

The closed end of the colony is formed by one central Ascidiozoid with six others arranged around it. After that the Ascidiozooids are arranged quite irregularly, but are all placed with their ventral surfaces towards the closed end of the colony, so that the common cloacal aperture is situated dorsally to the Ascidiozooids.

A small colony obtained off the coast of Africa on August 16, 1873, is probably also referable to this species; but it is young, and the characters are not well marked (see p. 33).

*Pyrosoma giganteum*, Lesueur (Pl. I. figs. 4-21).

*Pyrosoma giganteum*, Lesueur, Journ. de Physique, 1815, p. 413.

This is the species of *Pyrosoma* which has been the most thoroughly investigated. It was described and well figured by Lesueur in 1815. It was independently investigated at the same time by Savigny, who gave an account of its anatomy in 1816. It underwent further investigation at the hands of Keferstein and Ehlers in 1861; and, finally, it was the subject of Huxley's careful and detailed researches made in the following year. Each of these distinguished naturalists added somewhat to the knowledge gained by his predecessors.

One specimen of this species was obtained by the Challenger Expedition in the surface-net off Cape Verde in August 1873. It is of cylindrical form, and has the terminal opening very small.

The measurements are as follows:—

Total length, . . . . .	10.5 cm.		Diameter of cloacal cavity, close to opening,	1.4 cm.	
Breadth near open end, . . . . .	1.5 cm.			„ „ „ near middle, . . .	1.0 cm.
„ at thickest part (near middle),	2.5 cm.			„ of common cloacal aperture, . . .	0.4 cm.
„ at closed end, . . . . .	1.5 cm.			Thickness of colony, . . . . .	about 0.3 to 0.4 cm.

The Ascidiozooids are placed just as in the case of *Pyrosoma atlanticum*, with their ventral surfaces towards the closed end of the colony, and the long processes of the test on the outer surface are placed on the dorsal edges of the branchial apertures, and are therefore turned towards the open end of the colony (Fig. 5).

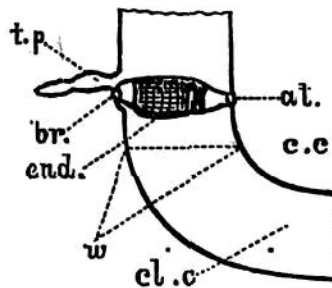


FIG. 5.—Diagram showing the relation of the Ascidiozoid, and of the process of the test to the closed end of the colony in *Pyrosoma giganteum*.

at., atrial aperture; br. branchial aperture; c.c. common cloaca of the colony; cl.c. closed end of the colony; end. endostyle indicating the ventral edge of the Ascidiozoid; t.p. process of the test; w. thickness of the colony.