

mentioned, the rows of locomotive flappers extending only over a limited part of their surface (*Fig. 6* and magnified *Fig. 6^a*), but they are also more rounded, the sides not being so flattened as in the adults. Moreover, the flappers in each row are fewer, and, comparatively to the size of the body, much longer, than in the adults, and the rows themselves much further apart. The chymiferous tubes, which penetrate like a network through the whole thickness of the spherosome, are also much fewer and much less branching in the young than in the adult. Again, before the spawning season approaches, the color over the whole surface is more uniform and paler, as in *Figs. 7* and *8*, the ovaries and spermaries being not yet visible; while in the adult (*Figs. 1, 2, and 3*), they appear as bright rows of branching sacs on the sides of the ambulacral tubes. The arrangement of these organs is so peculiar that it increases the differences resulting already from the inequality of the spheromeres, the ovaries forming broader sacs, of a paler color than the spermaries, which are accompanied by more intensely tinged pigment cells. And then, owing to the fact that alternate interambulacral zones are occupied by ovaries and spermaries, each ambulacrum has ovaries on one and spermaries on the other side of its ambulacral tube, so that, though each ambulacrum is more brightly colored than the intervening space, it is paler on one side than on the other, the pale sides, occupied by the ovaries, being always turned toward each other, as are the bright sides also, which are occupied by the spermaries (*Figs. 1, 2, and 3*). But none of these differences are visible in early life. Again, when well fed the outlines are rounded (*Fig. 3*); but after fasting the interambulacral zones subside and the ambulacral zones become prominent (*Figs. 1 and 2*).

In the plates representing *Idyia roseola* I have attempted to reproduce the appearance of all the parts of the animal as nearly as possible like life, and have been assisted in this attempt beyond my expectation by the skill of Mr. Sonrel. But so delicate is the substance of this animal, and so slight are the outlines of its different parts when seen through the thickness of the spherosome, that they could only be faintly represented, in order not to exaggerate their natural appearance. Upon careful examination of the figures of Plates I. and II. it may, however, be found, that, faint as they are, the outlines of all the organs are correctly rendered. Yet, to obviate the difficulty that may arise in comparing the descriptions with these plates, I have had wood-cuts made of the most characteristic details of the structure, corresponding to the colored plates and explanatory of them. *Fig. 10* of Pl. II. is the only one in which the structural details are reproduced with a dark tint which they never had in nature. As already stated when characterizing the family of the Beroids proper, our *Idyia* has the spherosome of a very uniform thickness, though the spheromeres are not perfectly equal in their size. The anterior and the posterior pairs are somewhat nearer to one another, and their lateral