Leptoclinum tenue, var. magnizooidium, nov. (Pl. XL. figs. 1, 2).

The Colony is a flat expansion of irregular shape. It is attached by its entire extent. The upper surface is even and smooth. The colour is a dull white.

The length is about 3 cm. and the breadth about 2 cm.; the thickness is from 1 to 2 mm.

The Ascidiozooids are very large and fairly numerous. They are placed regularly over the surface, but are not arranged in definite systems. No common cloacal apertures are visible. The Ascidiozooids have short bodies, and are placed obliquely in the colony.

The Test is soft and tears easily. It is of an opaque white colour throughout. The matrix contains a comparatively small number of minute test cells and a very large number of calcareous spicules. No bladder cells are present. The spicules are large, and are of very regular stellate form.

Locality.—Unknown.

The specimen for which I institute this variety was obtained during one of the cruises of H.M.S. "Porcupine," but the exact locality is unknown. It is attached to an old worn fragment of Coral (Pl. XL. fig. 1).

The colony is of irregular form, and has a thin expanded margin. Like the specimens of Leptoclinum tenue, it has large distinct Ascidiozooids which make conspicuous marks on the upper surface, but it differs from them in having the edges less definite and rounded, in not being so white in colour, and in having both the Ascidiozooids and the spicules distinctly larger. The upper surface of the colony also is rather smoother in the present variety (Pl. XL. fig. 1).

The arrangement of the spicules in the upper layer of the test is essentially the same, but they are more numerous in the variety than in the typical members of the species, The areas between the Ascidiozooids are quite opaque, and over the bodies of the Ascidiozooids the spicules are fairly numerous. The edges of the six lobes round the branchial aperture are strengthened by masses of closely placed spicules.

The spicules in the variety are all of the same size, and are remarkably regular in form. They are stellate (Pl. XL. fig. 2). The rays are not very long, and are moderately sharp. No irregular or deformed spicules were noticed.

Leptoclinum propinquum, n. sp. (Pl. XXXIX. figs. 16-20).

The Colony is of irregularly rounded form, and is closely attached by its entire extent. The upper surface is smooth. The colour is a greyish-white.

The length is about 2 cm. and the breadth 1 cm., the thickness is 1 mm.