

square, and contain about four stigmata each. They are always divided transversely by a delicate membrane.

*The Dorsal Lamina* is formed of a series of small tentacular languets.

*The Tentacles* are compound, they are few, and are placed long and short alternately.

*The Dorsal Tubercle* is simple; it is rudely cordate in outline, with the opening anterior, and both horns turned inwards.

This curious little species is very unlike a *Cynthia* in external appearance. It is irregularly ovate in shape, is apparently unattached, and has the entire body covered with a close coating of sand grains (Pl. XVI. fig. 6). The inconspicuous apertures are not lobed but are cross-slit, or have each the appearance of four short slits radiating from a central point.

The branchial sac has six folds upon each side, but they are not very large, and have only five internal longitudinal bars on the outer slope of each. The occasional very wide transverse vessels are curious (Pl. XVI. fig. 7, *tr.*). Each looks exactly as if a complete row of stigmata had been obliterated, especially as the delicate transverse membranes stretch along them exactly as they do over the ordinary meshes. This branchial sac is a little irregular in some other respects. Here and there we find one of the ordinary transverse vessels (Pl. XVI. fig. 7, *tr.*) interrupted for a short distance, and two meshes thrown into one, thus producing a few very long stigmata.

The dorsal lamina is formed of languets alone (Pl. XVI. fig. 7, *l.*). There is no membrane uniting their bases. They are placed one opposite each transverse vessel, and one opposite each horizontal membrane.

The dorsal tubercle is simple, and is more like the tubercle of an *Ascidia* than of a *Cynthia*. The aperture is anterior, and the horns are turned inwards but are not coiled (Pl. XVI. fig. 8, *d.t.*). The peritubercular area is shallow.

The tentacles are compound, and are few in number. They are of two sizes, and are very similar to those of the next species, *Cynthia irregularis*.

Several specimens of this little species were obtained in Torres Strait, between Australia and New Guinea, at Station 186; September 8, 1874; lat. 10° 30' S., long. 142° 18' E.; depth, 1 to 8 fathoms; bottom, coral sand.

*Cynthia irregularis*, Herdman (Pl. XVI. figs. 10–12).

*Cynthia irregularis*, Herdman, Prelim. Rep., Proc. Roy. Soc. Edin., 1880–81, p. 60.

*External Appearance.*—The shape is very irregular. The body is attached to a fragment of a shell by the right side near the dorsal edge and half way up from the posterior end. The posterior end is small, and nearly flat; the anterior end is broad, and is deeply cleft between the large divergent siphons, on the extremities of which the