

The longitudinal plication and the formation of pouches is very irregular, and as usual is more evident on the outer than on the inner surface of the sac. The strong internal longitudinal bars and their stout papillæ make the meshes seem smaller than they really are, an effect which is increased also by their great transverse elongation (Pl. XXVIII. fig. 7); the stigmata, however, are of a fair length. The connective ducts, between the external network of the branchial sac and the vessels of the mantle, are very wide, and are compressed so as to appear like flat bands.

The dorsal lamina is wide and strong, but it is not toothed (Pl. XXVIII. fig. 11). The tentacles (figs. 9 and 10, *tn.*) are numerous and very large. They spring from a projecting pad, which forms a ring round the base of the branchial siphon. The dorsal tubercle (Pl. XXVIII. fig. 10) is very large, and lies in a triangular peritubercular area. It is peculiar, on account of the extent to which the horns are coiled; the two spirals fill the whole internal area of the organ.

The viscera upon the left side of the branchial sac are large. The alimentary canal has the usual course, but the intestinal loop extends for a considerable distance anteriorly, and is bent round dorsally so as almost to meet the rectum, and thus enclose a large circular area which is occupied by a mass of renal vesicles. The genital organs are on the intestinal loop in its most anterior part. Their ducts are conspicuous along the posterior edge of the terminal part of the intestine.

Two specimens of this large species were obtained at Simon's Bay, Cape of Good Hope, in from 10 to 20 fathoms.

### *Hypobythius*, Moseley.

*Hypobythius*, Moseley, On two new Forms of Deep-Sea Ascidiæ, obtained during the Voyage of H.M.S. Challenger, Trans. Linn. Soc., ser. ii., Zool., vol. i. p. 287.

*Body* cup-shaped or pyriform, pedunculated, attached. Apertures circular, not lobed.

*Test* cartilaginous, but soft and thin.

*Branchial Sac* not folded, and with no internal longitudinal bars. Stigmata small, rounded, and irregularly placed.

*Dorsal Lamina* a plain membrane.

*Viscera* forming a compact elongated mass on the dorsal edge of the branchial sac.

This genus was founded by Moseley in 1876, but was not characterised apart from the description of the single species then known, *Hypobythius calycodes*. A damaged specimen of a second species, *Hypobythius moseleyi*, was found recently in the collection, and is described below.

There is considerable difficulty in referring this remarkable genus to its proper position, and possibly it ought to be made the type of a fifth family of Ascidiæ Simplicis, the Hypo-