

The post-abdomen is swollen in its upper part where the reproductive organs are placed, and is very narrow in its lower part (Pl. XXV. fig. 9, *p.ab.*). The edges are much corrugated. The ova are large and opaque. The vas deferens is wide and conspicuous in its whole course (Pl. XXV. fig. 9, *v.d.*). At the posterior extremity of the post-abdomen there are one or two short cæcal projections, resembling rudimentary vascular appendages (Pl. XXV. fig. 9, *v.ap.*).

Fully developed tailed larvæ were found in the peribranchial cavities of several of the Ascidiozooids. The body of the larva is narrow and elongated. There is a single pigmented sense-organ placed rather far back.

*Polyclinum incertum*, n. sp. (Pl. XXVI. fig. 10).

*The Colony* is a small irregularly rounded mass attached by one end and sometimes slightly pedunculated. The upper surface is broad and convex. The colour is a dark grey with a slight brownish tinge. The surface is uneven and not smooth.

The length is 1.3 cm., the breadth 1.2 cm., and the thickness 1 cm.

*The Ascidiozooids* are long and narrow. They may be 6 mm. antero-posteriorly and less than 1 mm. in greatest breadth. Fully half the length of the body is formed by the post-abdomen, but the separation into regions is not distinct superficially. The Ascidiozooids are of an opaque yellowish-brown colour, they are not arranged in systems.

*The Test* is soft and flexible, it is semi-transparent, and allows the bodies of the Ascidiozooids to show through distinctly. The matrix is clear, but is slightly fibrillated in some parts. The test cells are not very numerous. They are mostly rounded or fusiform in shape. There are no bladder cells.

*The Mantle* is moderately muscular, most of the muscle bands run longitudinally. The sphincter at the branchial aperture is well developed.

*The Branchial Sac* is small and its walls are opaque. The stigmata are very minute and inconspicuous.

*The Endostyle* is wide and has a very undulating course.

*The Tentacles* are rather long and narrow, and are of different lengths.

*The Alimentary Canal* is of moderate length, and the stomach is rather large.

*The Post-Abdomen* is large, and contains both male and female reproductive organs.

*Locality*.—Station 313, January 20, 1876; lat. 52° 20' S., long. 67° 39' W.; depth, 55 fathoms; bottom, sand; bottom temperature, 47°·8 F.

Three small colonies from Station 313 have been placed in this species. They are all different, but may, I think, be conveniently regarded as slight variations of one species. The colony from which the above description and measurements were taken is more