

which juts out as a lanceolate pointed projection, all the original spines affixed to this part in the earlier stages having disappeared. The three outer spines on either side of this projection are still present in this stage, and the innermost of these spines is very large and has already assumed the form characteristic of the subapical spines in the adult animal, whereas the outermost is exceedingly small and easily recognised as representing the posterior pair of dorsal spines in the adult animal.

In the first post-larval stage, finally, the telson has assumed the precise appearance characteristic of the adult animal, the middle of the exterior spines having been wholly lost.

Thus, of the spines occurring on the telson in the larva, three pairs only are retained in the adult animal, viz., the lateral spines, which represent the anterior pair of dorsal denticles, the outermost, on either side, of the terminal spines, constituting the posterior pair of dorsal denticles, and the third spine on either side, counted from the outer corner, which are modified to form the peculiar subapical spines of the adult animal. All the other spines wholly disappear in the course of the larval development.

*The Uropoda* (figs. 37--42).—As stated above, these limbs are entirely wanting in the earliest larval stages (see fig. 36), not appearing till the last Calyptopis stage, when they are (fig. 37) very small and have only an indistinct mark between the basal part and the terminal plates, the latter being furnished with but very few bristles proceeding from their apex; of the plates, the exterior one is the longer, and has the outer corner drawn out to a strong spine. In the following stages (figs. 38–40) the uropoda develop by degrees more fully, the terminal plates increasing in length and becoming furnished with a greater number of bristles, continued along their inner edge, till in the first post-larval stage (fig. 42) they have almost attained the aspect characterising those of the adult animal, though still somewhat shorter in relation to the telson.

*The Luminous Apparatus* (figs. 9, 25–32).—Of the numerous organs constituting this peculiar apparatus, those occurring in the eye-pedicles of the adult animal are first developed. According to the statements of Metschnikoff, even in the Nauplius stage the peculiar fascicle of glistening fibres, constituting the essential part of these organs, is distinctly seen on either side of the larval eye, or ocellus, no trace of the compound eyes being as yet observed. In all the succeeding stages these organs are readily discerned, imbedded in the base of the developing eyes. The other organs, the true luminous globules, make their appearance at a much later period, and are not all developed at the same time, but appear successively. In the intermediate Furcilia stage (Pl. XXIX. fig. 6) only three such globules are developed, viz., the anterior of the two pairs belonging to the trunk, and the foremost of the odd caudal globules. In the last Furcilia stage the posterior pair belonging to the trunk have likewise appeared, though being still but very faintly defined (see fig. 29), as also another of the caudal globules. The remaining two caudal globules successively appear in the following