The Test is firm and cartilaginous. It is of a grey colour, and is semi-transparent. The matrix is clear and structureless. It contains minute inconspicuous test cells, and a considerable number of large bladder cells, but no calcareous spicules are present.

Locality.-Off Bermuda, shallow water.

This is a colony of compact rounded form which was dredged off Bermuda in shallow water (Pl. XXXIV. fig. 6). It is unlike any other species in the collection, and is, I think, distinct from any known species of Compound Ascidian; but unfortunately, on account of the condition of the Ascidiozooids in the single colony at my disposal, it is impossible to give a complete specific description, or even to refer the specimen to its proper genus with certainty. All the Ascidiozooids are apparently in a decomposed condition; they are found on examination to be merely rounded or elongated masses of granular débris. Probably the colony was dead and in a decaying condition when collected.

It is simply from the general appearance, and not from any structural feature, that I place this specimen in the Didemnidæ, but it is quite possible that it may really belong to the Polyclinidæ. If, however, it is correctly placed in the present family, then, on account of its massive form (Pl. XXXIV. fig. 6), there can be little doubt that its genus is *Didemnum* or *Didemnoides*. As the former is the commoner and more widely distributed genus, I have provisionally placed the species there.

The test, as is usual in Compound Ascidians, even when the Ascidiozooids are dead, is in good condition, but no spicules are present. This, although unusual in the Didemnidæ, is not an unknown condition, as von Drasche's two species, *Didemnum inarmatum* and *Didemnum tortuosum*,¹ have no spicules in the test.

The bladder cells are large and fairly numerous (Pl. XXXIV. fig. 7, *bl*.). They are of the usual ellipsoidal form, with distinct laterally placed nuclei. The test cells are of various shapes, but are all of small size (Pl. XXXIV. fig. 7, *t.c.*).

Leptoclinum, Milne-Edwards.

Leptoclinum, Milne-Edwards, Observations sur les Ascidies Composées, 1841.

Leptoclinum, Giard, Recherches sur les Synascidies, &c., Archives d. Zool. expér., t. i. p. 651, 1872.

Leptoclinum, Della Valle, Contribuzioni, &c., 1877.

Leptoclinum, von Drasche, Die Synascidien, &c., p. 33, 1883 (as a subgenus).

Colony forming a thin incrusting layer, rarely thick and massive.

Ascidiozooids with the atrial aperture on or near the anterior end of the body, and provided with a long languet.

Test very hard and firm, densely crowded with calcareous spicules.

Branchial Sac usually with four rows of stigmata.

¹ Die Synascidien der Bucht von Rovigno, p. 32, 1883.