

The colonies are of irregular shape (see Pl. XLI. fig. 1, where A. represents the present species), and are not so rounded as those of *Leptoclinum carpenteri* (Pl. XLI. fig. 1, B.). They are also flatter and more spreading, of a slightly whiter colour, and much harder and firmer, and not so smooth to the touch, consequently there is no difficulty in distinguishing the two species even by their external characters only. The Ascidiozooids also are clearly visible in the present species, which is not the case in *Leptoclinum carpenteri* (see Pl. XLI. fig. 1, A. and B.). The branchial apertures lie in minute depressions which are closely placed all over the surface of the colony.

The colonies are of various sizes, from a few millimetres to 2 centimetres in length. They are all attached to parts of the Alga, around which they have grown so as to completely imbed it. The surface of the colony feels hard and slightly rough, but no projections are visible. Vertical sections show (see Pl. XLI. fig. 5) that as in the case of *Leptoclinum carpenteri* the superficial layer is formed of test containing no calcareous spicules.

The Ascidiozooids as a general rule are placed at right angles to the surface of the colony, but in some cases they are inclined at an angle to it. The abdomen is sometimes not directly posterior to the thorax, but is bent upwards so as to lie partially on its dorsal edge (Pl. XLI. fig. 5, right hand side).

The test is, relatively to the size of the colony, not so large in amount as in the case of *Leptoclinum carpenteri*. It has the characteristic Leptoclinid stiffness and opacity. The test cells are inconspicuous, but the spicules are very abundant (see Pl. XLI. figs. 5, 7). In some places they are even more numerous than is represented in figure 5. A few bladder cells are present in the outer part of the test in some places. The spicules are very regular. The rays are usually wide at the base, and curve gently upwards to the pointed apex (see Pl. XLI. fig. 6). Rarely an irregular spicule is seen like one of those shown in figure 6, where one ray is larger than the others. In some cases the rays are narrower than usual, and the apices are much sharper.

A vertical section through the colony (Pl. XLI. fig. 5) shows that below the superficial layer composed of test only (*t.m.*), occurs a wide zone (*sp.*) in which the spicules are closely placed. This region surrounds the greater part of the thorax of the Ascidiozooids. It varies somewhat in width, but is always considerably wider than the corresponding zone in *Leptoclinum carpenteri*. In the deeper parts of the colony spicules are present in the test, but they are not very numerous and are scattered evenly.

The muscles of the mantle are well developed and run in various directions (Pl. XLI. fig. 5). The branchial siphon is large, and the test lining it contains spicules (Pl. XLI. fig. 5, *br.*). The sphincter is well developed, and from its posterior edge two bands of muscle fibres arise on each side, one near the dorsal and the other near the ventral edge of the siphon. These muscle bands run posteriorly over the surface of the thorax, and soon join (see Pl. XLI. fig. 7) to form a single band which continues to run backwards