*from without*). Both possess vascular tissue, but so differently arranged in the two classes, as to constitute distinctive characters which are seldom obliterated, although what was once a flexible stem, is now a mass of flint.

ENDOGENOUS STEMS.—As the seeds of the plants belonging to this division have but one cotyledon, or *seed-lobe*, as the lily, they are also termed monocotyledonous; the reader therefore must remember that these terms are synonymous. These stems consist of an uniform mass of cellular tissue, in which bundles of vascular or woody fibre are imbedded; a transverse section presents a surface dotted over with spots, produced by the division of these groups of vessels, pretty uniformly distributed, but more densely arranged towards the circumference (*Lign.* 1, fig. 4.). A slice of cane affords an illustration of this structure.

The increase of these stems is effected by the formation of new cells and bundles of vessels in the central axis, which force their way among the old tissue, and occasion the condensation of the latter towards the outer edge. These plants have neither pith, concentric circles of woody fibre, nor true bark; negative characters of the highest importance.

EXOGENOUS STEMS.—The seeds having two cotyledons, or seed-lobes, as the bean; this class is also