## LEAVES AND CONES IN VERTICAL ROWS. 475

the trunk and scars of some of these extraordinary Coniferæ.

Among existing vegetables, there are only a feiv succulent plants which present a similar disposition of leaves, one exactly above another in parallel rows; but in the fossil Flora of the Coal
2. Favularia. Stem furrowed. Scars of leaves small, square, as broad as the ridges of the stem.
3. Megaphyton. Stem not furrowed, dotted. Scars of leaves very large, of a horse shoe figure, much narrower than the ridges.
4. Bothrodendron. Stem not furrowed, covered with dots. Scars of cones, obliquely oval.
5. Ulodendron. Stem not furrowed, covered with rhomboidal marks. Scars of cones circular.
In the three first gencra of this group, the scars appear to have given origin to leaves; in the two latter they indicate the insertion of large cones.

In the genus Favularia (Pl. 56, Fig. 7) the trunk was entirely covered with a mass of densely imbricated foliage, the bases of the leaves are nearly square, and the rows of leaves separated by intermediate grooves; whilst in Sigillaria the leaves were placed more lonsely, and at various intervals in various species. (Foss. Flora, Pl. 73. 74. 75).

In the genus Megaphyton the stem is not furrowed, and the leaf scars are very large, and resemble the form of horse shoes disposed in two vertical rows, one on each side of the trunk. The minor impressions resembling horse shoes, in the middle of these scars, appear to inclicate the figure of the woody system of the leaf stalk. (Foss. Flora, Pl. 116, 117.)
In the genus Bothrodendron (Foss. Flora, Pl. 80, 81) and the genus Ulodendron, (Foss. Flora, Pl. 5. 6.) the stems are marked with deep oval or circular concavities, which appear to have been made by the bases of large cones. These cavities are ranged in two vertical rows, on opposite sides of the trunk, and in some species are nearly five inches in diameter. (Pl. 56. figs. 3. 4. 5. 6.)

