

In *Pyrosoma* there are from twenty to fifty transverse vessels, and about the same number of slits, which are usually about equal in breadth to the thickness of a vessel. The internal longitudinal bars are from fifteen to thirty in number on each side. They are ciliated on their edges. The meshes formed by the intersection of the transverse vessels and the internal longitudinal bars are generally elongated transversely, and are about three times as long as they are broad (see Pl. I. figs. 17, 19).

At the anterior end of the branchial sac is found the peripharyngeal groove, bounded by the two peripharyngeal bands (Pl. I. figs. 18, 19, *pp.*).

The endostyle runs along the ventral edge of the branchial sac in the usual manner. It is very regular in its course (Fig. 4, *en.*).

The dorsal lamina on the opposite edge of the branchial sac is in the condition of a series of finger-like languets, having blunt points and ciliated on their anterior edges. It is a curious fact that the dorsal languets are fewer in number than the transverse vessels of the branchial sac, and appear to bear no definite relation to them.

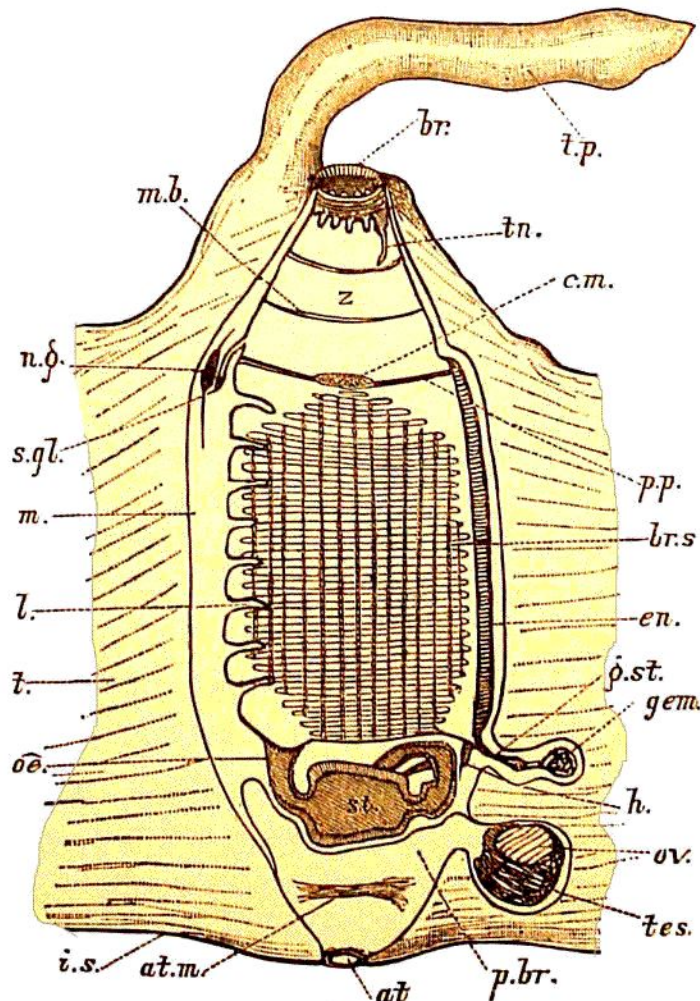


FIG. 4.—A single Ascidiozoid of *Pyrosoma*, lying in the test, seen from the right side.

*at.* atrial aperture, *at.m.* atrial muscle, *br.* branchial aperture, *br.s.* branchial sac, *c.m.* mass of phosphorescent cells, *en.* endostyle, *gem.* young bud on *g.st.* gemmiparous stolon, *h.* heart, *i.s.* inner surface of colony, *l.* languet, *m.* mantle, *m.b.* muscle band, *n.g.* nerve ganglion, *o.* oesophagus, *ov.* ovum, *p.br.* peribranchial cavity, *p.p.* peripharyngeal groove, *st.* stomach, *s.gl.* subneural gland, *t.* test, *tes.* testis, *t.p.* process of test, *tn.* large ventral tentacle, *z.* zona prebranchialis.