ceding, and neither of these carries a basecphysis or mastigobranchia, and the posterior is without any branchial plume at all.

The branchiæ somewhat resemble in structure those of Penzus, but the dendritic branches appear to be more simple.

The following table shows their general arrangement:-

| Pleurobranchiæ, | . | . | . | 1 | 1 | 1 | 1 | 1 | 1 | $\ldots$ |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Arthrobranchix, | . | . | . | 1 | 2 | 2 | 2 | 2 | 2 | $\ldots$ |
| Podobranchiæ, | . | . | . | 1 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| Mastigobrauchiæ, | . | . | . | 1 | $\ldots$ | 1 | 1 | 1 | $\ldots$ | $\ldots$ |
|  |  |  |  | h | i | k | 1 | m | n | o |

The fourth pair of pereiopoda has two well-developed plumes, but one is pleurobranchial, interstitial between the fifth and sixth somites, and in one or more instance I have observed a rudimentary ecphysis attached to the basisal joint.

This genus bears some external resemblance to Aristeus, but differs in having two long flagella to the first pair of antennæ, in the form of the synaphipod and mastigobranchiæ, in the number of the branchiæ, in having no podobranchia except the one attached to the first pair of gnathopoda, and in the ultimate structure of the branchiæ.

In some of these points it corresponds with Philonicus.
Geographical Distribution.-As yet we only know one species of this genus, which was taken off the east coast of South America.

## Artemesia longinaris, n. sp. (Pl. XL.).

Carapace dorsally smooth and produced anteriorly to a horizontal rostrum that is half the length of the animal, measured from the orbit to the posterior extremity of the telson. Rostrum crested over the base and armed there with nine or ten teeth, from which to the apex it is smooth both above and below. The pleon is smooth to the fourth somite, which is dorsally angulate. The fifth and sixth somites are slightly carinated, the carina on each being produced posteriorly to a small tooth.

The ophthalmopod reaches nearly to the extremity of the serrate crest, and the ophthalmus is ovate.

The first antennæ carries a prosartema that does not reach to the extremity of the ophthalmopod, and a stylocerite that is short and almost rudimentary; the peduncle reaches to about half the length of the antennæ, supporting two flagella that are twice the length of the rostrum.

The second pair of antennæ carries a scaphocerite that reaches as far as the distal extremity of the peduncle of the first pair, and a flagellum that is once and a half as long as the animal.

The pereiopoda are slender and not very long.

