

The impressions, or scars, which formed the articulations of leaves on the longitudinal flutings of the trunks of *Sigillariæ*, are disposed in vertical rows on the centre of each fluting from the top to the bottom of the trunk. Each of these scars marks the place from which a leaf has fallen of, and exhibits usually two apertures, by which bundles of vessels passed through the bark to connect the leaves with the axis of the tree. No leaf has yet been found attached to any of these trunks; we are therefore left entirely to conjecture as to what their nature may have been. This non-occurrence of a single leaf upon any one of the many thousand trunks that have come under observation, leads us to infer that every leaf was separated from its articulation, and that many of them perhaps, like the fleshy interior of the stems, had undergone decomposition, during the interval in which they were floating between their place of growth, and that of their final submersion.

M. Ad. Brongniart enumerates forty-two species of *Sigillaria*, and considers them to have been nearly allied to arborescent Ferns, with leaves very small in proportion to the size of the stems, and differently disposed from those of any living Ferns. He would refer to these stems many of the numerous fern leaves of unknown species, which resemble those of existing arborescent genera of this family. Lindley and Hutton shew strong reasons for considering that *Sigillariæ*