

thickly fringed with short, stiff hairs, between which and the ecephysis stands a two-jointed continuation.

The first pair of gnathopoda (fig. 2*h*) corresponds both with that of *Hippolyte* and that of *Spirontocaris*, and supports a small mastigobranchia and a rudimentary podobranchia.

The second pair of gnathopoda is pediform, five-jointed, and robust; it differs from the same appendage in both *Hippolyte* and *Spirontocaris* in having no basecephysis, but it supports a rudimentary mastigobranchia.

The first pair of pereopoda is short and robust, the carpos being long and distally increasing in diameter, and produced anteriorly a short distance above the propodos; the propodos is long, slightly curved, and not broader than the distal extremity of the carpos; the pollex and dactylos are short. The coxa supports a rudimentary mastigobranchial appendage. The second pair of pereopoda is long, slender, and minutely chelate, having the carpos seven-articulate; the coxa carries a rudimentary mastigobranchial stump. The third pair is long and simple; it has the carpos long, cylindrical, and distally produced above the propodos, which is also long and cylindrical and slightly spinulose on the posterior margin; the dactylos is short, robust and serrate. The coxa supports the stump of a mastigobranchial appendage. The fourth and fifth pairs of pereopoda resemble the third in general structure, but do not carry even the rudimentary stump of a mastigobranchial appendage.

The pleopoda are short, broad, biramose and foliaceous.

The rhipidura is strong and well developed, but the telson in our unique specimen is broken.

*Observations.*—This species appears to be identical with Milne-Edwards' description of *Hippolyte gaimardii* in all points, excepting that in our specimen the second pair of gnathopoda reaches as far as the extremity of the scaphocerite, whereas in his description it is described as being shorter. Milne-Edwards' specimens were obtained near Iceland. It also corresponds very closely with *Hippolyte rectirostris* of Stimpson,<sup>1</sup> which was taken in deep water off the Port of Hakodadi, at the northern extremity of Japan.

*Hetairus tenuis*, n. sp. (Pl. CIX. fig. 3).

Rostrum about two-thirds the length of the carapace, narrow immediately in advance of the frontal margin, and deepening slightly anteriorly, superiorly armed with six teeth inferiorly with three.

Ventral surface of each of the three posterior somites of the pereion armed with a pair of teeth.

Pleon smooth, third somite slightly gibbous and dorsally produced in the median line.

<sup>1</sup> *Proc. Acad. Nat. Sci. Philad.*, January 1860, p. 102.