Morchellium giardi, n. sp. (Pl. XXV. figs. 1-3).

The Colony is of rudely hemispherical form and is attached by a small area in the centre of the lower surface. The upper surface is broad and convex, the lower is smaller and usually flattened or slightly concave. There is no lateral compression. The surface is even but not smooth. The colour is a dull pale brown.

The length is 1.8 cm., the breadth 2.5 cm., and the thickness 2 cm.

The Ascidiozooids are of moderate size and fairly numerous. They are placed vertically in the colony and are arranged in systems around the common cloacal apertures, of which there are a good number on the upper surface of the colony. The body of the Ascidiozooid is usually about 5 mm. or 6 mm. in length and 1 mm. in breadth; it is not distinctly divided into regions.

The Test is firm and cartilaginous. It is of a greyish-brown colour and is rather opaque. The test cells are small but very numerous. Most of them are fusiform or branched, and their protoplasm is granular. No bladder cells are present.

The Mantle is thin and transparent and not very muscular. The longitudinal muscle bands are fairly strong, but are placed far apart.

The Branchial Sac is large and well developed. The transverse vessels are numerous and all of the same size. The stigmata are long and narrow and arranged with great regularity.

The Dorsal Lamina is represented by a series of large languets.

The Tentacles are numerous and closely placed.

The Alimentary Canal forms a long narrow loop. The stomach has its wall irregularly thickened.

The Post-Abdomen is large and quite opaque.

Locality.—Royal Sound, Kerguelen Island, January 19, 1874; depth, 20 to 60 fathoms.

Four specimens of this species were obtained in Royal Sound, Kerguelen Island. They are all of rounded form, flattened from above downwards so as to present a somewhat hemispherical appearance in side view (Pl. XXV. fig. 1). The place of attachment is sessile, and usually occupies the middle third or so of the flattened lower surface. The colour is characteristic. It is a dull brown with a slight olive-green shade. A few sand-grains are found adhering to the surface in different parts of the colony, even on the upper surface.

The largest specimen is nearly 3 cm. in its greatest extent (breadth), and the smallest is 1.3 cm. in length, 1.9 cm. in breadth, and 1.5 cm. in thickness. There are a considerable number of systems in each colony. Fifteen common cloacal apertures are visible on the upper surface of one colony and twelve on another. They are small, circular or