

present advancement of discovery, requires considerable correction,) and his posthumous three volumes on the Attributes of God, as proved and illustrated by the Physical Universe;—I am sure that they will not blame me. Yet it must not be forgotten that he did not live to acquire a proper knowledge of Palæontology.

3. There is a fact which may be made intelligible to an un-instructed person, or even to a child. In those stratified rocks which are of a sandy constitution, it is common to find pebbles, from the size of coriander-seeds to that of birds' eggs, and much larger. These bear demonstrative evidence of having been derived from more ancient rocks, by fracture and detachment, long rolling on a hard bottom under water, dispersed through the loose sand of a deposit, subsiding to the lower part if a tolerably free motion were permitted, and then consolidated. To this portion of a sandy formation, whose parts are thus agglutinated, the appropriate term *conglomerate* is given. Let the Old Red Sandstone be our example.—In many places the upper part of this vast formation is of a closer grain, showing that it was produced by the last and finest deposits of clayey and sandy mud, tinged, as the whole is, with oxides and carbonates of iron, usually red but often of other hues. But frequently the lower portions, sometimes dispersed heaps, and sometimes the entire formation, consists of vast masses of conglomerate, the pebbles being composed of quartz, granite, or some other of the earliest kinds; and thus showing the previous rocks, from whose destruction they have been composed. Let any person first acquire a conception of the extent of this formation, and of its depth, often many hundreds and sometimes two or three thousand feet; (but such a conception can scarcely be formed without actual inspection;*) then let him attempt to follow out the processes which the clearest evidences of our senses show to have taken place: and, let him be reluctant and skeptical to the utmost that he can, he cannot avoid the impression that ages innumerable must have rolled over the world, in the making of this single formation.

4. In the texture of the early stratified rocks, to which the abundant evidence leads us to ascribe a vast antiquity, pieces of granitic rocks are often found, of such forms as show that they had been broken off from the crystallized formations: for, if they had come from the injection of newly-formed granite, the marks of elevation and intrusion in a fused state would not have been wanting. Hence, it is plain that the parent rock, in any case, existed before the formation of the derivative.

* The most convenient localities for us are in Herefordshire and Monmouthshire.