

The folds in the branchial sac are formed merely by the approximation of internal longitudinal bars, which are very numerous, but not wide (Pl. XXII. figs. 9 and 10, *i.l.*). The transverse vessels are of two sizes, and three of the smaller size occur between two larger ones. The meshes are elongated antero-posteriorly, and are usually divided by a narrow horizontal membrane attached to each fine interstigmatic vessel where they intersect (Pl. XXII. fig. 10, *h.m.*).

The dorsal tubercle, which is ovate in outline and very small, is situated at the foot of the deep peritubercular area. The intestine forms a wide loop. The polycarps are few, only three or four apparently upon each side of the body. The endocarps, however, are very numerous.

In some respects this species shows affinities with certain species of *Styela* (e.g., *Styela glans*, *Styela oblonga*, and *Styela flava*), but it is quite distinct from them all; and although the polycarps are few, the intestinal curve is like that of a *Polycarpa*.

Three specimens of this species were discovered adhering to the clumps of spicules projecting from the sides of a large Hexactinellid sponge. They differ somewhat in external form, probably on account of their mode of attachment.

The locality is off Ki Island, in the Malay Archipelago, at Station 192; September 26, 1874; lat. 5° 42' S., long. 132° 25' E.; depth, 129 fathoms; bottom, mud.

*Polycarpa pilella*, Herdman (Pl. XXII. figs. 11–15).

*Polycarpa pilella*, Herdman, Prelim. Rep., Proc. Roy. Soc. Edin., 1880–81, p. 73.

*External Appearance.*—The body is a little variable in shape, but is generally spherical or ellipsoidal, occasionally rather pyriform, the posterior end being the narrower of the two; it is not compressed, and is erect; the anterior end is wide and convex, and the body is attached by the posterior end. The apertures are both at the anterior end; they are moderately far apart, and are not conspicuous.

The surface is entirely covered by a layer of sand. The colour is yellowish-brown.

Length of the body, 6 mm.; breadth of the body, 4 mm.

*The Test* is thin, but strong.

*The Mantle* is rather strong. The muscular fibres are delicate, but very numerous, forming a close network.

*The Branchial Sac* has four folds upon each side. The transverse vessels are all equal in size. There are about eight internal longitudinal bars on the folds, and the same number in the interspaces. The meshes are elongated antero-posteriorly, and contain each three stigmata.

*The Dorsal Lamina* is a plain membrane with an irregular edge.

*The Tentacles* are filiform; there are about twenty large ones, with one or two smaller between each pair of larger ones.

*The Dorsal Tubercle* appears to be very variable in shape.