

protoplasm, lie in their centre (fig. 5 *d*), and distinctly form a connected axial cord in the centre of the whole column of cells (which in the solid oral styles of other Margelidæ, as in the similar tentacles of the Narcomedusæ and many hydroids, were erroneously considered by former observers to be a "central canal"). This solid endodermal cellular axis is surrounded by a thin, but firm and very elastic, strongly refringent, supporting lamella, by whose elasticity the extension of the contracted oral styles is effected on the cessation of the contraction of the muscle (figs. 5-7, *z*). The muscles, which in a great measure shorten and at the same time thicken the oral styles by their contraction, form a thin lamella, composed of longitudinal, parallel fibres. This muscular plate, here as in the tentacles, is a product of the ectoderm, whilst the elastic lamella is secreted by the endoderm. The ectoderm covering of the oral styles consists of flat epithelial cells which partly form flagellate capsules, partly stinging capsules, and also contain numerous granules of blood-red pigment. The stinging cells of the end knobs are not pigmented.

The œsophagus or "gullet," which may also be termed "proboscis," and which springs from the oral opening of the central gastral pyramid in the centre between the four stems of the oral styles, is two or three times as long as the gastral pyramid, and projects far beyond the velar opening of the umbrella cavity. It is quadrangularly prismatic, of equal thickness in the two upper thirds, whilst the lowest third is swollen into an egg-shaped pharynx without muscles. The latter is divided from the lowest part of the œsophagus, which bears the quadratic oral opening, by a circular constriction ("strictura palatina") (fig. 4). The thickened oral edge bears a circle of stinging knobs (figs. 4, *an*). The four perradial corners of the œsophagus project strongly, whilst the concave lateral surfaces lie in folds.

Order II. LEPTOMEDUSÆ, Hæckel, 1866.

Craspedota partly without, partly with marginal vesicles, these, when present, developed from the insertion of the velum, with ectodermal otolite cells. Ocelli at the bases of the tentacles sometimes present, sometimes wanting. Genitalia always in the course of the radial canals. Number of the radial canals varying, sometimes four, six, or eight, sometimes very large, sixteen, thirty-two, eighty, or even several hundred. Velum thin and delicate. Ontogenesis, usually alternation of generations, often with metamorphosis. The trophosome of the asexual generation is a hydroid-polyp of the order Campanulariæ.

Family, CANNOTIDÆ, Hæckel, 1877.

CANNOTIDÆ, Hæckel, System der Medusen, 1879, p. 140, taf. ix.

Leptomedusæ without marginal vesicles, with four or six radial canals, which are branched, forked, or pinnated, in whose course the genitalia lie.