

The proboscis, the fourth and last segment of the siphon, is in the spirit specimens examined usually short, highly contracted, and conical (Pl. IV. figs. 19, 20, *sr*; Pl. VII. fig. 42, *sr*). Often its proximal part is invaginated and turned over by the reflexed distal part (Pl. VI. figs. 35, 37, 38, *sr*). Sometimes four or eight strong longitudinal muscle-bands may be distinguished in the outer wall of the proboscis. The inner wall seems to be beset with peculiar glandular cells. The distal mouth is usually highly contracted, circular, with a thickened labial margin; often it shows a circle of radial folds or lobes, the number of which is sometimes four or eight, at other times twelve or sixteen (Pl. VI. figs. 35, 37, *sr*<sup>1</sup>).

*Tentacles.*—Each siphon bears in the Auronectæ, as in all other Siphonanthæ, a single long tentacle, and this arises from the basigaster, near its basal part. As mentioned above (p. 290) the tentacle remains attached to the basigaster, when the siphon becomes separated from the cormidium by self-amputation (sudden contraction of the basal sphincter), whereas the pedicle of the siphon remains attached to the corm.

The tentacles of the Auronectæ appear in two different forms, characteristic of the two families of this order. The small Stephalidæ (*Stephalia*, Pl. VII., and *Stephonalia*, Pl. VI.) have simple, not branched tentacles, similar to those of the Apolemidæ and *Linophysa*. The large Rhodalidæ, however (*Rhodalia*, Pl. III.; Pl. IV. figs. 20–23), possess branched tentacles, like the majority of Physonectæ; each tentacle bears a series of very numerous tentilla or lateral branches; in form and structure (fig. 23) they are very similar to those of the Forskalidæ.

The simple tentacles of the Stephalidæ are long and thin cylindrical tubules, and arise from the dorsal side of the basigaster near its pedicle (Pl. VII. figs. 39, 40). They are usually very much contracted in the spirit specimens examined, and not much longer than the siphons; but in the expanded state and in the living animal they are probably very long, several times longer than the whole corm. The tentacles of *Stephalia* (Pl. VII. figs. 39, 40) are all of the same size and similar form, not annulated, with equally disposed cnidocysts. But *Stephonalia* (Pl. VI.) possesses two different kinds of tentacles, larger superior and smaller inferior. The thinner tentacles, much more numerous, agree with those of *Stephalia*. The thicker tentacles, only developed in the proximal part of the trunk, are far larger cylindrical tubules, and appear elegantly annulated when examined by a weak lens; each prominent annulus is composed of densely crowded cnidocysts, wanting in the small constricted interval between each two rings (Pl. VI. figs. 35, 37, 38, *t*). The distal part of these thicker tentacles has a peculiar structure; it represents a cylindrical, articulated terminal filament, composed of about a dozen segments, and bearing no annuli of cnidocysts (figs. 35, 37, *tf*).

The branched tentacles of the Rhodalidæ have a similar but more complicated structure, and each bears a series of very numerous tentilla or lateral branches. The cylindrical tube, which is 1 to 1.5 mm. in diameter, may reach in the fully expanded state