

preceding stages, sideways. Of the two branches, the one has assumed the character of the scale, the other of the flagellum. Both flagella of the antennulæ have become considerably elongated and divided into distinct articulations. The two anterior pairs of legs are more fully developed and nearly equal in size, both having acquired the geniculate bend characteristic of the adult animal. Posterior to these, another pair of legs have developed, and the gills are distinctly visible, though still exhibiting a very simple structure. The hindmost pair of luminous globules on the trunk have just appeared, and on the tail all the globules are quite distinct. Length of body 3.80 mm.

Last Cyrtopia Stage (fig. 9).—In this stage the flagellum of the antennæ has increased considerably in length, and its basal part is clearly defined from the terminal part. On the trunk occur three pairs of distinctly developed, geniculate legs, and behind them another much smaller pair have made their appearance. The endopodite of the maxillipeds is somewhat prolonged, and has a more pronounced pediform appearance. Finally, the gills are somewhat more complex in structure than in the preceding stages. Length 4.15 mm.

First Post-Larval Stage (fig. 10).—The full number of legs is now developed, and the animal, on the whole, exhibits all the characters distinguishing the adult form, except that the flagella of the antennulæ and antennæ have not yet attained their full length, that the gills are still comparatively simple in structure, and, finally, that the anterior pair of the lateral denticles of the carapace are not yet developed. Length of the animal in this stage about 5 mm.

B. *Development of the several Appendages of the Body* (Pl. XXX.).

The Compound Eyes (fig. 9).—In the Nauplius and Metanauplius stages these organs are entirely wanting, as shown to be the case in the last of these stages in *Nyctiphanes*. In the Calyptopis stages they are still very imperfectly developed, forming immobile rounded masses, wholly covered by the carapace and devoid of any distinctly developed visual elements. In the last only of these stages a faint trace of the ocular pigment and a few radiating stripes may be seen in the anterior part of the eyes. Not till the Furcilia stages do the organs (fig. 9) become mobile and pedunculate, as also freely projecting towards either side. The cornea has become formed, but its areolation is still imperfect, and the visual elements, radiating from the ocular pigment, are unequally developed, those in the middle being still quite rudimentary. The luminous ascicle, distinct in the earliest stages, has now a narrow ring of red pigment coating on the base. The following development of the eyes proceeds quite gradually, and as early as the Cyrtopia stages, they exhibit much the same appearance as in the adult animal, though comparatively smaller and less expanded at the tip.