

near Whitby contain an impure or stony jet, termed anthracite. In the front of the cliff, on the north-west side of Haiburn Wyke, the stump of a tree was observed in an erect position, about three feet high, and fifteen inches in diameter; the roots were in a bed of shale, in the state of coarse jet, while the trunk, which extended into the sandstone, consisted in part of silicified wood, and in part of wood in a state of decay, with a sooty aspect.*

Thin seams and layers, and nodular masses, as well as regular coal-fields of lignite, occur in the tertiary formations. At Castle Hill, near Newhaven, in Sussex, (*Wond.* p. 225. *Geol. S. E.* p. 55.) a layer of lignite, a few inches thick, resembling the surturbrand of Iceland, is interposed between strata of red marl, in which are carbonized leaves of dicotyledonous trees.

At Alum Bay in the Isle of Wight, beds of lignite are seen between the vertical gravel and sand, of that interesting locality.

The Wealden formation contains, principally in its middle division of strata, thin layers of lignite, which alternate with finely laminated micaceous sandstones, marls, and clays, abounding in minute carbonized fragments of leaves, fresh-water shells, and crustacea. This series so remarkably exhibits

* Geological Survey of the Yorkshire Coast; by Rev. G. Young; 1828; p. 197.