arch superiorly, and a median ventral plate as in *Thelepus*. It forms a well-marked ridge behind the cephalic rim dorsally, but this gradually becomes absorbed on each side into a flattened area behind the infra-oral lobe. The next three segments differ from those of *Thelepus* in presenting a process or lobe jutting forward from the anterior border on each side, and in having a long simple branchia passing in each case from the same border (anterior) a little dorsad of the lobe just mentioned. The branchiæ are proportionally large, massive, and long, quite as large as those of the Ampharetidæ. Each springs by a broad base from the extreme front of the segment to which it belongs, and tapers to a blunt point, the entire surface being crenate, and marked by a ventral line, probably from the blood-vessel. They thus differ from the frilled and deeply (dorsally) grooved tentacles. The posterior pair are nearest the middle line of the dorsum, only a brief interval separating them; the next are the first or anterior pair, which have a wider space between them; while the second pair are most external in position, the inner border of the base being quite clear of the third pair, and only slightly overlapping the outer edge of the anterior pair. This condition of the respiratory system seems to be unique in the Terebellidæ, combining, as already stated, the branchial characters common to another family, viz., the Ampharetidæ. The three segments alluded to have rudimentary bristle-tufts. Each of the next two rings bears a small bristle-bundle superiorly, then a rounded papilla, and inferiorly a short hook-row, the whole forming a lateral band. The papilla is visible in the next segment, but thereafter disappears; the ordinary condition of the foot being a setigerous process dorsally with its tuft of bristles, and then a long uncinigerous pad or ridge.

About a dozen anterior segments show ventral scutes, the glandular tissue of which is not circumscribed as in *Thelepus*, but passes upward at each side, and thus gives a character to the region.

Twenty pairs of bristles are visible behind the three branchial segments. The bristles have long straight shafts with a well-marked band a little above the commencement of the wings. The latter are fairly developed, and merge distally into the tapering tip.

The hooks (Pl. XXVIIIA. fig. 13) differ from those of *Thelepus* in having the anterior mucro dorsad of the tip (anterior inferior process). The mucro is also longer. A large and a small tooth occur above the great fang, and a series of striæ are present near the posterior angle.

The tube, in which the fragment was entirely enveloped, has an internal lining of translucent chitinous secretion invested by a remarkable *chevaux-de-frise* composed of Hexactinellid sponge-spicules, the whole forming a glassy translucent investment. It does not follow that the animal specially arranged these for defensive purposes, since they were probably the only materials at hand, a supposition the more likely as the transparent connecting medium had entangled no other organism of note. A certain