

Fig. A. *r r* coelac tubes, *r* is cut near its origin. — *l l* internal ambulacral tubes, cut near their origin. — *l l* anterior and posterior ambulacral tubes, cut near their origin; all the cut ambulacral tubes are on the same side of the body; on the opposite side the following organs are visible from their internal face: — *l l* anterior and posterior ambulacral tubes. — *l l* internal ambulacral tubes. — *a a a* represents the section of the spherosome.

Fig. 11. Profile view of an ambulacral tube, with three rows of extended locomotive flappers and a band of pigment cells upon the spermaries projecting as pouches from that side of the tube.

Fig. 12. Oblique view of seven rows of locomotive flappers, greatly curved.

Fig. 13. Magnified view of an ambulacral tube, with four rows of slightly arched locomotive flappers, and the incipient pouches of the spermaries partly covered by pigment cells.

Fig. 14. Abactinal termination of an ambulacrum, to show how rapidly the rows of locomotive flappers taper on that side, in comparison with their actual termination, as represented in fig. 17.

Fig. 15. Profile view of an ambulacral tube, with five rows of slightly arched locomotive flappers. The adjoining interambulacrum is so raised that the row of pigment cells covering the spermaries is seen in profile, while in fig. 13 it is depressed and the whole diameter of the tube is visible.

Fig. 16. Profile view of the ambulacral tube of an adult specimen, slightly magnified, with the adjoining interambulacrum depressed so that the ovarian pouches are fully seen. As these organs and the spermaries are on opposite sides of the ambulacral tubes, the locomotive flappers appear curved in a different direction in fig. 16 and in fig. 13, as they are seen in opposite directions.

Fig. 17. Actinal prolongation of the row of locomotive flappers, tapering to a mere thread and surrounded by branching pigment cells. Here the underlying ambulacral tube, from which arise two small branches on the same side, is much broader than the row of flappers. It is interesting to notice, that even in the prolongation of the tube beyond the ovaries and the spermaries, the pigment cells are much more crowded on the spermaric side of the tube than on the opposite side, and that the branches extending into the spherosome arise only on its ovarian side.

Fig. 18. This figure is reproduced in the adjoining woodcut, fig. B. It represents the abactinal pole of our *Idyia* in profile and sufficiently magnified to show the relations of the central chymiferous cavity to the ambulacral and coeliac chymiferous tubes, to the forks of the funnel, and to the coeliac aperture.

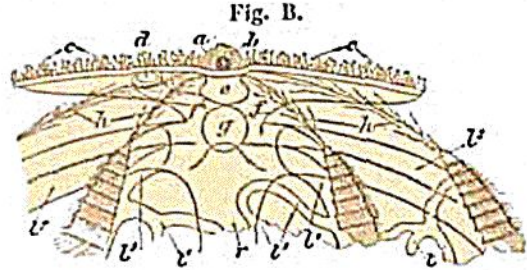


Fig. B. *a* capsule of the eye-speck. — *b* eye-speck. — *c* circumscribed area. — *d* coeliac aperture. — *e* tubercle of the eye-speck. — *f f* forks of the funnel. — *g* opening of the coeliac tube. — *r* coeliac tube itself. — *h h* narrow prolongations of the rows of locomotive flappers. — *l l*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

Fig. 19 is fully explained on page 281 of the text.

PLATE IIa.

PLEUROBRACHIA RHODODACTYLA.

[Figs. 1 to 10, and 21, 23, 24, and 26, drawn from nature by H. J. Clark, the others by A. Sorel.]

A, B, C, D, E, F, G, H, the eight broad interambulacra trending from the actinal to the abactinal poles: in figs. 20, 21, 22, and 23, they are placed correspondingly, A and E in the plane of the digestive cavity, and C and G in the tentacular plane. These letters also mark the position of the eight interambulacral bands of the peripheric cellulo-motor system, which are shown in a transverse section at the equatorial region.

*a*, the mouth. It assumes the most diversified outlines when shut, or expanded in various ways.

*a'*, the corners of the mouth, or the edge of the digestive cavity, seen in the distance.

*b*, the actinal part of the digestive cavity.

*c*, the abactinal part of the digestive cavity upon the walls of which exist the brown hepatic cells, through which the substances which have been digested are emptied into the main chymiferous cavity *d*. There is, at its bottom, an opening *c'*.

*d*, central chymiferous cavity. This cavity with its vertical prolongation *f* corresponds truly to the main cavity of *Polypi*, with this difference, that in *Polypi* there are partitions dividing it off around the periphery, while in *Medusæ* the mass of cells forming the body occupies, to a great extent, the inner space of the animal, and