

are especially prominent in a band running along the lamina in about the middle of its breadth (Pl. XXXIII. fig. 9).

I was unable to make out the condition of the dorsal tubercle without cutting up the single specimen in the collection more than seemed proper.

One specimen of *Ascidia cylindracea* was trawled off Twofold Bay, Australia, at Station 163; April 4, 1874; lat. $36^{\circ} 56' S.$, long. $150^{\circ} 30' E.$; depth, 120 fathoms.

Ascidia despecta, Herdman (Pl. XXXIII. figs. 10–12).

Ascidia despecta, Herdman, Prelim. Rep., Proc. Roy. Soc. Edin., 1879–80, p. 715.

External Appearance.—The shape is oval, the anterior end being narrow while the posterior is wider and rounded. The dorsal edge is rather more convex than the ventral. The body is somewhat compressed laterally and is attached by the posterior half of the left side. The branchial aperture is terminal, or almost so; the atrial is not distant, being on the dorsal edge, about one-fourth of the way from the anterior to the posterior end; both apertures are sessile and not conspicuous.

The surface is covered with small soft projections, giving it a rough appearance. The colour is grey.

Length of the body, 1.7 cm.; breadth of the body, 1 cm.

The Test is thin, and nearly transparent, showing fine vascular ramifications. The main trunks enter near the centre of the area of attachment. At the posterior end of the left side the test is prolonged into a few short tufts for attachment.

The Mantle is of moderate thickness.

The Branchial Sac is not plicated longitudinally, and it is rather strong. The transverse vessels are narrow, and are all of much the same size. The internal longitudinal bars are stout, and bear large rod-like papillæ at the corners of the meshes; there are no intermediate ones. The meshes are slightly longer transversely than antero-posteriorly; each contains three to five stigmata, generally four.

The Dorsal Lamina is wide, and is transversely ribbed; the ribs form rather large projections on the free margin, which is otherwise plain.

The Tentacles are large and numerous, about twenty to twenty-five in number; they are all of one length.

This is a soft, roughish, dull grey species, of an ovoid form, with inconspicuous apertures. It is semi-transparent, the outline of the mantle showing through the test pretty distinctly (Pl. XXXIII. fig. 10).

The branchial sac is rather strong, the stigmata being small and the vessels thick (Pl. XXXIII. fig. 11). The transverse vessels are all of one size, and the stigmata are regular, short, and elongate-elliptical in shape. The papillæ are rod-shaped, stout, and prominent.