

been carried away, and used as paving, for which it answers very well, being of so regular a thickness, as not to require any preparation.'

The blue marle of the above description corresponds with the formation denominated in this work the Weald clay.

The junction on the east of Freshwater bay presents an exact repetition of the above.

Advancing about a mile south-east of this junction, Mr. Webster observed the argillaceous strata on which the ferruginous sandstone reposes, make their appearance near Brook point. His account of these is very interesting.

'The ferruginous sand cliffs continued some way farther, preserving nearly the same inclination. But the strata succeeding to it, and which dipped with a gradually decreasing angle, until they were at last nearly horizontal near Brook, were very different. They consisted of a succession of beautifully coloured plastic clays alternating with beds of red and yellow sand, sandstone, slate clay with fossil shells, and also limestone containing veins of calcareous spar.

At Brook point the cliffs interested me much. They were about thirty feet in height; and were composed chiefly of clay resting upon a bed of soft sandstone, which contained a considerable quantity of sulphur, arising from the decomposition of pyrites.

At this place I observed many masses of a coaly blackness, bearing the exact form and resemblance of trunks of trees that had been charred, lying on the beach, and imbedded in the clay cliffs, and also in the rock.

In some parts, the ligneous fibre was still evident. In other parts, the wood had been converted into a substance much resembling jet; its blackness being intense, its cross fracture conchoidal, and its lustre very great. Other parts of the trees were entirely penetrated by pyrites: and considerable groups of crystals of this substance were frequently attached to the outside.

They were imbedded in clay of various colours, white, grey, yellow and red; and lay in irregular horizontal strata of several inches in thickness, being often pressed flat, by the incumbent weight. Over this stratum of clay, which is about eight or ten feet thick, there is another, of the same depth, of sand and gravel highly ferruginous; and the water which filters from it is strongly impregnated with sulphate of iron.

On lifting up some of the sea weeds which grew upon the shore between high and low water mark, I was surprised to find almost all the rocks below them composed of petrified trees, which still retained their original forms. They were of