

trunks of large coniferous trees, converted to flint, and by stumps of these trees standing erect with their roots still fixed in their native soil. (See Pl. 57, Fig. 1.)*

Pl. 57, Fig. 3, exhibits similar stumps of trees rooted in their native mould, in the Cliff immediately east of Lulworth Cove. Here the strata have been elevated nearly to an angle of 45° , and the stumps still retain the unnatural inclination into which they have been thrown by this elevation.

The facts represented in these three last figures are fully described and explained in the paper above referred to; they prove that plants belonging to a family that is now confined to the warmer regions of the earth, were at a former period, natives of the southern coast of England.†

* The sketch, Pl. 57, Fig. 2, represents a triple series of circular undulations, marked in the stone, which surrounds a single stump, rooted in the dirt-bed in the Isle of Portland. This very curious disposition has apparently resulted from undulations, produced by winds, blowing at different times in different directions on the surface of the shallow fresh water, from the sediments of which the matter of this stratum was supplied, while the top of this stem stood above the surface of the water. See Geol. Trans. Lond. N. S. vol. iv. p. 17.

† The structure of this district affords also a good example of the proofs which Geology discloses, of alternate elevations and submersions of the strata, sometimes gradually, and sometimes violently, during the formation of the crust of our planet.

First. We have evidence of the rise of the Portland stone, till it reached the surface of the sea wherein it was formed.

Secondly. This surface became for a time, dry land, covered by