

usual height was from six to eight feet, but one which was more than a hundred feet above the beach, and which I could not approach to measure, seemed to be twenty-five feet high, and four feet in diameter, with a considerable bulge at the base. They all appear to be of one species, the rugosities on the surface producing the effect of a rudely-fluted column, and they were placed very accurately at right angles to the planes of stratification. I found numerous flattened trunks of large *Sigillariæ* with their flutings and leaf-scars in the shales, but none of them resembled the erect trees with their irregularly furrowed exterior.

*Stigmaria* are abundant in the argillaceous sandstones of these coal-measures, often with their leaves attached, and spreading regularly in all directions from the stem. It commonly happens here, as in Europe, that, when this plant occurs in sandstone, none of its leaf-like processes (or rootlets?) are attached, but I saw one remarkable exception in strata of micaceous sandstone, between the site of the upright tree represented in *fig. 19* and those given in *fig. 21*. The stem was about four inches thick (see *fig. 20*), and it traversed obliquely several layers of fine white micaceous sandstone two feet in vertical thickness. Mr. Binney of Manchester seems now to have proved that these *Stigmaria* are really the roots of *Sigillaria*, by finding them actually proceeding from the bottoms or stools of the trunks of *Sigillariæ* which occur erect in the British coal-measures. We may therefore conclude that the dome-shaped mass represented by Messrs. Lindley and Hutton in their *Fossil Flora*, pl. 31, and figured by Dr. Buckland in