

long tentacle (*t*), bears a hemispherical basigaster with a thick exodermal wall full of cnidocysts (*sb*). The large ovate or fusiform stomach (*s*) possesses four or six strong hepatic ridges (*sh*), composed of small villi and coloured red or brown (four in *Dicymba* and *Apolemopsis*, six in *Apolemia*). The long tubular proboscis (*sr*) bears a corresponding number (four or six) of longitudinal muscle-bands, and at the distal mouth a similar number of small rounded lobes.

*Tentacles and Palpacles.*—All Apolemidæ bear very numerous long and thin filaments, which are usually described as tentacles. According, however, to the general definition, which holds good for other Siphonophoræ, we may call only those larger filaments which are attached (singly) to the base of the siphons tentacles, whilst we call the similar smaller filaments which arise from the base of the cystons and palpons palpacles (thus a single one from each polypite). The structure is otherwise the same in both. They are simple, thin and long cylindrical tubules, closed at the distal end, opening into the pedicle of the polypite at the proximal end; they never bear lateral branches. The structure of the cylindrical wall is the usual one, a vibratile entodermal epithelium inside, a cnidal exodermal epithelium outside, and between them an elastic fulcrum, which bears inside a thin plate of ring-muscles, and outside numerous radial ribs covered with longitudinal muscles. The cnidocysts are larger and more numerous in the abaxial part of the exoderm and towards the distal end, often arranged in two or four longitudinal series.

*Cystons.*—Each siphon or feeding polypite of the Apolemidæ is associated with a cyston or excreting polypite (fig. 2, *y*). The Dicymbidæ, therefore, have in each monogastric cormidium a single cyston, the Apolemopsidæ in each polygastric cormidium several cystons, two to four or more. The cystons or “anal vesicles” are intermediate in size between the larger siphons and the smaller palpons, and at once distinguished from both by the dark (red or brown) colour of their nontransparent body. Their four segments are usually not so distinct as in the similar but more fully developed siphons; the hepatic ridges of the latter are replaced by series of glandular villi, secreting a granular red or brown pigment-mass. This is accumulated in a vesicular terminal diverticulum of the proboscis, and may be ejected through a small opening of the latter (anus).

*Palpons.*—The Apolemidæ possess exceedingly numerous tasters or palpons, usually twenty to forty or more in each single cormidium, therefore several thousands, when the number of cormidia exceeds a hundred, as is often the case in corms of two or three metres in length. The palpons are slender, very mobile, cylindrical or spindle-shaped tubes, closed at the pointed distal end, which is richly armed with cnidocysts and long cnidocils. The middle part of the utricle exhibits sometimes four or six longitudinal ridges, corresponding to the hepatic stripes of the siphons and the excretory pigment-stripes of the cystons. The pedicle of each palpon bears a long, very thin palpacle, similar to that of the cyston (compare 7, pl. xviii. fig. 4, and 8, Taf. xii. p. 10).