

arranged in the grand classes of the vegetable kingdom. In the most simple group, the *cellulares*, called also the *acotyledones*, from the absence of *cotyledons*, or seed-lobes, the tissue is wholly cellular, the cells being nearly of equal size and consistence; mosses, lichens, sea-weeds, fungi, &c. are examples. These plants have no flowers, and hence are named *cryptogamic*. The vegetables belonging to the other great class are termed *vasculares*, from their cellular tissue being more complex, and assuming the structure of tubes and vessels; and *phanerogamic*, from their bearing flowers. Their tissue is composed of cells of various sizes and forms, and of straight and spiral tubes. This class is subdivided into two families, viz. the *monocotyledonous*, so named from the seed having but one fleshy lobe, or *cotyledon* (Tab. 122, fig. 5), as the onion, lily, &c.; and also called *endogenæ* (*from within*), because increase takes place from the innermost part of the stem; and the *dicotyledonous*, from the seeds having two lobes (Tab. 122, fig. 4), as the bean, almond, &c.; these are also termed *exogenous* (*from without*), the new matter being added externally to the old layers, and thus forming annual circles of increase, as in the oak, elm, &c. (Tab. 122, fig. 8). The section of the monocotyledonous stems (as the cane, palm, &c.) present therefore, openings of tubes, which are condensed towards the outer surface (Tab. 122, fig. 7); while the dicotyledonous exhibit annular lines of growth