

general form appears more rounded than under ordinary circumstances, as may be seen upon comparing fig. 5<sup>a</sup>, which represents the same animal in the same condition from the actinal side with fig. 4, in which the mouth is visible.

Fig. 6 is a view of a young specimen, as they appear early in July, magnified in fig. 6<sup>a</sup>, to show more distinctly that the short rows of locomotive flappers leave the ambulacral tubes uncovered for half the height of the body, and that the ramifications of these tubes are much fewer and much more simple than in older individuals.

Figs. 7 and 8 represent one and the same specimen, about half grown, from the side in fig. 7, and from the anterior or posterior surface in fig. 8. The locomotive flappers extend already much nearer the mouth than in fig. 6, and the ramifications of the ambulacral tubes are more numerous; but the whole body is still much paler than that of adult specimens.

Fig. 9 is a view of the mouth, contracted in the centre and gaping forward and backward.

Fig. 10 represents a specimen gorged with a *Bolina* nearly as large as itself, distorting its form to so great an extent as barely to resemble another view of the same, given in fig. 7.

PLATE II. represents structural details of *Idyia roseola*.

Figs. 1 and 2 show the difference there is in the appearance of the abactinal end of the body when seen from its broad or narrow side. Fig. 1 shows the broad or lateral side, with the lateral spheromere and especially the lateral interambulacrum bulging above the anterior and posterior pairs, and concealing partly the circumscribed area, which however shines through, with the eye-speck in the centre. Fig. 2 shows the narrow anterior or posterior side, with the eye-speck and the foreshortened circumscribed area visible in the trough formed by the depression in the abactinal termination of the anterior and posterior spheromeres.

Fig. 3 is a magnified view of the abactinal pole, representing the position of the eye-speck in the centre of the abactinal area, between the anterior and the posterior halves of the circumscribed area, and with the central termination of the eight narrow bands extending from the summit of the locomotive flappers to the eye-speck. The gray bands forming a zigzag around the eye are the outlines of the funnel.

Fig. 4 represents a magnified band across one ambulacrum and part of another. Right and left of the row of locomotive flappers are the ovaries and the spermaries; the first covered with deep pink-colored pigment cells,

and the latter only lined with paler pigment. Another row of ovaries belonging to the adjoining ambulacrum is seen in the same interambulacrum, and the intervening part of the spherosome is traversed by numerous branches of the ambulacral tube, arising partly from the ovarian pouches and partly from the tube itself. Along the spermaries there are no ramifications of the chymiferous tubes.

Fig. 5. The abactinal end of the ambulacrum of a younger specimen, in which the ovaries and spermaries are not yet developed, more highly magnified, in order to show the trend of the cells of the radiating system.

Fig. 6. Ramifications of the chymiferous tubes of an adult specimen more highly magnified, to show to what extent the eggs may be crowded in these tubes, after they have left the ovaries.

Fig. 7 gives an oblique view of the cœlic bulb, rising upon the side of the circumscribed area. The lower part of the figure represents a part of the surface of the area itself, with its marginal fringes, to show that the cœlic bulb is outside the area, as is again shown in fig. 9, where the cœlic aperture is represented gaping, in the shape of a circular hole.

Fig. 8. Profile view of the eye-speck with its transparent cap, magnified and seen from the broad side of the body, so that only four of the narrow bands are visible below it, and part of the circumscribed area in profile. This figure corresponds exactly to fig. 3, which represents the same parts, and in the same size, from above.

Fig. 9. Circumscribed area on one side of the eye; seen obliquely, in order to show at the same time its entire outline, the surface encircled by its fringes, the cœlic aperture on its side, and the narrow band of one of the anterior ambulacra following its outline.

Fig. 10. Vertical section of the whole body, in the direction of the longest or axial diameter, with the exception of the abactinal side, through which passes a transverse section reaching the digestive cavity. The adjoining wood-cut (fig. A), which represents only the abactinal part of fig. 10, Pl. II., may best explain the parts so brought into view. The actinal part of fig. 10 shows the prolongation of the parts cut through in fig. A, one half of the mouth and one half of the oral tube being cut through in the anterior and in the posterior interambulacra, and the lumen of the oral tube appearing in the thickness of the spherosome. The epithelial lining of the digestive cavity appears as vertical striæ above the margin of the mouth.