

PLATE XLI.

Figs. 1-4. *Leptoclinum carpenteri*, n. sp.

Figs. 1, 5-7. *Leptoclinum thomsoni*, n. sp.

<p><i>br.</i> Branchial aperture. <i>en.</i> Endostyle. <i>l.v.</i> Fine longitudinal vessels of branchial sac. <i>m.b.</i> Muscle band in mantle.</p>	<p><i>α.</i> Oesophagus. <i>r.</i> Rectum. <i>sg.</i> Stigmata of branchial sac. <i>sp.</i> Calcareous spicule in test. <i>st.</i> Stomach.</p>	<p><i>t.c.</i> Test cells. <i>t.m.</i> Test matrix. <i>tr.</i> Transverse vessel of branchial sac. <i>t.v.</i> Spermatic vesicles. <i>v.</i> Vessel in the test.</p>
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Fig. 1. Colonies of—A. *Leptoclinum thomsoni*, and B. *Leptoclinum carpenteri*; natural size.

Fig. 2. Part of a vertical section through the colony of *Leptoclinum carpenteri*, showing arrangement of spicules and structure of Ascidiozooids; magnified (S., 1 inch).

Fig. 3. Section through test of *Leptoclinum carpenteri*; highly magnified (S., $\frac{1}{4}$ inch).

Fig. 4. Part of branchial sac of *Leptoclinum carpenteri*; highly magnified (S., $\frac{1}{4}$ inch).

Fig. 5. Part of a vertical section through the colony of *Leptoclinum thomsoni*, showing arrangement of spicules and structure of Ascidiozooids; magnified (S., 1 inch).

Fig. 6. Spicules from test of *Leptoclinum thomsoni*; highly magnified (S., $\frac{1}{4}$ inch).

Fig. 7. Part of a vertical section through upper part of colony of *Leptoclinum thomsoni*, showing the thoracic region of an Ascidiozooid and the neighbouring test; highly magnified (S., $\frac{1}{4}$ inch).