

- Fig. 1^a.—One of the cicatrices of the petioles, natural size.
2. — An inner axis, showing the branched character of the original. This specimen is three and a half feet long.
3. — Two portions of an internal axis which fit together; the lower is convex at the line of junction, the upper concave; a lateral opening is left when they are united, as shown at 3^a, which indicates a *floral* axis, or pannicle, as seen by the transverse direction of the fibres in the lower piece of fig. 3.
- 3^b.—The remains of a zone of vascular tissue attached to the internal axis.
4. — A small nut, or fruit (*Carpolithes Mantelli*, *Ad. Br.*), often found with the stems of the *Clathrariæ*, and supposed to belong to those plants.

tion of the stem, in adult specimens, will sometimes separate from its central axis, and is then a hollow cylinder of stone (*Foss. Til. For.* pl. 2.) as shown in *Lign.* 44, fig. 1: while the central axis is solid, and has its surface strongly marked with reticulated, interrupted, longitudinal ridges: this surface has generally adherent to it patches of vascular tissue, (*Lign.* 44, 3^b), but in so friable and confused a state, that numerous microscopical examinations have thrown no satisfactory light upon its structure. Nor has my investigation of polished sections of the stems been more successful; the only trace of organization detected being cellular tissue, filled up with calcareous spar. In the young plants, the internal axis cannot be distinguished from the outer cortical cylinder, and slices of these stems have only shown confused meshes of cells. Fig. 2 represents a branched specimen of the solid axis. On the clay, and grit, in which the stems were imbedded,