

nearly cylindrical. The largest colony in the collection measures about 12 cm. in length, and the smallest 1.5 cm. in length and 8 mm. in greatest breadth.

The lower ends of the colonies have evidently been imbedded in gravel and sand, as they have masses of small stones and dark coloured sand-grains attached to the test for a distance of from 1 to 3 cm. above the base. In some few cases parts of the colony further up on one of the sides also show sand-grains imbedded in the test (Pl. XXIV. fig. 3), as if these colonies had grown in a recumbent in place of an erect position. The colour is generally of a dull pale yellowish-grey. It always becomes darker towards the base of attachment, and in a few specimens it is decidedly more of a yellowish-brown tint.

The Ascidiozooids are very numerous, but small. The thorax only occupies about one-fifth of the body, and the abdomen scarcely so much, while the rest is formed by the post-abdomen (see Pl. XXIV. fig. 4). The widest part is the thorax. There are no systems, and the Ascidiozooids seem to be crowded together without any regularity.

The test is firm and opaque except in thin slices. Its outer layer is rather tougher than the central mass, and the surface is slightly uneven, the anterior ends of the closely placed Ascidiozooids forming a number of small elevations. In its minute structure the test is remarkable on account of the immense abundance of the small cells, and of their fusiform shape (see Pl. XXIV. fig. 5, *t.c.*). In some places they are greatly elongated so as almost to form fibres, and they generally lie with their long axes parallel, so as to give the test in sections a somewhat striated or fibrillated appearance.

The mantle is, relatively to the size of the Ascidiozooid, moderately strong. The longitudinal muscle bands, which are rather distant on the thorax, become much more closely placed on the post-abdomen, where they form a strong muscular investment. The sphincter at the branchial aperture is well developed.

The branchial sac is relatively small and rather feebly developed. The stigmata are usually neither large nor very numerous. In some sacs, however (Pl. XXIV. fig. 6, *sg.*), they are of fair size and are wider than the fine longitudinal vessels. The ciliated cells are pointed. The endostyle is very wide and has an undulating course. The tentacles are irregular in length.

The alimentary canal does not extend very far behind the branchial sac. The œsophagus is short and narrow, and runs directly backwards (Pl. XXIV. fig. 7, *œ*). The stomach is large and more or less globular in form. It is rather wider anteriorly than posteriorly, and the wall is thrown into irregular transverse folds. The intestine is narrow. After leaving the posterior end of the stomach it runs backward for a short distance and then turns dorsally and anteriorly to form the rectum, which, after passing the stomach and œsophagus, ends in the peribranchial cavity.

The post-abdomen is large (see Pl. XXIV. fig. 4, *p.ab.*), usually about twice as long as the thorax and abdomen together, and it is wider than is usual amongst allied