this stone was in a state of loose sand at the bottom of the sea. Laminated sandstones are also often disposed in minute undulations, resembling those formed by the ripple of agitated water upon sand.*

The same causes, which have so commonly preserved these undulations, would equally preserve any impressions that might happen to have been made on beds of sand, by the feet of animals; the only essential condition of such preservation being, that they should have become covered with a further deposit of earthy matter, before they were obliterated by any succeeding agitations of the water.

The nature of the impressions in Dumfries-

* In 1831, Mr. G. P. Scrope, after visiting the quarries of Dumfries, found rippled markings, and abundant foot tracks of small animals on the Forest marble beds north of Bath. These were probably tracks of Crustacea.—See Phil. Mag. May, 1831, p. 376.

We find on the surface of slabs both of the calcareous grit, and Stonesfield slate, near Oxford, and on sandstones of the Wealden formation, in Sussex and Dorsetshire, perfectly preserved and petrified castings of marine worms, at the upper extremity of holes bored by them in the sand, while it was yet soft at the bottom of the water; and within the sandstones, traces of tubular holes in which the worms resided. The preservation of these tubes and castings shews the very quiet condition of the bottom, and the gentle action of the water, which brought the materials that covered them over, without disturbing them.

Cases of this kind add to the probability of the preservation of footsteps of Tortoises on the Red sandstone, and also afford proof of the alternation of intervals of repose with periods of violence, during the destructive processes by which derivative strata were formed.