

for no satisfactory connexion has yet been established between their stems, and the foliage, and seed-vessels, with which they are collocated.

STIGMARIA.—This extended notice of the structure of the Sigillariæ, will materially assist in the illustration of the nature of an equally common vegetable fossil, known in every coal-mine by the name of spotted-stem, or *Stigmaria*. A reference to *Bd.* p. 476. *Ly.* II. p. 119. *Wond.* p. 660. will put the reader in possession of all that was known and conjectured upon this subject, when those works respectively appeared. In our remarks on the situation invariably occupied by these fossils, we found it necessary to anticipate the announcement of their real nature, but we reserved for this place a full elucidation of their organization.

The *Stigmaria*, or *Variolæ*, are cylindrical bodies, varying from a few inches to several feet in length, and are often as large round as the arm; their surface being covered with numerous pits or areolæ, which are disposed in quincunx order. These markings are oval or circular, and have a small elevation, or tubercle, in the middle of each depression. When broken across, a small cylindrical body, or core, is found to extend in a longitudinal direction throughout the stem, like a medullary column. This core seldom occupies the centre or axis of the stem, but is commonly situated near to one side, and opposite to a groove, or channel, on