

of the buccal area, and partly covering with its sharp posterior edge the masticatory parts of the mandibles.

The posterior lip (Pl. VIII. fig. 5) consists of two membranous and somewhat expanded lobes, connate in the greater part of their length, and exhibiting anteriorly a fringe of delicate cilia.

The mandibles (Pl. IV. fig. 4, *M*; Pl. VIII. figs. 2, 3) are strongly developed, with the body evenly arched externally, and navicular in form. The cutting edge is armed with strong dentiform projections of a somewhat irregular form, and exhibits in its posterior part a distinctly fluted molar surface. As is usually the case, the armature is somewhat unequal on the right and left mandibles (Pl. VIII. fig. 2). The palp is rather large, densely setose, and consists of three joints, the first quite short, the second comparatively elongate and strongly compressed, the last rather narrow, and provided along the inner sharp edge, almost throughout its whole length, with a dense fringe of delicate spines, disposed in a pectinate arrangement, besides which it has a row of fine bristles (see fig. 3).

The first pair of maxillæ (Pl. VIII. fig. 6) exhibit, as in *Lophogaster*, two incurving masticatory lobes, of which the outer is the larger, and armed at the truncated apex with short spines, whereas the inner lobe is more membranous in structure, and densely beset with ciliated bristles. These maxillæ, however, are readily distinguished by the presence, on the outer side of the basal part, of a distinctly developed two-jointed palp, which, contrary to what is the case in other Podophthalmia, is bent directly backward, so as to project into the branchial cavity, thus acquiring at the first glance the appearance of an epignath. Both joints of this palp are beset with long and thin bristles, of which more especially those attached to the ovoid terminal joint are of very considerable length; all these bristles are armed at one of their edges with fine spinules. Regarding the function of this very peculiar palp, it certainly may be deemed similar to that observed in the corresponding part of Cumacea and the cheliferous Isopoda, viz., to cleanse the branchial cavity from foreign particles.

The second pair of maxillæ (Pl. IV. fig. 4, *m*²; Pl. VIII. fig. 7) are rather large, expanded into lamellæ, and exhibit exteriorly at the base a very conspicuous mamilliform prominence (*x*), within which, in spirit specimens, is observed an opaque, finely granular matter. As stated by the late Dr. v. Willemoes-Suhm, this prominence in fresh specimens is vividly coloured, and has been regarded by that author as a kind of visual organ ("accessory eye"); hence the generic denomination *Gnathophausia*. I have, however, failed to trace any refracting elements within this prominence, and hence am inclined to regard it rather as a kind of phosphorescent organ. The basal part sends off internally, as in *Lophogaster*, two masticatory lobes, pointing obliquely forward, of which, however, the anterior is deeply cleft, almost to the base, forming two very narrow lappets, provided, in addition to the usual apical spines, with a transverse row of stiff bristles at some distance from the apex. The posterior masticatory lobe is rather