CONIFEROUS WOOD AND TREES.

Stems, branches, and large masses of drifted wood, that under the microscope exhibit that peculiar structure which (as we have explained, p. 71.) prove the originals to have belonged to the family of Coniferæ, are among the most abundant vegetable remains of the upper secondary and tertiary deposits. The investigations of Mr. Nicol, and Mr. Witham (Obs. on Foss. Veg. Edinburgh, 1831), first demonstrated the existence of Coniferæ in the Coal, and their remains have been found in every formation of later origin. The recent vegetables arranged in this family are all arborescent, dividing into numerous branches, which are disposed in most genera with considerable regularity. Transverse sections of the stems exhibit annular lines of growth, and in the vertical direction the sides of the vessels are studded with little ducts (see Lign. 1.), which are readily seen by the aid of the microscope; many of the fossil species resemble the recent. Polished slices of Coniferæ, from the Carboniferous strata and Lias, are figured by Mr. Witham (Obs. Foss. Veg. Plates III. IV. and V.-Bd. p. 486.), who describes a trunk of an Araucaria, or Norfolk Island pine, nearly forty feet long, in Craigleith quarry, near Edinburgh, at a depth of 136 feet (Ly. II. p. 138.). The greater part of the fossil coniferous wood found in the older deposits of Great Britain is of this type, which is characterised