

*The Test* is clear and transparent, and is thin all over the body.

*The Mantle* has the musculature very distinct. The first and second bands join on the sides of the body, but are incomplete dorsally. The third, fourth, fifth, sixth, and seventh bands are distinct from one another, and are only interrupted in the median ventral line. The third band approaches the fourth on the mid-dorsal line, but does not fuse with it. There are short curved bands at the ends of the transversely elongated branchial and atrial apertures, and there are also a few very slight short muscle bands in the median dorsal line immediately in front of the atrial aperture.

*The Endostylé* is conspicuous and straight. It extends forwards in front of the branchial aperture.

*The Dorsal Lamina* is rather narrow. It is attached as far back as the fifth muscle band.

*The Dorsal Tubercle* is very simple, and of elliptical outline. The nerve ganglion is placed immediately behind it.

*The Visceral Mass* is unusually small.

*Locality*.—March 16, 1875; Station 222, north of the Admiralty Islands, Pacific; lat.  $2^{\circ} 15' 0''$  N., long.  $146^{\circ} 16' 0''$  E.; surf. temp.  $82^{\circ} 8$ ; one specimen.

This little specimen from the surface of the tropical Pacific is in external appearance somewhat like the aggregated form of *Salpa democratica-mucronata*, but differs from it in several points of internal structure. At first I was inclined to place it as a variety of that species, but have now decided to treat it as distinct.

The musculature is peculiar, and differs from that of the last species; it is shown in fig. 13 on Plate VIII. The first and second bands are short, and the second extends much farther ventrally than dorsally. The remaining bands (Pl. VIII. fig. 13, 3-7) are very long, extending almost to the median ventral line, and not fusing with their neighbours dorsally. The curved muscle bands around the ends of the branchial and atrial apertures (Pl. VIII. fig. 13, *br. m.*, *at. m.*) are stout and of a yellowish colour, and are forked at their ends. Finally, the slender bands in front of the atrial aperture are composed each of a single muscle fibre, and are interrupted in the median dorsal line.

The minute structure of the muscles in this specimen is easily made out. The fibres are very distinct, and are cross striated (Pl. VIII. fig. 11). They have each a number of large distinct nuclei placed in single file. When more highly magnified (Pl. VIII. fig. 12), the cross striation is seen to be due to the presence of a series of quadrangular bodies placed in a single row along each of the fibrils of which the muscle fibres are composed. The nucleus of a fibre covers the breadth of four or five fibrils. By examining very young specimens of *Salpa democratica-mucronata* it is possible to trace the formation of a muscle band out of a few rows of ordinary fusiform mesoblast