but it is probable that many of the leaves so abundant in the shales belong to them. The stems vary from a few inches to three feet in circumference, and specimens have been discovered that indicate a length of sixty feet.

The stems often escape compression, and stand perpendicularly, intersecting the horizontal strata, sometimes having roots proceeding from the base. They are generally surrounded by an envelope, an inch in thickness, of fine, crystalline, bituminous coal. The longitudinal plaitings, which are the characteristic marks of the sigillariæ, are commonly indistinct at the base. A specimen figured in the beautiful and highly interesting work of Dr. Lindley and Mr. Hutton,* was ten feet high (Tab. 125), and two feet in diameter at the base. Its roots were in shale, immediately above a bed of coal, and the trunk extended through several strata of shale and sandstone. The sigillariæ were evidently hollow, like the reed, and with but little substance, as is proved by the extreme thinness of the specimens, which lie in a horizontal position, and are compressed. The upright stems consist entirely of sandstone, within the envelope of coal. Nearly fifty species are enumerated by M. Brongniart. The original trees appear to have been closely related to the arborescent ferns, but their leaves were small, and differently disposed than in any existing species.

* The Fossil Flora of Great Britain.