Although the present species would seem to be widely distributed, and a rather plentiful supply of specimens was collected by the Challenger Expedition, it has proved a matter of no small difficulty to make out its anatomy and to arrive at a correct idea of the general appearance of the animal, most of the specimens, owing to their great fragility, being in a rather imperfect state of preservation, and having lost a more or less considerable number of their limbs. However, by comparing all the specimens, and supplying from one what is wanting in another, I have finally succeeded in attaining a tolerably complete knowledge of the organisation of this remarkable Crustacean, and at the same time have been enabled to confirm the statements of the late Dr. v. Willemoes-Suhm, as to certain important characteristics omitted in the description given by Dana.

Description.—The length of the largest specimen, a female with remarkably developed marsupial pouch, is 50 mm.

All the integuments are very thin and soft, almost membranous, and hence the general form of the body has in most cases been somewhat altered by the action of the spirit or by accidental pressure.

In the best preserved specimens, the body exhibits (see Pl. IX. figs. 1, 2; Pl. X. fig. 1) a rather slender form, the anterior division being almost cylindrical, the posterior tapering rapidly towards the end.

The carapace is very large, and, as in Gnathophausia, connate with the body in its most anterior part only, but otherwise loosely covering the trunk, all the segments of which are distinctly defined in their whole circumference (see Pl. X. fig. 2), the last being perceptibly larger than the others. It is deeply emarginate posteriorly, without, however, as stated by Dana, leaving any of the segments of the trunk uncovered. The lateral wings are rather produced, and rounded at the tip, extending laterally along the anterior part of the tail and reaching far beyond its first segment, in some specimens almost to the end of the second (see Pl. IX. fig. 1). The inferior margins, too, are very slightly arcuate, covering in part the bases of the legs, and terminating anteriorly in an obtuse angle. The anterior part of the carapace exhibits above an indistinctly areolate appearance, two transverse depressions, one of which may be the cervical sulcus occurring here, partly crossed by a slight longitudinal depression on either side. Moreover, the branchiostegal line, marking off the linguiform dorsal area, is distinctly perceptible (see Pl. IX. figs. 1, 2). The frontal margin is evenly curved, not forming any rostral projection, and leaving the ocular segment uncovered. and somewhat external to the eyes, on either side, a slight projection is seen, apparently corresponding to the infra-orbital spine in other Podophthalmians. On the other hand, no trace whatever can be found of either supra-orbital or of antennal and branchiostegal spines.

The caudal segments do not exhibit any distinctly developed epimera, being evenly rounded both ventrally and dorsally. They rapidly diminish in breadth posteriorly, and