

and Cyrtoidæa. Therefore we encounter here for the first time that characteristic "cortinar structure" which is complete in *Cortina* and *Cortiniscus* (Pl. 92, figs. 11-13, 21), and which may be regarded as the strongest argument for a close relationship, or even for a common monophyletic origin of all NASSELLARIA.

The four spines, which we regard therefore as "cortinar spines," exhibit a twofold kind of central junction. In the simpler case they are united in a common central point, on which rests the porochora of the central capsule (*Plagoniscus* and *Plectaniscus*, Pl. 91, figs. 4, 9). These forms are nearer to *Cortina*, and may be derived immediately from *Tetraplagia* and *Tetraplecta* by differentiation of the four equal spines. In the other case the four cortinar spines are separated in pairs, diverging from the two poles of a short horizontal common "central rod" (*Plagiocarpa* and *Periplecta*, Pl. 91, figs. 5, 10). These forms may be compared with the spicula of some Beloidea and derived from *Plagonidium*; but their basal central rod may be compared again with the basal part of the sagittal ring of *Cortina*, and this comparison becomes very important in those forms like *Plagiocarpa procortina* (Pl. 91, fig. 5). Here the four spines approach very nearly to those of *Cortina*; the two ventral spines (or pectoral feet) on the anterior pole of the middle rod are equal, but very different from the two dorsal spines, arising from the posterior pole; the lower odd spine of the latter corresponds to the "caudal foot," the upper spine to the "apical horn" of *Cortina* and of the Cyrtellaria. The vertical plane, determined by these two dorsal spines, is the sagittal plane, and two opposite curved branches which lie in this plane (an upper arising from the basal part of the apical spine and a lower arising from the anterior pole of the middle rod) may be regarded as ventral parts of an incomplete sagittal ring. This interesting form and some other similar Tetraplagida may be regarded either as beginning Stephoidea (*Cortina*, with incomplete sagittal ring) or as retrograde Stephoidea (*Cortina*, with partly reduced sagittal ring). In every case they seem to indicate the near relationship between the Stephoidea and Plectoidea.

Another argument for this close relationship may be found in the position of the central capsule in the interesting genus *Plagiocarpa* (Pl. 91, fig. 5). Its basal part (with the porochora) rests upon the common central rod, its ventral face upon the ventral prolongation of the latter, its dorsal face upon the apical horn; its axis lies in the sagittal plane. The three basal spines (the odd caudal and the paired pectoral feet) diverge from its basal pole downwards in the same manner as in the Cortinida, the Zygospyrida and the Monocyrtida.

Less important than those quadriradial Tetraplagida and Tetraplectida, are the sexradial Plectoidea, the Hexaplagida and Hexaplectida. These may be derived immediately from the triradial Plectoidea by prolongation of the three primary original spines (of *Plagiacantha*) over the common central point. Here also two