

slender, spear-shaped, three-edged, denticulate. Hinder part of carapace for the most part drawn out dorsally into a posteriorly pointing spine. Caudal segments narrow, with small, bilobed epimera; the last subdivided transversely. Eyes well developed, with a small papilla issuing from the pedicle anteriorly. Antennular peduncle short and thick, outer flagellum greatly produced, riband-shaped. Antennal scale of somewhat varying form in different species. First pair of maxillæ provided with a biarticulate, setous palp, completely recurved posteriorly. Second pair exhibiting at the base exteriorly a pigmented protuberance (luminous organ?); anterior masticatory lobe cleft to the base into two very narrow lappets; palp rather large. Maxillipeds having exopodite either very small or entirely wanting. Legs slender, nearly uniform, ambulatory; first pair differing very slightly from the rest. Branchiæ divided into four bipinnate ramifications, pinnulæ exhibiting irregularly disposed, digitiform lobules. Telson very large, constricted near the base, lateral edges densely spinulous, apex armed with two strong curved spines connected at the base. Uropoda with the outer plate broader than the inner, and having a short dentiform projection at the end of the outer margin, the terminal lobe being marked off by a distinct transverse suture.

*Remarks.*—Of the earlier known Schizopods, *Lophogaster* certainly comes nearest to the present interesting genus, first established by the late Dr. v. Willemoes-Suhm, and I fully agree with that author in including it in the same family with that genus. On the other hand, it will appear from the diagnosis given above, that the genus here treated of exhibits several very striking features, distinguishing it rather clearly from the other Lophogastridæ. Moreover, the general appearance will be found to diverge a good deal from that observed in the two preceding genera.

To our knowledge of the present remarkable genus a very important contribution has been furnished by the Challenger Expedition, no less than nine different species being represented in the collection. Of these species, only one, *Gnathophausia ingens*, had been recorded at an earlier date; all the remaining species were first discovered during the course of the Expedition.

With a view of obtaining a clearer survey of the organisation of this interesting type, I have deemed it advisable to give a general description of the genus, previously to characterising the several species comprised therein.

*General Description of the Genus.*—The form of the body (see figures given in Pls. II. to VII.) will be found to vary somewhat in the different species, mainly owing to the more or less prominent development of the carapace. In all the species, however, the tail is very slender, almost cylindrical in form, and its segments provided with rather small epimera, divided into two more or less produced lappets. The last segment exhibits, as in *Lophogaster*, an obliquely transverse suture, thus apparently subdividing it into two sections, the anterior of which is provided with a pair of imperfectly developed, and, in some species very peculiarly formed, epimera.