

each other, without being in contact, in the median line for the purpose of supporting the vas deferens.

The first pair of pleopoda is long and single-branched, and from near the base of the first joint a protuberance projects that supports the petasma, which consists of a large, ovate, membranous plate that is hooked by a series of cincinnuli to its fellow on the opposite pleopod. The second pair of pleopoda is two-branched; the outer or posterior branch is long, and resembles that of the first pair, the anterior or inner branch is small, short, and furnished at the base with a broad, thin, hollow, scale-like appendage; it is firm, rigid, and forms a sexual distinction. All the other pleopoda are similar to those in other species.

The outer branch of the tail-fan is long, narrow, and very nearly double the length of the telson, which is tapering, fringed at the margins with a row of short hairs and three or four small spines.

This form was taken associated with two or three other species, among which was *Hemipenæus tomentosus*, and in spite of the great difference in the length of the rostrum, I am greatly inclined to believe that the latter will prove to be the female of *Hemipenæus virilis*, and I only hesitate so to regard them because it is more common for the male animal to possess the stronger characters. *Hemipenæus tomentosus* appears to be intermediate in form between *Hemipenæus virilis* and *Hemipenæus semidentatus*.

*Hemipenæus semidentatus*, Spence Bate (Pl. XLIX. fig. 1).

*Aristeus semidentatus*, Sp. B., *loc. cit.*, p. 189.

Rostrum long and slender, about two-thirds the length of the carapace, rising slightly towards the anterior extremity; armed with three teeth on the dorsal surface just over the orbit. Pleon posteriorly compressed, slightly carinated, and produced to a small tooth at the posterior extremity of the last three somites.

Telson tapering to a sharp point, dorsally grooved and laterally compressed, having the margins fringed with hairs and armed with three small movable spines.

The ophthalmi are rather large, orbicular, and supported on short slender ophthalmopoda that narrow gradually to the base.

The first pair of antennæ has a peduncle that is rather more than half the length of the rostrum; the first joint has the stylocerite traversing the outer margin, resembling a strong ridge, and terminating in a sharp tooth at the distal angle, and on the inner side the prosartema is reduced to a tubercle tipped with a tuft of short hairs. The shorter flagellum is about the length of the second joint, and the longer one is about the length of the animal.

The second antenna has a prominent phymacerite, and supports a membranous scaphocerite that is rigid on the outer margin and reaches beyond the extremity of the