

of these animals is satisfactorily made out. I shall describe their embryonic development hereafter, in connection with that of Pleurobrachia and Idyia.

The extraordinary metamorphoses of certain Echinoderms, which the late J. Müller first observed, ought not to be neglected in connection with the study of the Ctenophoræ; for the remarkable resemblance between the singular transparent frame which protects the growing embryo of some Star-fishes and Sea-urchins and the body of Ctenophoræ Lobatæ cannot be overlooked by an attentive observer, while the fact that the parts of that external frame present numeric combinations which are unusual among Echinoderms, but correspond to those of the Beroid Medusæ, will be an inducement to institute, at some future day, a close comparison between their structure. The ciliated appendages which hang downward in those larval Echinoderms closely resemble the vertical rows of locomotive flappers with their chymiferous tubes, as observed in Beroid Medusæ. And it is interesting to find, that in Echinoderms there is a metamorphosis going on in the embryo, recalling the structure of the class of Acalephs in a manner very similar to the analogy which exists between the embryos of the Acalephs and the Polyps. For whether we compare the Strobila in its earliest conditions, or the young buds of Hydroids from which Medusæ arise, the analogy of these earliest states of development of the Acalephs with Polyps is unmistakable; and I have no doubt that the external frame of the young Echinoderms, which Müller has so beautifully illustrated, will be found to bear the closest resemblance to the structure of the Ctenophoræ, as soon as an actual comparison can be instituted with reference to the homology of their structure. But it is hardly possible to make such comparisons from descriptions and figures, however accurate these may be; and Müller's attention seems not to have been attracted by this remarkable resemblance, otherwise he could not have failed to allude to their typical identity while describing those embryos. So much, however, may already be stated, that the general arrangement of the ciliated lobes of the Pluteus corresponds to the ambulacral rows of the Ctenophoræ, and that the tubes which accompany them compare closely with the chymiferous tubes of the Acalephs; but notwithstanding my constant efforts in studying the embryology of a number of Echinoderms, I have, up to this time, been able to observe the growth of such species only as follow the peculiar mode of development first described by Sars.

*BOLINA VITREA* Ag. is a second species, of which I have seen only a few specimens, at Key West, in Florida. It is easily distinguished from *Bolina alata* by its more elongated vertical diameter and the narrowness of the locomotive flappers. Its substance is so transparent that it is difficult to follow its movements, even in the clearest glass jars with the purest water; for its ambulacra are scarcely visible as grayish bands upon the sides of the spherosome, and, though iridescent, the play