

bent towards the ventral face, where it is freely suspended, meeting the corresponding branch on the opposite side in the median line (see fig. 16), whereas the remaining three branches occur on the exterior side of the legs and are completely covered by the marginal portion of the carapace. Every gill-branch, too, consists of a median stem, sending off in comparatively regular sequence secondary branches from each side, whereby the whole branch acquires a bipinnate appearance. The secondary branches or pinnulæ are, furthermore, divided into a vast number of small lobes (see fig. 13) arranged with less regularity, and even these lobes may occasionally be found,—especially on the inner part of the gill-branch,—to be subdivided into smaller lobules. The final ramifications of the gills are always of a simple cylindrical, or rather vesicular, form, never, as in *Lophogaster*, foliaceous. Regarding the insertion of the gills, they would seem to originate at the articulation between the bases of the legs and the pleuron of the corresponding segment, and hence may properly be designated “arthrobranchiæ,” although, on dissection, they remain as a general rule in connexion with the legs.

In the fully developed females, as with *Lophogaster*, seven pairs of large foliaceous lamellæ, fringed at the edges with bristles, spring from the bases of all the legs, and, folding one over the other in the median line, form a capacious marsupial pouch, projecting from beneath the trunk (see Pl. II. fig. 1; Pl. V. fig. 1; Pl. VI. fig. 6).

In the males, on the other hand, may be observed, at the base of the last pair of legs posteriorly (see Pl. VIII. fig. 14, *p*, and fig. 15) and on each side, a small tuberculiform prominence, representing the outer sexual appendage, and having at its extremity the fissure-like opening for the efferent duct of the testes.

The caudal limbs (Pl. VIII. fig. 18) in both sexes are developed in the same manner as powerful natatory organs, consisting of a somewhat applanated and strongly muscular basal part, and two very elongate and slender terminal branches, the outer part of which is subdivided into a great number of small articulations furnished with strong natatory setæ. They all exhibit a perfectly uniform structure, none of them in the males being distinguished by the slightest peculiarity, as is the case in the Euphausiidæ and Mysidæ.

The telson (see Pl. II. fig. 7; Pl. III. fig. 6; Pl. IV. fig. 7, &c.) is exceedingly large, and has the upper face somewhat channelled along the middle, exhibiting on each side an obtuse longitudinal keel. It is slightly constricted near the base, and tapers more or less rapidly toward the apex, which juts out into two strongly curved spines, connected in the middle by a serrate lamella, thus forming together an almost semilunar projection. The lateral edges of the telson are densely spinulose throughout their distal portion, the spinules being of somewhat unequal size, so that between two larger ones, as a rule, occur a more or less considerable number of much smaller ones. At the base of the telson, on the ventral face, is placed as usual the fissure-like anal opening.

The uropoda (*ibid.*) are generally shorter than the telson, and consist of an exceedingly short basal part and two terminal plates, which admit of being spread out on