The length of the injured fragment, which consists of the anterior region, is about 34 mm ., and its diameter at the base of the paleole 3.5 mm . The species is therefore of considerable size, since the bristled region only is present.

The snout agrees in general characters with the ordinary forms, the oblique (ocular?) ridges being very prominent. The broad double eminence between the branchiæ is well marked. There are seventeen pairs of bristle-bundles. The first or paleolæ are long tapering organs, with a slight curve toward the tip, which has a trace of a wing on each side, as in allied species. This condition doubtless indicates the morphology, viz., that each group consists of one of the lateral bristle-tufts modified and directed forward. The lateral bristles behind the foregoing present a narrow wing on each side, and their extremities are long, finely tapered and curved. The wing is just perceptible on the slender intermediate forms.

The hooks (Pl. XXVIIA. fig. 1) have four or five large teeth, with a process bencath the lower one, and the curves of the terminal or anterior inferior process are characteristic. Five seems to be the most common number of teeth. In shape these hooks come nearest to the Canadian form of Amphicteis gumneri, and it is remarkable to notice how closely all these forms approach each other.

The specimen occupied a massive tube of dark greyish mud, lined internally by chitinous secretion. The diameter of the tube is 11 mm ., and the length of the longest piece 80 mm ., but part of this is less bulky than the foregoing. Here and there amongst the mud of the tube externally the same rounded ochreous arenaceous Foraminifera occur as in Myriochele lieeri. ${ }^{1}$ The mud, moreover, shows numerous sponge-spicules and a few Diatoms. The grains of sand forming the tests of the arenaceous Foraminifera are very minute.

The hypoderm of Amphicteis sarsi is moderately developed, except over the nervearea, where it is thicker. The nerve-cords are placed somewhat deeply with regard to the surface; for the circular coat bends inward so as to cause them to bulge into the perivisceral chamber. The size of the longitudinal ventral muscles is considerable.

Amphicteis wyvillei, n. sp. (PI. XXVIIA. fig. 2).
Habitat.-Trawled at Station 147 (midway between Prince Edward and Kerguelen Islands), December 30, 1873 ; lat. $46^{\circ} 16^{\prime}$ S., long. $48^{\circ} 27^{\prime} \mathrm{E}$.; depth, 1600 fathoms; bottom temperature $34^{\circ} 2$, surface temperature $41^{\circ} 0$; sea-bottom, Diatom ooze.

A form of considerable size, though not quite complete posteriorly, measuring 39 mm . in length and 3 mm . in diameter exclusive of the feet. The vicissitudes connected with its removal from so great a depth have injured the specimen.

The head agrees in general characters with that of Amphicteis gunneri, and the first

