

hairs. The anterior margin near the carpal extremity has a small lobe, from the surface of which radiate four stiff straight hairs or spines; this lobe appears to be imperfectly articulated to the propodos, and if so must be the homologue of the dactylos.

The second pair of gnathopoda (fig. 2*i*) is pediform. It is slender and consists of four joints, of which the coxa is broad, the second joint is narrow, and near the base, which is considerably more slender than the first joint, is a long uniarticulate basephysis, that is equal in length to the joint to which it is attached, which, I consider represents the basis, ischium, and meros fused into one; the third joint, which represents and probably homologises with the carpos, is short, and the terminal joint, which is probably the propodos, is long, slender and slightly tapering; it is terminally armed with three or four short spinules, and fringed on the inner side with several small bundles of hairs.

The first pair of pereiopoda has, in our specimen, the appendage on the right side missing; that on the left is large, but neither of excessive nor abnormal growth; the ischium unites with the meros by an oblique and semi-anchylosed articulation; the carpos is short, slightly produced on the lower margin and excavate on the anterior margin both above and below the point of articulation with the propodos; the propodos is not broader than the carpos, and measured to the extremity of the pollex it is nearly as long as the carapace, it is nearly cylindrical, with the margins slightly waved and parallel; the pollex is long, straight and tapering, it is slightly oblique to the longitudinal axis of the propodos, and impinges closely against a long, curved, and tapering dactylos, which, when closed, overlies and curves over the extremity of the pollex.

The second pair of pereiopoda (fig. 2*l*) is shorter and more slender than the first; the coxa is the shortest and most robust joint; the basis is short and articulates obliquely with the ischium, projecting on the under surface; the ischium is long, enlarges near the middle, and tapers slightly to the meros, with which it articulates at the extremity; the meros is as long as the ischium, enlarges near the middle, and tapers to the carpos, which is a little longer than the meros and is five-articulate, the articuli at the proximal and distal extremities being the longest, and the three in the middle short and equal; the propodos is nearly as long as the carpos, and of the same diameter at the base, whence it gradually tapers to the extremity, from which a bundle of curiously formed hairs radiates, forming a peculiar brush. The chela is extremely minute, since it is difficult to be determined under a power of sixty diameters, but under a higher power it becomes visible (fig. 2*l''*), the extremity of each finger gradually passing into the condition of a broad hair, and these are flanked on both pollex and dactylos by longer hairs of a similar kind. These hairs (fig. 2*l'''*) appear to be of the same diameter from base to apex, but near the base and for about half their length the surface appears to consist of scales which gradually pass into minute hairs forming a closely packed fur towards the extremity. I counted about twelve in all; they are large in proportion to the size of the chela. In species of *Alpheus* numerous strong but simple hairs not infrequently adorn the