

articulate, and fringed with long ciliated hairs, and the coxa carries a mastigobranchia without a podobranchial plume.

The second pair of gnathopoda (*i*) is long, slender and pediform; it is subcylindrical; the coxa carries a biramose mastigobranchia without a branchial plume attached, but to the membranous articulation are attached two well-formed arthrobranchiæ; the basis carries a long, biarticulate ecpysis, which resembles that on the first pair of gnathopoda; the ischium is long, furred with short hairs and armed on the inner margin with a series of curved hook-like spines and corresponding fasciculi of hairs; the meros is not so long as the ischium, becomes slightly narrowed distally, and is matted with hairs on the inner surface; the carpos is longer than the propodos, which is longer than the dactylos.

The first three pairs of pereiopoda are chelate; the propodos is not broader than the carpos, but the carpos is longer than the propodos; these three pairs successively increase in length as they proceed posteriorly, a circumstance that is due to the gradually increasing length of the carpos, which in each is longer than the meros; the two posterior pairs are subequal, but simple and more slender than the preceding. The first pair is armed on the inner side of the basis with a styliform, anteriorly-directed tooth, and on the outer side with an ecpysis, which is repeated on all the succeeding pereiopoda, but the styliform tooth exists on the second pair only.

There is a biramose mastigobranchia attached to all the pereiopoda except the posterior pair, and the podobranchial plume is absent from all, as well as from the gnathopoda. The arthrobranchiæ are present, two being attached to all the pereiopoda, except the posterior pair, and one only existing on the penultimate pair, while a single pleurobranchial plume pertains to each from the first to the fifth pair. The arrangement may be represented by the following formula:—

Pleurobranchiæ,	.	.	.	1	1	1	1	1	1	1	1
Arthrobranchiæ,	.	.	.	2	2	2	2	2	1	...	
Podobranchiæ,	.	.	.	...	...	...	...	...	...	...
Mastigobranchiæ,	.	.	.	1	1	1	1	1	...	...
				h	i	k	l	m	n	o	

On the ventral surface in both our specimens, between the posterior pair of pereiopoda, is a large thelycum, consisting of a dichotomous, calcareous capsule, which extends forwards as far as the base of the antepenultimate pair of pereiopoda, whence projects two large, leaf-like, membranous appendages (Pl. XXXII. fig. 4 ♀). They appear to be connected with the internal organs by means of foramina in the floor of the capsule, and have no connection whatever with the fifth pair of pereiopoda.

The five anterior pairs of pleopoda are formed on one general type. They consist of a large triangulate basal joint attached to the ventral surface of the pleon, and terminating in two leaf-like branches, both of which are smooth in the median and posterior portions, but strong and multiarticulate at the margins, which are posteriorly