The second pair of gnathopoda (fig. 15) are much larger, and also of coarser structure. They originate widely apart, at the outer posterior angles of the carapace, but are suddenly bent inwards so as to meet along the greater part of their length, being more or less closely applied against the ventral side of the body. The basal joint is very large, more than twice as long as the remaining part, and strongly indurated, exhibiting, especially on the lower surface, a distinct nodulose sculpture ; it gradually expands towards the distal extremity, and juts out exteriorly as a large laminar projection of a somewhat triangular or broadly lanceolate form, fringed along the inner edge with a row of short ciliated At the base this joint bears a well-developed natatory exopodite of about half bristles. its length, and composed of a simple cylindrical stem and a five-jointed terminal part, furnished with long natatory setæ. The ischial joint, not defined in the former pair, is distinctly developed, though rather short and simply cylindrical. The meral joint, on the other hand, exhibits a rather peculiar form, being expanded exteriorly to a large securiform projection. The carpal joint is subtriangular in shape, or produced interiorly to an almost right angle bearing a few simple bristles. The propodal joint is quite narrow and articulated to the outer corner of the preceding joint. The terminal joint, finally, is still more narrow, linear, and together with the propodal, admits of being impinged against the interior projection of the carpal joint.

The first pair of legs (fig. 16) are constructed upon the very same type as the last pair of gnathopoda, and in function would seem to be intermediate between gnathopoda and true legs, their basal part being generally closely applied against the ventral side of the body, whereas the terminal part is freely projecting and very mobile, so as partly at least to act as true locomotory organs. They are much larger than any of the other limbs, equalling in length, when fully extended, the carapace and the two first segments of the trunk taken together. The coxal joint, which on the gnathopoda appears but very slightly indicated, is on these limbs distinctly defined (see figs. 1, 3), but so firmly connected with the surrounding parts as generally not to be obtained in connection with the leg by dissection. The basal joint is very large and strongly indurated, being moreover greatly expanded in the proximal part, and forming an obtuse angle at the middle of the inner edge; whereas the distal part is narrowed, without forming any expansion at the apex. The edges of this joint are quite devoid of bristles except at the apex, where a strong ciliated seta occurs exteriorly, and a much smaller one interiorly. The exopodite affixed to the base of this joint is somewhat larger than that of the last pair of gnathopoda, and its basal part is a little dilated at the middle, and is also more strongly indurated. The remainder or terminal part of the leg is very slender, somewhat shorter than the basal, and generally exhibits a geniculate bend at the junction between the carpal and propodal joints. The lengths of these two joints are nearly equal, whereas the two preceding are considerably shorter and thicker. The terminal joint is a little shorter and also narrower than the preceding joint, and provided at the tip with