trunk in different directions. The flabelliform palms preserve their scales at the inferior extremity of the trunk only, but lose them as they increase in age; and the stem is entirely bare, from the middle to the superior extremity. But in the lepidodendron, the scales follow a decreasing proportion from the base of the trunk to the extreme branches.* The lepidodendra have contributed more than all the other vegetables to the formation of coal. Their trunks present the same structure and mode of ramification as the lycopodiaceæ, or club-mosses; and bear similar leaves and fruits. But while the recent species are small creeping plants, clothed with diminutive foliage, the lepidodendra attained a height of eighty feet; the base of their trunks being more than three feet in diameter, and their leaves in some instances nearly two feet in length. They were in fact arborescent club-mosses, comparable in size to the largest pines, and formed extensive forests in the carboniferous epoch, beneath whose shade flourished the lesser ferns, the remains of which are now so abundant in the coal-shales. Dr. Lindley and Mr. Hutton describe these plants as constituting a gradation from the flowering to the flowerless tribes.

37. Fossil club-moss (Tab. 127).—In a specimen from the Tyrol, with the precise locality of

* "Faut-il ranger ce genre d'arbres parmi un groupe de végétaux, qui aujourd'hui est indigène seulement entre les tropiques, et dont la végétation exige un climat plus doux et une température plus élevée?"—*Sternberg*, Flora zur Vorwelt.