

The branchiæ in the best specimen measure about 6 mm. in length, and, as removed from the tube, present nearly straight radioles. The latter are free, with the exception of the narrow basal region, and are supplied with richly ciliated pinnæ, which, instead of gradually diminishing toward the tip, retain considerable length, so that in profile the tip is almost clavate. Each radiole tapers toward the extremity, and ends in a slender, smooth, free filament.

The operculum (Pl. LV. fig. 6) extends a little beyond the tips of the branchiæ, and consists of a somewhat small, circular, whitish plate strengthened by a calcareous deposit, and having a yellowish line at its base. It is supported on a hollow dilatation, shaped like a wine-glass, the narrow part being attached to the long slender pedicle, which has an enlargement at the junction, with several crenations beneath. The entire organ is longer than in *Placostegus tricuspilatus*, Sowerby. No trace of an abortive operculum occurs on the left side.

None of the specimens is sufficiently perfect to show the exact condition of the cephalic collar, or the number of the tufts of thoracic bristles. The latter are pale yellowish, the dorsal forms having rather elongated tips (Pl. XXXA. fig. 25). The posterior bristles, again, possess elongated shafts and short extremities with broad wings (Pl. XXXA. fig. 26), and the curvature at the tip is pronounced.

The anterior hooks (Pl. XXXA. fig. 27) present a shape similar to those of *Serpula philippensis*, and have six well-marked teeth above the great fang, which projects considerably beyond the others. The dorsal outline shows a long concavity. The prow below the great tooth is slightly developed, though it is much more so than in *Serpula philippensis*. The body of the hook is crossed by numerous striæ, which form the usual angle with the teeth. The posterior uncini possess a more elevated crown, and the prow beneath the great fang is less developed.

The dense tube (Pl. LV. fig. 5) is fixed to manganese nodules or other similar concretions. The attached surface is flattened, the rest is irregularly rounded, a deep longitudinal groove running on each side a little above the flattened basal region (in transverse section), so as to cut the transverse ridges into isolated bars. From this groove the ridges are continued dorsally, and in front often with a direction somewhat forward and inward. In the same region of the tube the ridge has a slight mucro or thickening, projecting forward in the middle line, the anterior margin of the ridge on each side thus presenting a slight concavity. Behind the foregoing the transverse ridges are nearly straight, while posteriorly the mucro of the dorsal ridge points backward, and the lateral thickening on each side is very decidedly marked. Internally the surface of the tube is perfectly smooth and white.

In transverse section of the body-wall posteriorly, a firm but thin cuticle, and a very thin hypoderm are visible. It is difficult to distinguish the circular muscular coat as a separate layer. The longitudinal dorsal muscles form long plates, which extend upward