

The individual cells are large and rounded, and have very granular protoplasm (Pl. XXXII. fig. 13, *tc'*.) Probably they correspond to the clumps of pigmented test cells found in *Atopogaster aurantiaca* (see p. 170, and Pl. XXIII. fig. 9, *p.c.*) and *Amaroucium lævigatum* (see p. 232, and Pl. XXX. fig. 15) and some other species.

The musculature of the mantle is very strong, and the individual muscle fibres are large. The mantle is very opaque.

The branchial sac is very narrow and the stigmata are feebly developed. The wall of the sac is opaque.

An additional species of the genus, *Psammaphidium pyriforme*, will be found described in Appendix B. at the end of the Report.

Genus doubtful.

The following species, on account of its condition, cannot be assigned to its genus with any certainty.

————— (?) *ignotus*, n. sp. (Pl. XXVIII. figs. 14, 15).

The Colony is a very long, narrow, and somewhat irregular mass probably attached by one end, the rest of the colony lying on the sea-bottom. The lower end is prolonged into a number of filamentous projections to which sand grains and stones are attached. The widest part of the colony is about half-way up, and from that point it tapers to the upper end. The edges are very irregular. The surface is uneven and rough, and the colour is a light grey, irregularly spotted with light yellow and with dark patches of sand.

The length is 48 cm., the greatest breadth is 3 cm., and the thickness varies from 1 to 2 cm.

The Ascidiozooids are of fair size, but are not very numerous. They are apparently arranged quite irregularly over the surface of the colony.

The Test is, considering its bulk, very soft and spongy. Its outer surface is quite irregular, and it is of the same consistence throughout. It is of a light grey colour, and rather opaque. The matrix is generally homogeneous, but in some places it is delicately fibrillated. It is crowded with test cells, most of which are of rounded forms and rather granular.

Locality.—Station 313, January 20, 1876; lat. 52° 20' S., long. 67° 39' W.; depth, 55 fathoms; bottom, sand; bottom temperature, 47°·8 F.

This is an interesting species on account of its very great size, but most unfortunately all the colonies I have seen are in such very bad condition that almost nothing can be made out in regard to the structure of the Ascidiozooids. There are two specimens in the Challenger collection, both from the Strait of Magellan, and in the British Museum