soon assumes an ephyra-like condition (*Figs.* 10 and 11). In *Fig.* 10, which represents it as swimming, *b b* indicate the lobes of the ephyra, which, in *Fig.* 11, are seen stretched on a plane, and disclosing the terminal emarginations, between which arise the eyes; *b* marks the termination of the radiating pouches, and *a* the mouth. We have thus a direct and gradual transition from embryos similar to a scyphostoma which has not yet got tentacles, *Fig.* 7, to one which has seeming tentacles, *Figs.* 8 and 9, eight in number, and which, instead of developing into slender tentacular appendages, are enlarged into lobes, corresponding to those of the ephyra of Aurelia, as represented in Pl. XI[a]. *Fig.* 26, traversed by broad chymiferous pouches, such as exist also in Aurelia (Pl. XI[b]. *Fig.* 4) during the earlier stages of their ephyra condition, showing that in this type the development takes place by a gradual metamorphosis of the scyphostoma into an ephyra, without the intervening strobila condition, and therefore without a multiplication of individuals from one and the same egg.

This direct transformation of the scyphostoma into the ephyra is important, not only as exhibiting a special mode of development in the Pelagidæ, when compared to the Cyaneidæ and Aurelidæ, but also in a morphological point of view, since it shows, beyond a question, that the radial prolongations of the body, which arise on the actinal edge of the scyphostoma, may be developed into two different kinds of organs in different types, becoming tentacles in Aurelidæ and Cyaneidæ, by direct metamorphosis, and becoming radiating pouches, with an eye in its radial prolongation in Cyaneidæ; thus showing, through embryological evidence, what I have already maintained on other grounds, that the ocular apparatus is a tentacular apparatus, and the eye a metamorphozed tentacle, or, in other words, that the tentacles in Radiates are the lowest condition of that structural element which, in its highest development, appears as an eye. Thus the pigmentation of a tentacle, near its base, is the first indication of an approximation towards an eye, and the reduction of the tentacular element is generally accompanied by a higher development of the ocular element. It has already been shown, also, that in abnormal states of strobilas there are all possible transitions and combinations of both. See Pl. XI. In the state of development represented *Fig.* 11, Pl. XII., the radiating pouches are simple, and extend only to the base of the eyes, in the emargination of the eight lobes; but within twenty-four hours such an ephyra passes into the condition represented in *Fig.* 12, in which the radiating pouches have enlarged into marginal sacs, on the two sides of each eye peduncle. In this stage the ephyra of Pelagia closely resembles that of any Aurelia in which the veil and tentacles have not yet begun to be developed, as represented on Plate XI[a]. In that condition of the Aurelia, the radiating prolongations of the chymiferous system are not yet closed branching tubes, as in later periods, but flat pouches, as in Pelagia and Cyanea;