

CHAPTER IV.

FOSSIL VEGETABLES.

THE remains of the vegetable kingdom are presented to the notice of the geologist, in various conditions; in some instances but little changed in their aspect, as in the recent accumulations of mud and silt, at the bottoms of lakes and rivers, and in morasses, and peat bogs; in tufaceous incrustations, as decayed wood, with the imprints of the leaves and stems, preserved on the solid masses of concretionary, or crystalline limestone.

In the ancient deposits, vegetables are found in two different states. In the one their substance is completely permeated by mineral matter; it may be calcareous (*lime*), siliceous (*flint*), ferruginous (*iron*), or pyritous (*sulphuret of iron*); and yet both the external characters, and the internal structure be preserved. Such are the fossil trees of the Isle of Portland, fragments of which so closely resemble decayed wood, as to deceive the casual observer, until by close examination of their texture and substance he finds that they possess the weight