

they contain, as I have previously remarked, a profusion of fossil plants. The vegetable remains in the coal strata are almost universally in a carbonized state; but the leaves sometimes possess such a degree of tenacity and elasticity as to be separable from the stone. The leaves and seed-vessels which occur in the iron-stone nodules have, in many instances, undergone a metallic impregnation, as is exemplified in this splendid series of specimens from Coalbrook Dale, for which I am indebted to John Pritchard, Esq., of Brosely. Brilliant sulphuret of iron, or pyrites, in some examples, permeates the entire vegetable structure; in others, the stems and leaflets are replaced by white hydrate, or sulphate of alumina; and in many by crystals of galena, or sulphuret of lead, and of blende.* In the sandstones, the vegetable stems have generally a carbonaceous crust, and their structure is sometimes found in a calcareous or silicious state.†

The coal plants, which have been accurately determined, amount to upwards of three hundred; of these, two-thirds are related to the arborescent ferns, and the higher tribes of the cryptogamia; about ten species to the flowering monocotyledonous trees; as many to the coniferæ, and cactaceæ; and numerous species still remain undescribed. I will now

* Sulphuret of zinc—*blende* is a German term, signifying glistening.

† *Vide* Organic Remains of a Former World, vol. i.