

The *Ascidiozooids* are fairly large and numerous. They are very conspicuous externally, but are not arranged in definite systems. No common cloacal apertures are present. The bodies of the *Ascidiozooids* are short, and are divided into thorax and abdomen.

The *Test* is rather soft, and tears easily. It is of a greyish-white colour, and is nearly opaque. The matrix contains small test cells and numerous calcareous spicules. There are no bladder cells. The spicules vary somewhat in size. They are of rather regular stellate forms.

The *Mantle* is fairly muscular. The branchial sphincter is well developed.

The *Branchial Sac* is small. It has three rows of small but regularly arranged stigmata.

The *Alimentary Canal* is rather large. The stomach is globular and smooth-walled.

*Locality*.—Station 311, January 11, 1876; lat. 52° 45' 30" S., long. 73° 46' 0" W.; depth, 245 fathoms; bottom, blue mud; bottom temperature, 46° F.

Several small colonies of this species are attached to a worn fragment of Coral trawled at Station 311, at the western end of the Strait of Magellan, from a depth of 245 fathoms. The dimensions given above are those of the largest colony, the others are considerably smaller. They are all incrusting forms (Pl. XXXIX. fig. 16), and resemble the specimens of *Leptoclinum tenue* closely in their external characters. The colour, however, is distinctly greyer, and the *Ascidiozooids* are rather larger, and are placed further apart in the present species. The arrangement of the spicules in the surface layer of test is quite different in the two cases (compare figs. 10 and 17 in Plate XXXIX.). In the present species they are uniformly distributed, except immediately around the branchial apertures, where they are more numerous. The edges of the six lobes are especially strengthened by closely placed spicules. The branchial apertures are regularly six-rayed (Pl. XXXIX. fig. 17, *br.*).

The spicules are mostly stellate, with many narrow pointed rays (Pl. XXXIX. fig. 20). Some, however, have the rays shorter and broader so as to produce a more nearly spherical form of spicule. The test cells are very inconspicuous. Most of them are small and rounded, but a few elongated and some larger branched forms occur.

The thorax and abdomen in the body of the *Ascidiozooids* are distinctly separated (Pl. XXXIX. fig. 18), and are of about the same size. There are two strong retractor muscles, one running backwards on each side from the branchial sphincter, along the dorsal edge of the thorax.

The transverse vessels of the branchial sac are narrow (Pl. XXXIX. fig. 19, *tr.*); they are usually of the same size as the fine longitudinal vessels. The ciliated cells bounding the stigmata are distinct (Pl. XXXIX. fig. 19, *sg.c.*). The endostyle is very large and conspicuous (Pl. XXXIX. fig. 18); its course is straight.

The alimentary canal forms a wide loop. The œsophagus leaves the dorsal edge of the posterior end of the branchial sac, and runs directly backwards to the large smooth-