

science which treats of vegetable organization, and we shall thus be enabled to restore anew the forests of extinct palms and tree-ferns, the groves of liliaceæ, and all the luxuriant tropical vegetation which flourished in the carboniferous epoch of our globe. I must, however, restrict myself to a brief enunciation of a few leading botanical principles. The works of M. Adolphe Brongniart,* and of Dr. Lindley and Mr. Hutton,† should be consulted by those who would pursue this most attractive department of natural history.‡

15. ORGANIZATION OF VEGETABLES.—In the previous discourse, the complex organization of even the most minute forms of animal existence was remarked; the structure of vegetables, on the contrary, presents a remarkable simplicity. While in animals every separate function is effected by an organ of peculiar construction, in plants a few tissues, variously modified, constitute the mechanism by which all the vegetable functions are performed. The section of any living plant shows that its intimate structure consists of a solid spongy texture, made up of cells or vessels, containing fluids, or other matter. This organization is differently

* *Histoire des Végétaux Fossiles, ou Recherches Botaniques et Géologiques, &c.* par M. Adolphe Brongniart. 1 vol. 4to. with numerous plates.

† *The Fossil Flora of Great Britain*, by Dr. Lindley and W. Hutton, Esq. 8vo.

‡ See also Henslow's *Principles of Physiological Botany*; a very instructive and delightful volume.