The carapace in all the species is rather large, almost covering the whole anterior division of the body, not, however, being connate, only to a rather limited extent. When viewed from above it exhibits anteriorly (see Pls. II., III., IV., V. fig. 2) a short linguiform area, sharply marked off behind by a curved line. This dorsal area projects from the so-called stomachal region, and generally does not even reach posteriorly the middle of the carapace. Only within this restricted area, and in front of it, does the carapace constitute the true body-wall; behind it covers, though very loosely, the trunk, all the segments of which appear well developed in their whole circumference, and exhibit a rather uniform aspect (see Pl. VIII. fig. 17). Thus the greater part of the carapace, as in the genus Nebalia, would appear to form, so to speak, merely a loose mantle arching the back and sides of the trunk, and within which the body is freely movable; a character also regarded by the late Dr. v. Willemoes-Suhm as more particularly distinguishing the present type. This mantle-like portion of the carapace, likewise found, though generally less prominently developed, in the other Lophogastridæ, as also in Eucopia and in the Mysidæ, exhibits in Gnathophausia on each side two more or less well-marked longitudinal keels, dividing this part into five areas, the odd one in the middle, limited by both of the upper keels, with a lateral area on each side, between the upper and lower keels, finally a much smaller marginal area, extending between the lower keel and the free edge of the carapace, the last being strongly inflected toward the ventral face. The lateral areas occupying most of the sides of the carapace, are bounded anteriorly by an obliquely descending elevated line, corresponding, in position, with the branchiostegal line of the higher Podophthalmia, and terminating just above the buccal area. Immediately below this line, the carapace forms a more or less marked lateral expansion, jutting out in some species into a strong, exteriorly pointing projection, which I regard as the branchiostegal spine.

Viewed from below (see Pl. IV. figs. 3 and 4), the free margins of the carapace will be found to exhibit on each side a deep, nearly semicircular emargination, into which the exognath of the second pair of maxillæ fits. Moreover, this emargination is bounded anteriorly as well as posteriorly by an obtuse linguiform lobe bent inwards; the anterior lobe partly overlaps the body of the mandible, whereas the posterior lobe inclines toward the base of the maxillipeds. Immediately anterior to the above mentioned lateral expansion of the carapace, a strong spine projects in most of the species, pointing obliquely forward, which, as to its position on the side of the basal part of the antennæ, may properly be regarded as the antennal spine. Finally, just above the eyes, or on each side of the base of the rostrum, the frontal part of the carapace usually juts out into a similar, and often rather strongly developed spine, undoubtedly corresponding to the supraorbital spine in other Podophthalmia.

The rostrum is generally rather elongate and slender, though sometimes very broad