

transversely. The meshes are square or slightly elongated longitudinally, and contain four to six stigmata each.

*The Dorsal Tubercle* is small and circular in outline. It lies in a nearly symmetrical peritubercular area.

*Locality*.—Station 233A, May 19, 1875; lat.  $34^{\circ} 38'$  N., long.  $135^{\circ} 1'$  E.; depth, 50 fathoms; bottom, sand.

This species is closely allied to the common and widely distributed *Ciona intestinalis*. A single specimen was dredged off Kobé, Japan, from a depth of 50 fathoms, the same locality in which *Ciona savignii* was found (see Part I. p. 236).

The body, as figured and described above, is evidently greatly contracted, especially at the anterior end (Pl. XLIX. fig. 11). Probably when living and expanded in sea water it would attain twice its present length, and under these circumstances the points of attachment to the Annelid tubes, which are now nearer the anterior than the posterior end, would be probably about the junction of the middle and posterior thirds of the body. The anterior end when expanded would certainly be much narrower than at present, and probably would be represented merely by the narrow region lying between the apertures. The posterior extremity has probably changed little. The surface would, when the body became expanded, lose much of its irregularity. The anterior corrugations would certainly disappear, but the characteristic roughness due to projections of the test would of course remain. This roughening of the surface distinguishes the test very clearly from that of *Ciona intestinalis* and of *Ciona savignii*, and reminds one of the appearance presented by *Ascidia aspersa*, O. F. Müller.

When the test is removed the body presents a most characteristic appearance (Pl. XLIX. fig. 12). The anterior end is narrow and bears the two apertures. The posterior is very wide, and is evenly rounded like the posterior end of the test. The whole body is thrown into a strong curve having the convexity dorsal, but this is no doubt partially due to the state of contraction of the specimen. The siphons are prominent and the branchial is twice as wide as the atrial. The apertures are distinctly lobed, and the red ocelli are conspicuous. The sphincters surrounding the siphons are strong, and are continued posteriorly as a series of circular bands running round the anterior end of the body for a short distance below the siphons. Behind this point the circular muscles are feebly developed, and they are almost entirely absent on the middle of each side. Along the dorsal and ventral edges and round the posterior end of the body they are rather stronger and run irregularly. The longitudinal muscle bands are very powerful, and are ten in number, five on each side. They are more closely placed ventrally than dorsally, and they approach more nearly to the ventral edge than to the dorsal, the most dorsally placed band being placed near the middle of each side. These longitudinal bands make their appearance from underneath the anterior circular muscles, and run backwards,