

sandstone at Studland point on the opposite coast of Dorsetshire. The clays also are of various colours and degrees of purity, and are sometimes laminated: thus we have fire clay, brick clay, pipe clay and potters' clay,* the two former at Cheam in Surrey and at Poole in Dorsetshire, the second also at Reading in Berkshire; the two latter near Poole and in the Isle of Wight: an argillaceous rock appears as one of the beds at Newhaven on the coast of Sussex: layers of chalk flint pebbles are found in Alum bay, at Newhaven, and under the clay beneath London. Wood coal occurs in beds in the Isle of Wight, in Dorsetshire, and at Newhaven. Fullers' earth in the beds at Catsgrove near Reading and on the Edgeware road. These particulars will serve to shew the close analogy subsisting between the beds of this formation in England and France.

(b) *Mineral contents.* The mineral contents of these beds do not appear as veins, but are generally intermixed with the clay and sands of which the formation consists. If indeed the coal found in this stratum is to be ranked among its mineral contents, it forms an exception; being uniformly found in layers or beds parallel with the sands and clays above and below it. This coal however, is a very imperfect one, and still bears decided marks of its vegetable origin: nevertheless it seemed to demand at least some notice under the head mineral contents. It will be spoken of more at large at treating of the Organic remains common to this formation.

Pyrites occurs both in the pure white clays of the trough of Poole and the impure beds of the Isle of Wight; in the latter it abounds, and owing to its decomposition alum works formerly existed in Alum bay. (G. Notes.) A thick dark blue clay, very near the vertical chalk of Alum bay, on the north, contains green earth, and nodules of a dark coloured limestone. Selenite and fibrous gypsum occur both in Alum bay and near Newhaven on the coast of Sussex, and mica in the sand of the latter, as well as tabular ironstone.

(c) *Organic remains.* The organic remains of this formation

* Patches of *Plastic clay* are frequently found over the chalk in different places in the south of England; some of these are yellow, and are employed for the common sorts of pottery; but others are white, or greyish white, and are used for finer purposes. The coarser clay is very frequently met with, nor are the finer kinds of very rare occurrence. In the Isle of Wight two species of plastic white clay are worked for the purpose of making tobacco pipes, for which purpose also there is an extensive quarry, situated in several beds of white clay, on the banks of Poole harbour in Dorsetshire, and about two miles west of that place. A similar clay, which is used for making gallipots, is dug from the banks of the Medway. A fine light ash-coloured, nearly white clay, which is employed in the pottery works, is also dug at Cheam, near Epsom in Surrey. (G. T. vol. i. p. 341.)