

as in that family; it is therefore probable that the majority of the *Spyroidea* (if not the whole group) have been derived directly from the Semantida by further development of network from the fenestrated ring of *Clathrocircus*. Whilst in this latter Semantid the two lateral sides of the central capsule remain naked, in the *Spyroidea* they become enclosed and covered by lattice-work, which arises on the right and left from the ring. In some forms, however, as in the *Ceratospyris acuminata* of Hertwig, and in my *Perispyrida*, the frontal ring also of the Coronida and the mitral ring of the Tympanida appear as the initial parts of a complete latticed cephalis.

The basal plate of the cephalis, or the "cortinar plate," the "Basal-Scheibe" of Bütschli, has constantly, according to this author, two pairs of pores, an anterior smaller pair of jugular pores (the pores I of Bütschli) and a posterior larger pair of cardinal pores (the pores II in his description) (compare Pl. 95, figs. 3, 6). This applies to the majority of *Spyroidea*, but by no means to the whole group. We find basal plates with two pores only (Pl. 95, fig. 1), with three pores (figs. 2, 5), with six pores (figs. 4, 7), with nine pores (Pl. 87, fig. 2), &c. The forms with two basal pores may be derived directly from *Semantis* (Pl. 92, figs. 1, 2); the common forms with four pores from *Semantrum* (figs. 3-5); the rarer forms with six pores from *Semantidium* (figs. 6, 7); and the forms with three pores from *Cortiniscus*, &c. In this as well as in other respects the variety of different forms and of developmental variations is far greater than Bütschli (1882, *loc. cit.*) supposed. The bars between the pores of the basal plate possess the same value and the same names as in the Semantida (compare above, p. 954).

The coryphal plate of the cephalis, its upper or apical lattice-plate, does not exhibit such important differences as the opposite basal plate, is far less variable, and is usually pierced by numerous, smaller pores. Some larger pores lie, often in pairs, on the right and left side of the sagittal constriction, and have in some groups a regular form and disposition. Either in the middle of the coryphal plate, or (usually) nearer to its dorsal margin, there arises in the majority of *Spyroidea* an apical horn, directed either vertically or more or less obliquely backwards. In many *Spyroidea* three horns are developed in the coryphal plate, the odd middle apical horn and two paired frontal or lateral horns arising on each side of the latter and directed more forwards (Pl. 84, figs. 9-12). Sometimes the apical horn disappears, while the two frontal horns remain (Pl. 95, fig. 12).

The anterior or ventral plate of the cephalis (the "Hinterseite" of Bütschli), and the posterior or dorsal side (the "Vorderseite" of that author), exhibit in the majority of *Spyroidea* more or less marked differences in the number, form, and disposition of their pores, which require a far more accurate description than is here possible. Usually the sagittal constriction of these two plates, produced by the primary vertical ring, is deeper and sharper in the middle of the ventral than in that of the dorsal plate. On both sides of the ring there appear in each plate usually two or three pairs of larger pores, whilst numerous smaller pores are situated towards the lateral sides. We may