

bands of considerable size. Weaker longitudinal muscles are also present. The branchial sphincter is strong.

*The Branchial Sac* is long and rather narrow. It is very simple in its structure, consisting merely of transverse and longitudinal vessels intersecting at right angles, so as to form a large-meshed network. The meshes are a little longer vertically than transversely. The transverse and the longitudinal vessels are of the same size. They contain a few rather large muscle fibres.

*The Tentacles* are large. There are at least twelve, and they are all of much the same size.

*The Dorsal Lamina* is formed of a series of closely placed, irregularly triangular languets.

*The Alimentary Canal* is large.

*The Reproductive Organs* are large. They extend behind the intestine in the form of a long post-abdomen. Both ova and spermatoc vesicles are present.

*Locality*.—Station 147, December 30, 1873; lat.  $46^{\circ} 16' S.$ , long.  $48^{\circ} 27' E.$ ; depth, 1600 fathoms; bottom, Diatom ooze; bottom temperature,  $34^{\circ} 2 F.$

This interesting form is one of the few deep-sea Compound Ascidiaceans. It was trawled at Station 147, between the Cape of Good Hope and Kerguelen Island, from a depth of 1600 fathoms.

In its fungus-like form it resembles some of the species of *Coelocella*. The shape, however, varies considerably in the six specimens. One of the colonies was considerably damaged; a second is very small (Pl. XXI. fig. 3). The remaining four are of about the same size. In these the head is decidedly discoid in one specimen only (Pl. XXI. fig. 2). In two others it is flattish above and conical below. In the other colony it is in an intermediate condition. The three figures (Pl. XXI. figs. 1, 2, 3) show the amount of difference in the specimens. The upper surface of the head is irregular, being raised into slight elevations formed by the anterior ends of the Ascidiocysts. In some places the free edge of the disk is bent downwards so as to form a prominent ridge around the lower surface. The peduncle is thickest at the base of attachment, where it spreads out considerably. In one case this expanded base is over 13 mm. in diameter. Shells of Foraminifera and fragments of manganese are attached to and imbedded in the lower part of the peduncle. From the base the peduncle tapers upwards to its narrowest point just below the head, and then expands rapidly to pass into the under surface (see Pl. XXI. fig. 1).

The Ascidiocysts are very large; including the reproductive organs they measure in some cases as much as 13 mm. in antero-posterior extent (see Pl. XXI. figs. 4, 5). They are, however, rather narrow; the widest point is in the abdomen where the stomach is placed. The Ascidiocysts are not arranged with any regularity. They seem, however,