

Thus, we see that our fossil Cycadites are closely allied by many remarkable characters of structure, to existing Cycadeæ.

1. By the internal structure of the trunk, containing a radiating circle, or circles, of woody fibre, embedded in cellular tissue. 2. By the structure of their outer case, composed of persistent bases of petioles, in place of a bark; and by all the minute details in the internal organization of each Petiole. 3. By their mode of increase by Buds protruded from germs in the Axillæ of the Petioles.

However remote may have been the time when

plates, resembling the double woody circle in the mature trunk, Pl. 61, 1, B, b. But in Pl. 61, Fig. 2, the laminated circle within the embryo trunk near d, is less distinctly double, as might be expected in so young a state.

At Pl. 62, Fig. 3, d, and d', we see magnified representations of a portion of the embryo circle within the Bud, Pl. 61, Fig. 3, 'd. These woody circles within the buds, are placed between an exterior circle of cellular tissue, interspersed with gum vessels, and a central mass of the same tissue, as in the mature stems.

On the right of the lower bud, Pl. 61, Fig. 3, above b, and in the magnified representation of the same at Pl. 62, Fig. 3, e, we have portions of a small, imperfect laminated circle. Similar imperfect circles occur also near the margin of the sections, Pl. 61, Figs. 2, 3, at e, e', e''; these may be imperfectly developed Buds, crowded like the small Buds near the base of the living *Cycas*, Pl. 58: or they may have resulted from the confluence of the bundles of vessels, in the Bases of leaves, forced together by pressure, connected with a diminution or decay of their cellular substance. The normal position of these bundles of vessels is seen magnified in Pl. 62, Fig. 3. c. and in nearly all the Sections of Bases of petioles in Pl. 61, Fig. 2.