

The reproductive organs occupy the post-abdomen, the region of the body behind the intestinal loop, and also encroach upon the abdomen. The usual median membranous septum is present in the post-abdomen. The ova and the spermatocysts occur together, and tailed larvæ were found in the peribranchial cavity of one Ascidiozoid. The larvæ (see Pl. XXIV. fig. 15) have two pigmented sense-organs placed far back in the body, and the tail has a very broad membranous margin.

*Atopogaster elongata*, n. sp. (Pl. XXIV. figs. 1-8).

*The Colony* is of an irregularly elongated form, attached by the one end, and more or less pointed at the other. It is usually somewhat compressed laterally, but may be almost cylindrical. The surface is uneven and moderately smooth. The general colour is a pale grey, but it varies in different specimens from brownish to almost white.

The length is about 10 cm., the greatest breadth 2.5 cm., and the thickness about 1 cm.

*The Ascidiozooids* are small, and are arranged quite irregularly. They are very numerous, and their anterior ends are closely placed all over the outer surface. The usual length of the Ascidiozoid is about 4 mm., while the greatest width is 0.4 mm. The body is not distinctly divided into regions.

*The Test* is compact and firm, and almost quite opaque. The matrix is homogeneous or very slightly fibrillated. The test cells are very numerous, and are generally of an elongated fusiform shape. There are no vessels and no bladder cells present in the test.

*The Mantle* is moderately strong. The muscle bands run mainly in a longitudinal direction; they are closely placed on the post-abdomen.

*The Branchial Sac* is of small size and its walls are opaque. The transverse vessels are relatively large, while the stigmata are variable in size; sometimes they are small and inconspicuous, while in other cases they are of moderate size.

*The Tentacles* are fairly large; they are closely placed and of different lengths.

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

A large number of specimens of this species were obtained by the trawl at Station 313 in the Strait of Magellan. They differ from one another considerably in shape and size (see Pl. XXIV. figs. 1, 2, 3), but the colony is always of elongated form, attached by one end, and usually tapering slightly towards the other. In some cases the colony is twisted, the upper half or one-third being bent round so as to point towards the base of attachment (Pl. XXIV. fig. 3). The colony apparently never branches. In some cases there is considerable lateral compression, the thickness being much less than the breadth, but in other cases (or even other parts of the same specimen) the shape is