The colour is a light grey, with a yellowish tinge over the head. There is a certain amount of opaque white pigment in the test.

The length of the head is 2·5 cm., the greatest breadth 1·8 cm., and the average thickness 0·8 cm. The length of the peduncle is 1·5 cm. and its thickness 0·6 cm.

The Ascidiozooids are comparatively small. They are elongated antero-posteriorly, and measure about 1·5 mm. in length and 0·5 mm. in greatest breadth. The branchial and visceral parts of the body are distinct, and a narrow vascular appendage is prolonged from the posterior end of the body through the common test.

The Test is firm and moderately tough. In the peduncle it is especially tough. With the exception of the superficial layer of the head it is rather opaque, and this layer becomes opaque only where the white pigment is deposited.

Bladder cells are present in large numbers, especially in the superficial layers. Consequently the structureless matrix is greatly reduced. It contains the usual small cells of various shapes; most of these are rounded or fusiform, and in some parts, especially of the peduncle, they are extremely abundant. In the central part of the head and peduncle the test is very spongy in its coarser structure, and is penetrated by the numerous vascular appendages.

The Mantle is thin and membranous. The musculature is very weak, consisting merely of very delicate bundles of muscle fibres, most of which run transversely. The branchial sphincter is moderately strong.

The Branchial Sac is large. The transverse vessels are of a fair size and all alike. The stigmata are long and narrow, with rounded ends. They are arranged with regularity. The stigmatic cells are short, and pointed at their free ends. They are richly ciliated.

The Dorsal Lamina is formed of a series of short pointed languets.

Locality.—Station 163D, June 12, 1874; lat. 33° 57′ 30″ S., long. 151° 39′ 15″ E.; depth, 120 fathoms; bottom, green sand.

Two specimens of this interesting species were obtained off the south-east coast of Australia from a depth of 120 fathoms. They differ slightly from one another in appearance, but must certainly be placed under the same species.

The head, which is large compared with the peduncle (Pl. XVII. fig. 1), is flattened laterally, and becomes thinner as it recedes from the peduncle, so that in lateral view it is somewhat wedge-shaped. In a front view (Pl. XVII. fig. 1), on the other hand, it narrows as it approaches the peduncle, and the broadest point is close to the uneven upper end. At the base the head passes quite gradually into the top of the peduncle, and there is no line of demarcation between the two. The upper end of the head looks at first sight as if it was partially decayed and torn, but a careful examination does not afford any evidence of this being the case. Although there are no Ascidiozooids in the terminal 2 to 3 mm. (Pl. XVII. fig. 2), still the test seems whole and healthy