When specimens of Stigmariæ are observed in the under-clay, to which stratum they are principally confined, long, tapering, subcylindrical fibres are seen attached to the tubercles of the pits with which the surface is covered; and these processes are often several feet in length; their form and mode of attachment are shown in *Lign.* 27. Instances occur in which many of these stems spring from a common centre, of a dome-like form, from whence they radiate in every direction (*Bd.* plate 56, fig. 8.), and the main branches divide and subdivide till they are lost in the surrounding rock.\*

The situation in which the Stigmariæ invariably occur, namely, in the under-clay beneath the coal the establishment of this important fact by Mr. Logan, not only in the principal coal measures of England, but also in Pennsylvania—and the hypothesis based on the supposed aquatic nature of these plants, have already been laid before the reader. But the distinguished author of the elaborate Memoir on the Sigillariæ, of which an abstract has been given, from a careful examination of the internal structure of the Stigmariæ, contended that they were not aquatic plants, but the roots of Sigillariæ; the central axis, or cylinder, (*Lign.* 27, fig. 1. a.) bearing a close analogy in organization to the stems of those trees. The annexed sketch (*Lign.* 28.),

<sup>\*</sup> A very interesting description of these plants is given in Foss. Flor.