

sac are elongated vertically, and contain about three to five stigmata each. The transverse vessels are of three sizes placed alternately. The stigmata are long and narrow, and are placed with regularity.

*The Endostyle* is wide and conspicuous. Its course is undulating.

*The Dorsal Lamina* is a plain membrane with a very irregular margin, and with a series of indistinct transverse ribs.

*The Tentacles* are very numerous. They are of two sizes placed alternately. The larger are very long and are closely placed.

*Locality*.—March 3, 1874; Station 157; lat. 53° 55' 0" S., long. 108° 35' 0" E.; depth, 1950 fathoms; bottom, Diatom ooze; surf. temp. 37°·2; bottom temp. 32°·1.

This species resembles a silkworm's cocoon in its external appearance. The shape is fairly regular and symmetrical (Pl. XI. fig. 14), and the surface is covered by a close investment of silky hairs. The longest of these are found near the anterior and posterior ends of the body, where they project 5 or 6 mm. from the surface of the test. Some of them, however, are very short. These hair-like processes are usually simple, but some of them branch occasionally. They are seen when highly magnified to be finely roughened all over their surfaces. Sand grains, Diatoms and fragments of Foraminifera and Radiolarian tests are attached to them here and there.

The apertures are cross-slit, and have slightly raised margins where no hairs are present (Pl. XI. fig. 14). The mantle has a number of brownish pigment cells scattered through it.

The folds of the branchial sac are exactly like those of *Styela oblonga*<sup>1</sup> and some other species of the genus. The stigmata vary in length, as in some cases they are not interrupted by the third or smallest order of transverse vessels (Pl. XI. fig. 15). The internal longitudinal bars are wide and ribbon-like, and they are rather irregular in their course.

The condition of the tentacles is very characteristic. The two orders are very different in size (Pl. XI. fig. 16), the smaller ones being very short and dark-coloured; while the larger ones are of great size, and are membranous and light-coloured.

The alimentary canal is relatively small. It lies at the posterior end of the body, on the left side of the branchial sac. The stomach has its walls thrown into closely-placed longitudinal folds. The ovaries are two in number, one on each side of the body. They lie in the posterior half, and run obliquely forwards and ventrally. Their anterior ends nearly touch the sides of the endostyle.

This species belongs to the same section of the genus as *Styela oblonga*, but differs notably from that and all other species of *Styela* in the peculiar condition of the test and in the arrangement of the tentacles.

<sup>1</sup> See this Report, Part I., p. 160.