

*The Mantle* is thin, but moderately muscular. It is very transparent. The muscle bands are very narrow, and run most of them in a transverse direction.

*The Branchial Sac* is of considerable size and fairly strong. The transverse vessels are narrow and all of one size. The internal longitudinal bars are of moderate strength. They are rather irregular in their course. The meshes are slightly elongated transversely, and contain each about four stigmata.

*The Endostyle* is narrow, but is conspicuous through the mantle. It is long and straight.

*The Dorsal Lamina* is a plain membrane with neither marginal teeth nor transverse ribs. It is usually, however, somewhat corrugated or crimped at its margin.

*The Tentacles* are sixteen in number. Four are very long and meet in the centre of the branchial aperture when laid flat. Four others alternating with these are about half as long, while the remaining eight are very short.

*The Dorsal Tubercle* is a small aperture with prominent edges placed a short distance in front of the anterior end of the dorsal lamina. There is usually no well-marked peritubercular area.

*Locality*.—Station 208, January 17, 1875; lat.  $11^{\circ} 37' N.$ , long.  $123^{\circ} 31' E.$ ; depth, 18 fathoms; bottom, blue mud.

Only one specimen of this large and handsome species was obtained. It occurs growing over a very irregularly shaped mass of sponge trawled from 18 fathoms, at Station 208, near the Philippine Islands. The colour is a striking feature (Pl. I. fig. 1), and is probably not very different from what it was when living. The darkest areas are those which lie between the rows of branchial apertures and are formed by the posterior parts of the Ascidiozooids. The anterior ends are decidedly lighter coloured (Pl. I. figs. 2, 3), and show the circular open branchial apertures clearly. Under a lens or low power objective they also show the anterior extremity of the endostyle (Pl. I. fig. 3), the peripharyngeal band, the nerve ganglion, and an inner circle, which seems to be the line of insertion of the sixteen tentacles, having four marks, placed, one dorsally, one ventrally, and two laterally—these are probably the bases of the four largest tentacles. Further from the branchial aperture may be noticed three short radially directed lines upon each side; these are probably the anterior extremities of the internal longitudinal bars of the branchial sac. Over the whole of this anterior end of the Ascidiozoid little clumps of pigmented blood-corpuscles may be found scattered irregularly. From this description of the figure (Pl. I. fig. 3) it is obvious that a considerable amount of the anatomy of the Ascidiozoid may be made out simply from a surface view slightly enlarged. This is very rarely the case with alcoholic specimens of Compound Ascidians.

In some parts of the colony the Ascidiozooids are arranged in small nearly circular or elliptical systems, which suggest the arrangement in the genus *Botryllus*, but in other