

his great work on the Compound Ascidiæ, to show that they reproduced by gemmation, although long before Lister<sup>1</sup> had pointed out the same fact in another genus of the family, *Perophora*.

Milne-Edwards gave a very full account of the anatomy and physiology of *Clavelina*, and described several species at considerable length. He proposed that *Clavelina* and *Perophora* should be separated from the Simple Ascidiæ, with which up till that time (1842) they had been associated, and he formed for their reception a group, the Ascidiæ Sociales, intermediate between Simple and Compound Ascidiæ, and independent of both.

Giard, in his "Recherches sur les Synascidies," published in 1872, adds little or nothing to Milne-Edwards's account of the genus *Clavelina*, which he places along with *Perophora* and the Compound Ascidiæ, in his Synascidiæ.

*Clavelina* is the typical genus of the Clavelinidæ, and shows most of the characteristic features of the family in a marked degree. It differs from *Perophora* chiefly in the relation of the intestine to the branchial sac, and in having a more or less well developed abdomen. From *Ecteinascidia* it is separated by the total absence of internal longitudinal bars in the branchial sac.

The two new species of *Clavelina* discovered during the Challenger expedition differ somewhat from the previously known species of the genus in the external appearance of the colony, as in both cases the individuals are crowded together, and the stolons are present merely in the form of a thick mass of test substance continuous with and uniting the posterior ends of the individuals.

*Clavelina oblonga*, Herdman (Pl. XXXV. figs. 6-10).

*Clavelina oblonga*, Herdman, Prelim. Rep., Proc. Roy. Soc. Edin., 1879-80, p. 724.

*External Appearance*.—The individuals are closely united into a colony by their posterior ends, which form a thick irregular stolon. The shape of each ascidiozoid is irregularly oblong, sometimes club-shaped or more irregular. The anterior end is wide and rounded; the posterior is generally very narrow. The apertures are sessile, not lobed, and are placed both at the anterior end.

The surface is smooth, with occasional transverse wrinkles, especially towards the posterior end. The colour is light yellowish-grey, nearly white.

Length of the body of a single individual, 2 cm.; breadth of same, 0.6 cm.; height of the colony, 6 cm.

*The Test* is thin, especially at the anterior end; it is transparent.

*The Mantle* is moderately strong. The margins of the apertures are much pigmented, but not so as to form definite ocelli.

<sup>1</sup> Philosophical Transactions for 1834. Part II.