

that their vertical position has, by pressure, induced a very considerable expansion; indeed, considering the loose state of the sandy beds, this can hardly have failed to be the case.

(g) *Inclination.* Sections of the beds of this formation appear in the cliffs between Lymington and Poole in Dorsetshire, where they lie in a horizontal direction. (G. T. v. 2. p. 189.) But on the opposite shore of the Isle of Wight in Alum bay, they are in a vertical position, the probable cause of this remarkable circumstance will be adverted to in treating of the nearly vertical chalk of that island. It must however here be observed, that although at the east and west shores of the Isle, viz. at White cliff and Alum bay, all the beds of this formation appear to be vertical, yet in the more central parts they differ, for Newport in the Isle of Wight is on horizontal strata. The organic remains which have been found in perforating these strata to the depth of 200 feet, are the same as those found in the vertical marls and clays of Alum bay. (W. p. 178.)

The dip of the beds at Chinting near Newhaven on the coast of Sussex, is conformable with that of the chalk on which they lie, viz. about 20° to the west. (G. T. vol. iv. p. 295.) That of the beds traversed by the Redriffe Tunnel is 1. in 30. south. (C).

SECTION II.

Local details.

Although the forementioned facts may be considered as offering a general view of the principal phænomena of the Plastic clay formation of England, it will be impossible to do that justice which the importance of the subject demands, without entering considerably at large into the particulars which we have been furnished by various observers; especially since they will serve to direct the attention of the traveller to the places best adapted for observation, which are, near Reading in Berkshire, near London, at Newhaven on the coast of Sussex, near Poole in Dorsetshire, and in the Isle of Wight.

(a) *Near Reading.*

The Catsgrove brick kilns, distant about half a mile from the town of Reading, on the south-west, where the works have been carried on for more than a century, at this time present the following section, beginning from the chalk on which the beds constituting the plastic clay formation rest. (G. T. vol. iv. p. 278.)