

of the first caudal segment, being also partially overlapped by a lamellar projection extending anteriorly from this segment. The anterior part of the carapace is generally slightly keeled above, and projects into a more or less marked rostral process. The antero-lateral corners of the carapace are very slightly produced, exhibiting at the sides of the basal part of the antennæ a small dentiform projection, apparently corresponding to the antennal spine in other Podophthalmia.

The five anterior caudal segments are provided with distinctly developed lamellar epimera, projecting beyond the ventral face and pointing obliquely backwards. The last segment is much narrower than the preceding ones, and rather compressed, without any trace of epimera, but usually armed beneath its end with a compressed tooth, placed immediately anterior to the anal opening (preanal spine).

The eyes are well developed, and generally of a pyriform shape, having the pedicle composed of two segments, and the cornea expanded, globular, with a very dark pigment, and distinctly developed visual elements. Moreover, they invariably contain within the pedicle posteriorly and somewhat inferiorly a peculiar, highly luminous, organ (Pl. XI. figs. 7, *b*, 8), more fully described in the sequel. Between the bases of the eyes, too, may be observed a small but distinct spot of black pigment (the larval eye), apparently containing anteriorly a minute refracting body (see Pl. XI. fig. 7, *a*).

The antennular peduncle (see Pl. XII. figs. 1, 2) is rather elongate, always projecting far beyond the antennal scale, and cylindrical in form, with its three joints gradually diminishing in size. The structure is precisely the same in both sexes. The basal joint is somewhat flattened in its proximal part, and in some species exhibits at the end, above, a small membranous lappet. Moreover, it is furnished with several finely ciliated bristles, of which a dense fascicle is seen issuing from the outer corner. The last joint exhibits a longitudinal keel, and exteriorly, at the end, a small lobe, from the base of which issue two densely ciliated bristles. Both the flagella are rather elongate, though far from attaining the length of the body, and consist of numerous small articulations. The outer flagellum has at the base a slight intumescence, beset with a fascicle of translucent sensory bristles.

The basal part of the antennæ (see Pl. XII. figs. 5, 6) is rather large, and divided into two indistinctly defined segments, of which the proximal exhibits on the ventral face a small opening, surrounded by a somewhat tubular projecting border, the outlet of the so-called "green gland." The distal segment juts forth at the end exteriorly beneath the scale, as a more or less elongate spine. The terminal part of the antenna consists of a rather elongate three-jointed peduncle and a slender multi-articulate flagellum, somewhat longer than the flagella on the antennulæ. The scale is more or less elongate-ovate in form, having the outer edge straight and naked, terminating also in a very small dentiform projection, sometimes, however, obsolete. The apex is truncated, and, like the inner edge, fringed with a dense row