

cavities. During the rhythmical movements of the epipodite-plates, this tube remains immovably exerted, but is immediately withdrawn when the movements are interrupted.

The first pair of gnathopoda (fig. 16) do not exhibit any peculiarity in their structure.

The second pair of gnathopoda (fig. 17), on the other hand, exhibit a form rather different from that in most other Cumacea. Thus, the basal part is rather broad and only very slightly longer than the terminal part. It has several ciliated bristles along the inner edge, and from its external corner four very strong anteriorly curving setæ originate, the outer of which especially is of quite unusual size and densely ciliate. The terminal part is provided with comparatively short bristles, with the exception of its second joint, which has externally a strong anteriorly curving seta similar to those arising from the outer corner of the basal part. The exopodite is rather powerful, with the basal part compressed, oblong, and the terminal composed of five articulations.

The first pair of legs (fig. 18) are about equal in length to the carapace and the two anterior exposed segments of the trunk taken together, and are rather slender, tapering gradually from the base to the tip. The basal joint is, as usual, somewhat dilated in its proximal part, where it contains the strong muscles moving the exopodite, and is fringed along almost the whole inner edge, and the distal part of the outer, with ciliated bristles; moreover, a row of short spines occurs along the distal part at some distance from the outer edge. The terminal part of the leg is much longer than the basal, and is furnished with scattered plumose setæ, especially along the outer edge. Of the joints the antepenultimate and penultimate are the longest and about equal in size. The last joint is slightly compressed but rather narrow, and armed at the tip with about six strong, claw-like spines. The exopodite has much the same appearance as that of the second pair of gnathopoda, except that its terminal part has one joint more.

The second pair of legs (fig. 19) are much shorter than the first, but rather stout, with the basal and terminal parts about equal in length. The ischial joint seems to be quite wanting. The meral joint is rather thick and armed at the end on the inner side with a strong spine. The carpal joint is about twice as long, but much narrower, and has a similar, though somewhat smaller spine at the end. The propodal joint is quite short and unarmed, whereas the terminal is rather elongate, linear, and furnished with numerous stiff spine-like bristles, forming a spreading bunch at the end of the joint. The exopodite does not differ from that of the first pair of legs.

The third pair of legs (fig. 20) in both sexes are furnished with well-developed natatory exopodites. The basal part of the endopodite is more than twice as long as the terminal, and, as in the two preceding pairs, rather dilated to receive the strong muscles moving the exopodite; along both edges there are a number of ciliated setæ. Of the joints composing the terminal part, the three first slightly increase in size, and