

## EXPLANATION OF THE PLATES.

In order not to spoil the appearance of any of the most delicate and of the smallest figures drawn upon the following plates, which require a large number of signs to explain their details, I have only added special references to the largest of them, or to those which would not be injured by crowded marks of every kind; but, to supply this deficiency, I have had wood-cuts made corresponding to the figures requiring the most minute explanations, and trust that the others will explain themselves by comparison.

### PLATES I. and II.

#### *IDYIA ROSEOLA* Ag.

[All the figures of these Plates were drawn from nature by A. Sonrel.]

PLATE I. requires but little explanation. It represents *Idyia roseola* in different stages of growth and in different attitudes, in the size of life, and with its natural colors.

Figs. 1-3 represent adult specimens; figs. 4 to 10 are not full grown; fig. 6 is a young, magnified in fig. 6a.

Fig. 1 is a view from the narrow side of the body, showing the two anterior or posterior ambulacra and two of the lateral ambulacra, one on each side of the figure. The circumscribed area is visible, but foreshortened, as it trends at right angles with the surface represented.

Fig. 1a shows how the lips may close up.

Fig. 2 represents the same animal from the broad side of the body, showing the two lateral ambulacra of one side in the centre of the figure, and two of the anterior and posterior pairs, one on each side of the figure. On the abactinal side the lateral interambulacrum rises above the level of the circumscribed area, which trends in the plane of the figure.

Fig. 2a represents the mouth turned 'sideways, showing the linear arrangement of the epithelium lining the interior of the digestive cavity.

Fig. 3 represents the abactinal side of the body as it appears when fully distended by the filling of the chymiferous system. In the centre appear the circumscribed area and the eye-speck, towards which trend the eight narrow bands extending from the summit of the ambulacral rows of locomotive flappers to the eye-speck. On the sides of the circumscribed area, nearly midway of its two halves, the cæliac apertures may be seen. Nearly concentrically with the abactinal termination of the locomotive flappers, the outline of the digestive or cæliac cavity may faintly be seen through the thickness of the spherosome, as well as the eight ambulacral tubes which trend in the direction of the locomotive flappers and the cæliac tubes which run between the lateral ambulacra, and are seen projected beyond the outlines of the digestive cavity. The deep pink rows on the sides of the locomotive flappers are formed by the accumulation of pigment cells over the spermaries, while the paler rows on the opposite sides of the ambulacra indicate the ovaries.

Fig. 4 is a view from the actinal side with the mouth shut in a straight line. The outlines of the digestive cavity and the chymiferous tubes are visible through the thickness of the spherosome. The cæliac and the oral tubes are particularly distinct.

Fig. 5 represents a half-grown specimen from the broad side, with the actinal end of the body turned inside into the digestive cavity, in consequence of which the