

spicules. A few bladder cells are present in some parts of the test. The spicules are large and rather irregular in shape. They are mostly stellate, but the rays are often of different sizes and of irregular form.

*The Mantle* is strong. Both longitudinal and transverse bands are present.

*The Branchial Sac* has four rows of small stigmata. The transverse vessels are wide, and have muscle fibres.

*The Tentacles* are numerous, they are of two sizes, and are placed alternately.

*Locality*.—Station 142, December 18, 1873; lat. 35° 4' S., long. 18° 37' E.; depth, 150 fathoms; bottom, green sand; bottom temperature, 47° F.

Several small colonies of this species were dredged at Station 142, to the south of the Cape of Good Hope; the two largest are figured (Pl. XXXIX. figs. 12, 13). They are of irregular form and are attached to worm tubes, Polyzoa, and other objects which they have grown completely around. The colonies are of considerable thickness for their size. They are quite opaque, and are of a warm grey colour with a slight yellowish tinge in places.

The Ascidiozooids show externally as small circular lighter coloured dots (Pl. XXXIX. figs. 12, 13) less than 0.5 mm. in diameter. The common cloacal apertures are slit-like, and are rather more than 1 mm. in length.

The test cells are unusually large and conspicuous. They are mostly of rounded forms and are very granular. The spicules are irregular in shape, size, and distribution (Pl. XXXIX. fig. 15). As a rule, however, they are more abundant in the surface layer of test than deeper down. They are not arranged so as to mark out Ascidiozoid areas as they are in *Leptoclinum tenue* and some other species. The spicules even in the surface layer of the test are not so numerous as they are in most colonies of the Didemnidae.

The branchial sac is fairly large. At its posterior end there is a part of its wall lying behind the fourth row of stigmata, and about equal to two rows of stigmata in breadth, which is not pierced by any apertures (Pl. XXXIX. fig. 14). The stigmata are short, some of them are nearly circular, and they are sometimes placed irregularly. The ciliated cells are distinct. The muscle bands in the transverse vessels are unusually strong (Pl. XXXIX. fig. 14, *tr.*). There are usually eleven or twelve stigmata in the widest row. In one sac examined there were five rows on each side, but some of the stigmata were irregular. The branchial siphon is small, but the sphincter is fairly strong.

The endostyle is long and narrow. Its course is straight (Pl. XXXIX. fig. 14, *en.*) The tentacles are rather large and numerous.

The alimentary canal is moderately large. It forms a long narrow loop. The stomach is small. The rectum contains dark-coloured faecal pellets. It crosses the abdomen and lower part of the thorax obliquely from the ventral to the dorsal edge.