Zoology Part LXXVI: Report on the TUNICATA. Third Part.-Pelagic Tunicates. By Professor William A. Herdman, Bound in Volume 27,

Ascidiozooid the pigment masses scattered over the surface of the organs are very conspicuous.

In all these specimens from the Antarctic, the processes on the outside of the colony are few in number and are very irregularly distributed. In the most crowded spot there are only about three processes in a square centimetre, and on an average there is probably not so much as one process in a square centimetre, while in several of the colonies there are tracts of from 5 to 10 cm. in extent on which no processes are present. The processes are mostly about 4 or 5 mm. in length. They are conical in their basal part, with the branchial aperture at the apex of the cone, and having the terminal part of the process extending outwards on the dorsal edge of the branchial aperture. This terminal part of the process is flattened and expanded so as in some cases to approach the lanceolate form described by Savigny and Lesueur. It is also grooved along the side next to the branchial aperture (Pl. I. fig. 8).

A small colony obtained at Station 204, off the Philippine Islands, is also probably referable to this species, but it is young, and the colony has not the usual shape (see p. 34).

Two small colonies, collected on September 10, 1873, off the coast of Brazil (see p. 34), and the large decayed specimen from Station 160 (see p. 34), may also possibly belong to this species.

Pyrosoma spinosum, n. sp. (Pl. II. figs. 9–15).

External Appearance.—Shape, unknown. Size, over 4 feet in length. Colour, yellowish grey, semi-transparent.

Ascidiozooids large, conspicuous. No large projections from the outer surface of the colony.

Test gelatinous, transparent. Covered on the outer surface with small sharp-pointed spines. Inner surface smooth and glistening.

Mantle with a well-developed muscular system over the thoracic region of the body.

Branchial Sac large, vessels very numerous.

Dorsal Languets more than eight.

Localities.—(1.) June 25, 1873; Station 69; lat. 38° 23′ 0″ N., long. 37° 21′ 0″ W.; depth, 2200 fathoms; surf. temp. 71°, bottom temp. 36°·2.

(2.) October 11, 1873; Station 133; lat. 35° 41′ 0″ S., long. 20° 55′ 0″ W.; depth, 1900 fathoms; surf. temp. 58°, bottom temp. 35°·4.

This is the largest kind of *Pyrosoma* known, and although I have only had some fragments of colonies to examine, I have no hesitation in forming a new species for it.

At Station 133 in the South Atlantic, 400 miles west of Inaccessible Island, a

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