

nearly always polygonal, with prominent corners, and usually from these arise thorns or branched spines which are regularly disposed. Regarding this disposition we may distinguish three cases: A, the spines lie in the sagittal plane and form a single row, arising from the median edge; B, the spines lie on both sides of the latter and form two parallel rows, arising from the two lateral edges; C, the spines represent a combination of A and B, and are disposed in three rows, two paired rows arising from the two lateral edges, and an odd middle row between them, arising from the median edge. The spines are simple, without branches, in *Archicircus* and *Zygocircus*; more or less branched in *Lithocircus* and *Dendrocircus*. The branches are often richly ramified or arborescent, and exhibit great variety in size, special form, and direction (compare Pl. 81).

The number and disposition of the spines or groups of spines are usually constant, and may be employed in the further progress of our knowledge, to distinguish a number of genera and subgenera. Very commonly (perhaps in the majority of the Stephanida) we find six groups of spines, an apical group on the upper rod of the sagittal ring, a basal group on the lower rod (on the porochora of the central capsule), two ventral groups on the anterior rod, and two dorsal groups on the posterior rod. In other species we find four or eight groups instead of six, and sometimes a larger number.

The most important of these apophyses of the ring are the basal spines, arising from its basal pole, where the porochora of the central capsule rests upon it. They are often much larger and more branched than the other spines, and attain a peculiar morphological value in the small subfamily Cortinida. Here we find three or four regularly disposed "basal spines," which may be compared to the typical "basal feet" of the *Cyrtellaria*, appearing in the majority of *Spyroidea* and *Cyrtoidea*. *Cortina*, one of the most important NASELLARIA, bears three typical divergent feet on the base of the simple ring, two paired anterior or "pectoral feet," and an odd posterior or "caudal foot." The latter appears as a direct basal prolongation of the dorsal rod of the ring, and is opposed to an upper prolongation of the same, which corresponds to the "apical horn" of the *Cyrtellaria* (Pl. 97, figs. 1-3). As already explained above, these three basal feet of *Cortina* possess the highest phylogenetic value, since they may also be compared with the three primary radial spines of the *Plectoidea*, and so connect the *Cyrtellaria* and the *Plectellaria*. *Stephanium* differs from *Cortina* in the possession of four basal feet, an odd anterior or "sternal foot" being added to the three typical feet of the latter (Pl. 92, figs. 20, 21). Some forms of *Plectoidea* (*Plagoniscus*, *Plectaniscus*, &c.) seem to be nearly related to these Cortinida, and may be easily transformed into them by development of a complete ring, embracing the central capsule. They seem to demonstrate the near affinity of all these triradiate NASELLARIA (Pl. 91, figs. 4, 5, 9, 10).