the posterior end is rather drawn out, and is attached to the interior of a large bivalve shell, which is in a three-quarters closed condition, constricting the test of the Ascidian. The branchial aperture is not terminal, but is placed on the right side near the ventral edge, and about one-fifth of the distance from the anterior end to the point where the body suddenly narrows at the mouth of the shell; it is directed ventrally, posteriorly, and to the right. The atrial aperture is on the right side, near the dorsal margin, and slightly anterior to the branchial aperture; it is directed dorsally and anteriorly.

The surface is smooth but mammillated very strongly on the anterior half and the right side, especially near the branchial aperture, where a few more sharply cut papillæ are visible.

The colour is a light smoky brown, rather deeper in tint at the anterior end.

Length of the body, 8 cm.; breadth of the body, 4 cm.

The Test is cartilaginous, thick, and of a light greyish-brown colour throughout. Vascular trunks enter the test on the left side about half-way down, and large vessels are seen ramifying on the inner surface; dark-coloured terminal twigs with swollen ends are very numerous in the outer layer. Elliptical cells, partly filled with pigment, are numerous throughout the whole test. Bladder cells are few and of small size; in the peripheral layers around the ends of the vessels, however, they are crowded, but very small.

The Mantle is moderately thick and muscular.

The Branchial Sac is longitudinally plicated. The transverse vessels, which are all nearly of one size, divide the grooves formed by the plication into rows of pouches, which are rather irregularly placed, and have no relation to the internal longitudinal bars. The meshes are transversely oblong, and contain each about eight to ten stigmata. The papillæ are large and expanded.

The Dorsal Lamina is ribbed transversely, and is strongly pectinated at the margin, a rib running out to the apex of each tooth.

The Tentacles are numerous and filiform ; there are sixty-two large ones, and about the same number of very minute intermediate ones. These last are so small as to be easily overlooked ; usually one is placed between each pair of large tentacles, but in some spaces there appears to be none.

The Dorsal Tubercle is large, and irregularly oval in outline; the right horn is turned outwards and the left horn inwards.

This is a well characterised and rather peculiar species. The elongated posterior portion of the test is probably accidental and due to the position of the animal in the interior of a shell (Pl. XXIX. fig. 1). Seen from the ventral aspect (Pl. XXIX. fig. 2), it seems as if the anterior end had been bent over towards the right side, thus accounting for the lateral position of the branchial aperture. The atrial aperture is only four-lobed, but this may be an individual peculiarity.