

in profile, the prominent teeth in this view twelve in number, pretty widely spaced; the surface of the mandible for some distance behind the tubercle scabrous with minute teeth or prickles. There is no trace of a palp.

First Maxillæ.—The pair appear to be connected by a thin membrane; no inner plate was perceived; the outer plate distally cut into three very sharp teeth; the inner margin of the palp straight, serrate, carrying at its apex a small sharp spine-tooth, the outer margin convex, smooth, the distal convex, with slight outward directed serrature; both plate and palp being so bent that the distal margins of one maxilla may antagonize with those of the other.

Second Maxillæ.—These are obscure, probably small and unarmed.

Maxillipeds.—The base is formed by an oblong plate having a flat distal margin with its corners rounded and a small spinule projecting near each of them; a little above the middle of this, and not nearly reaching its distal margin, is placed a small triangular inner plate with rounded apex, and above this are placed the two outer plates, which are smooth-edged, apically narrowed, the outer margin convex, the inner carrying three minute spinules. All these organs are small, thin in texture, and transparent.

The heart has very thin and delicate walls, apparently with three pairs of venous ostia; it reaches just into the sixth or penultimate segment of the peræon.

First Gnathopods.—Side-plates of this and the following segments shallow, but definitely marked, not overlapping; the coalesced first and second segments having separate side-plates for each segment. The first joint in this and the six following pairs of limbs attached at the lower extremity of the side-plate, longer than the three following joints together, and like them apically encircled with one or two rows of minute denticles, the lateral margins smooth; the second joint not longer than broad; the third a little longer than the second, not *under-riding* the fourth;¹ the fourth joint elongate, a little curved, more than half as long as the first, the hinder margin as in the preceding joint a little furred, the fifth joint more than half the length of the fourth, much narrower, a little curved; the distal part (as is the case with this joint in the other limbs) speckled as if with scale-markings; the finger exceedingly small, acute. This and the six succeeding pairs of legs are all arranged on the same plan, and all for the reception of gland-cells, in particular the muscles of the long first and fourth joints being relegated to a mere corner of the distal end, leaving so large a space vacant as to give a rather peculiar appearance to these transparent limbs.

Second Gnathopods.—Similar to the first but longer. Branchial vesicles quite smooth, oval, a little wider than the first joint and about two-thirds as long. The first three joints of the limb rather stouter and slightly longer than in the first pair; the fourth joint as

¹ The rule laid down by Spence Bate, Brit. Mus. Catal. Amph. Crust., p. 89, footnote, that "the meros *always* overrides the carpos in the pereopoda and underrides it in the gnathopoda," is of very limited application to the gnathopods of the Hyperina, although so constant in the Gammarina.