greatest pyramid of Egypt.* The base of that pyramid covers an area equal to that of Lincoln's Inn Fields, and its summit is 40 feet higher than the cross of St. Paul's Cathedral. Yet the sea is not sensibly rendered more shallow, and the river is navigable for large ships to Calcutta. So the Thames and the Severn have been bearing down their sediment for near six thousand years: but how far are their estuaries from being silted up? And, how many thousand years longer will be required to produce that result; should it not be accelerated by a movement from below?

It must, however, be stated, that there is both geological and historical evidence of rapid and even sudden elevations and depressions having taken place, in many parts of the globe; but those occurrences have been comparatively rare, and to a very limited extent.

XXVI. Every stratum is itself a proof that dry land existed contemporaneously, above the level of the waters: for the mineral materials composing strata are the wearings and washings down, coarse and fine, from the surfaces of the exposed land. Thus were produced areas, formed by each kind of the matter brought down, and having their peculiar characters and boundaries.

XXVII. From the mineral characters of those areas,

* Princip. Geol. Vol. I. p. 370, fifth ed. in which striking passage are presented other aids to our conception.