

plants, which were formerly but little observed, have in consequence of the careful investigations of recent times been proved to present such a great variety of forms, and such a marked difference in their coarser and finer structure, that we must distinguish no less than fourteen different classes of them; whereas the number of classes of flowering plants, or *Phanerogamia*, may be limited to four. However, these *eighteen classes of the vegetable kingdom* can again be naturally grouped in such a manner that we are able to distinguish in all *six main divisions or branches* of the vegetable kingdom. Two of these six branches belong to the flowering, and four to the flowerless plants. The table on page 82 shows how the eighteen classes are distributed among the six branches, and how these again fall under the *sub-kingdoms* of the vegetable kingdom.

The one sub-kingdom of the *Cryptogamia* may now be naturally divided into *two divisions*, or sub-kingdoms, differing very essentially in their internal structure and in their external form, namely, the *Thallus plants* and the *Prothallus plants*. The group of *Thallus plants* comprises the two large branches of Tangles, or Algæ, which live in water, and the Thread-plants, or Inophytes (Lichens and Fungi), which grow on land, upon stones, bark of trees, upon decaying bodies, etc. The group of *Prothallus plants*, on the other hand, comprises the two branches of Mosses and Ferns, containing a great variety of forms.

All *Thallus plants*, or *Thallophytes*, can be directly recognized from the fact that the two morphological fundamental organs of all other plants, stem and leaves, cannot be distinguished in their structure. The complete body of all Algæ and of all Thread-plants is a mass composed of simple