there is, however, one remarkable exception. A frequent fossil in the Derbyshire strata is a compressed sub-cylindrical stem, having the surface spirally studded with tubercles, and containing internally an imbricated body, or core. The late Mr. Martin * figured several illustrative examples of this plant, under the name *phytolithus imbricatus:* but its true characters were unknown, till Dr. Lindley and Mr. Hutton discovered specimens, in which the stems were united to a trunk.† From the observations of these naturalists, it appears that the plant had a central trunk, of a compressed sub-conical form, the substance of which, from the corrugated surface in the fossils, is supposed to have been pulpy or soft. From this central body proceeded from ten to fifteen branches, disposed horizontally, and dividing at unequal distances; when perfect, it is computed they would have extended twenty or thirty feet. The fossil stems are fragments of these branches, the tubercles being the bases of cylindrical, succulent leaves, many feet in length; the internal axis of which I have spoken, like that of the *clathraria Lyellii* (page 374), being the woody pith or core. The external hollow cylinder is entirely composed of spiral vessels. The stigmaria was probably an aquatic plant, inhabiting swamps or lakes, and

* Petrifacata Derbiensia.

† Fossil Flora of Great Britain, vol. i. page 93.