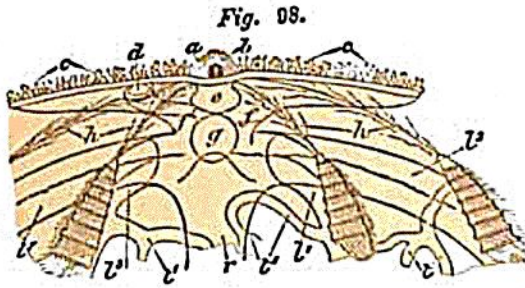


and the digestive cavity itself empty. Under such conditions and in a side view of the animal (Pl. II. *Fig. 18* and *Fig. 98*), the origin of the two lateral ambulacral tubes



Funnel and chymiferous tubes of
IDYIA ROSEOLA Ag.

a capsulo of the eye-speck. — *b* eye-speck. — *c c* circumscribed area. — *d* coeliac aperture. — *e* tubercle of the eye-speck. — *f f* forks of the funnel. — *g* opening of the coeliac tube. — *r* coeliac tube itself. — *h h* narrow prolongations of the rows of locomotive flappers. — *p p* anterior and posterior ambulacral tubes with the flappers of *p*. — *l l* lateral ambulacral tubes with their flappers. — *i i* internal ramifications of the ambulacral tubes.

of one side and the anterior and posterior ambulacral tubes of the same side may be distinctly seen arising from an ample common cavity, from which arise also, between the lateral ambulacral tubes, the still broader coeliac tube of that side, the lumen of which, *g*, is projected like a round hole upon the centre of the cavity. Above it, right and left, are the two large forks of the funnel, rising to the surface on the two sides of the central eye-speck, and forming, when projecting outward, the irregular bag represented in *Fig. 7*. This same apparatus may also be seen in *Figs. 2* and *3* of

Pl. I. In *Fig. 3*, the outline of the whole system may distinctly be traced in faint outlines, from the abactinal pole, the eight chymiferous tubes nearly following the outlines of the narrow bands in the prolongation of the rows of locomotive flappers, and the coeliac tubes running between the lateral ambulacra and projecting beyond the outlines of the digestive cavity.

All these tubes follow the course of the ambulacra, from the central chymiferous cavity to the margin of the mouth, where they open into a wide, circular tube encircling the mouth. The tubes are very wide, and their diameter uniform for their whole length. They may best be seen, and their connection with the oral tube is most distinct, in younger specimens (*Fig. 6^a* magnified and *Fig. 7*), in which the rows of locomotive flappers do not cover them. They are also distinctly seen in views from the actinal side (*Figs. 4, 9, and 2^a*), in which the oral tube encircling the mouth is seen to anastomose with all the ambulacral tubes, or rather the ambulacral tubes empty into the oral tube. The coeliac tube may be perceived for its whole length through the thickness of the spherosome between the lateral ambulacra in *Fig. 2*, and to communicate also with the oral tube. This anastomosis is particularly distinct in a view from the actinal side (*Fig. 4*). The course of the fluid contained in this system is somewhat peculiar. The great width of the tubes has reference, no doubt, to the very great size of the digestive cavity; but as they are capable of great extension and contraction, they readily adapt themselves to the quantity of fluid poured into the chymiferous system from the digestive cavity. There is in this family another structural adaptation, which makes it possible for the larger digestive cavity to discharge the nutritive fluid accumulated in it more promptly into the chymiferous system than this takes place in Pleurobrachia. The chymiferous tubes, instead of following a simple course as in the other Ctenophoræ,