

PLATE I.

Figs. 1-3. *Pyrosoma atlanticum*.

Figs. 4-21. *Pyrosoma giganteum*.

*at.* Atrial aperture.  
*c.m.* Masses of phosphorescent cells.  
*en.* Endostyle.  
*i.* Intestine.  
*i.l.* Internal longitudinal bars.

*m.b.* Muscle bands.  
*n.g.* Nerve ganglion.  
*œ.* Oesophagus.  
*p.p.* Peripharyngeal bands.  
*sph.* Sphincter muscle.

*tn.* Tentacles.  
*tn'* Large ventral tentacle.  
*t.c.* Test cells.  
*tr.* Transverse vessel of branchial sac.

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- Fig. 1. Section of open end of colony of *Pyrosoma atlanticum* from off Cape Verde, showing condition of diaphragm; natural size.
- Fig. 2. Circle of tentacles from Ascidiozoid of same colony (S.  $\frac{1}{4}$ ).
- Fig. 3. Part of longitudinal section of same colony, showing atrial apertures opening into common cloacal cavity (S. 1).
- Fig. 4. Section of open end of colony of *Pyrosoma giganteum* from off Cape Verde, showing condition of diaphragm; natural size.
- Fig. 5. Part of section through the surface layer of test of same (S.  $\frac{1}{4}$ ).
- Fig. 6. Part of section through deeper part of test of same (S.  $\frac{1}{4}$ ).
- Fig. 7. Part of branchial aperture of Ascidiozoid of same (S.  $\frac{1}{4}$ ).
- Fig. 8. Branchial apertures and processes of test of same; natural size.
- Fig. 9. Free edge of diaphragm of same, showing numerous muscle bands (S. 1).
- Fig. 10. Part of last more highly magnified (S.  $\frac{1}{4}$ ).
- Fig. 11. Muscle fibres from mantle of same (S.  $\frac{1}{4}$ ).
- Fig. 12. Part of branchial sac of same (S. 1).
- Fig. 13. Part of branchial sac, showing irregularity (S. 1).
- Fig. 14. Part of internal longitudinal bar of same (S.  $\frac{1}{4}$ ).
- Fig. 15. Part of transverse vessel of same (S.  $\frac{1}{4}$ ).
- Fig. 16. Edges of one of stigmata of same (S.  $\frac{1}{4}$ ).
- Fig. 17. Part of branchial sac of same (S.  $\frac{1}{4}$ ).
- Fig. 18. Anterior end of Ascidiozoid of same, from branchial sac (S.  $\frac{1}{4}$ ).
- Fig. 19. Part of anterior end of branchial sac of same, from side (S. 1).
- Fig. 20. Some of the phosphorescent cells of same (S.  $\frac{1}{4}$ ).
- Fig. 21. Alimentary canal of a young Ascidiozoid of same (S. 1).