

natural relations to those of the existing Floras, it will be requisite to notice those vast accumulations of vegetable matter, which occur in the strata, in various states of carbonization.

SUBMERGED FORESTS. PEAT, LIGNITE. — The phenomenon of extensive tracts of marsh-land, with layers of prostrate trees of all ages, lying but a few feet beneath the common alluvial soil, is of frequent occurrence, both inland, and in many places along the shores of our island. (*Geol. S. E.* p. 18. *Wond.* p. 49.) These submerged forests are often situated below the level of the sea, and they afford unquestionable proof of subsidences of the land. The trees are of the kinds indigenous to the districts in which they occur; and leaves and seeds of the hazel, beech, elm, &c. are often preserved in the silt in which the prostrate forests are engulfed. On the Sussex coast there are various accumulations of this kind, as at Bexhill, Pevensey levels, Felpham, &c.

The wood in these cases has undergone no change but that of being dyed black, from an impregnation of iron; and many trunks are in so sound a state as to be employed in building. The oak timbers of the Royal George, lately raised up from off Portsmouth, after being immersed in silt about sixty years, closely resembled in colour and texture the sound wood of the submerged forests. Associated with these buried vegetables, bones of deer, and swine, are occasionally met with, and the canoes