together by a scarce maltha. The porous surface bears conical elevations, and on the top of each cone opens a large osculum.

Holopsamma argillaceum is represented in the Challenger collection by a single small specimen, in the form of an irregular, roundish, tuberose lump, the diameter of which is between 12 and 22 mm. The dry sponge is like a piece of red clay, quite hard and solid, of a reddish grey or light red colour, but it is porous, and transverse sections show the branched canals, proving its sponge-nature (fig. 6B). The smallest inhalent canals open everywhere on the surface by the usual dermal pores; the larger confluent canals open into a few main branches, and each of these opens on the top of a conical protuberance by a large osculum (fig. 6B, *o*). Attempting to isolate the canals from the massive pseudo-skeleton, I was able to discover a few roundish sacs in the course of the smaller canals, apparently the remnants of flagellated chambers. A closer examination of the canal-system, however, was not possible. The fine argillaceous matter, which forms the main-mass of the sponge, is composed of the numerous mineral particles characteristic of the red clay, such as would be produced by the decomposition of felspathic minerals, pumice, and other volcanic products; intermingled are siliceous spicules of different sponges, and their fragments; all these xenophya are cemented together by a small quantity of clear maltha. No Spongo-xeniæ were found in this species.

Genus 6. *Psammopemma*,[1] Marshall (1880).

Definition.—Psamminidæ with an irregular massive or lumpy body, the surface of which is pierced everywhere by small dermal pores, but showing no larger openings or oscula.

The genus *Psammopemma* was founded by Marshall in 1880 upon some Australian sponges preserved in the Museum of Jena. He characterised it by the complete absence of spongin-fibres, the crusty, lumpy, or cake-shaped body being supported by sand or other foreign bodies, connected only by a small quantity of protoplasm. The sandy body is traversed by very narrow branched canals, which exhibit no distinct oscula or larger exhalent openings. This latter character mainly distinguishes *Psammopemma* from *Psammina* and from *Holopsamma;* both these genera possess distinct oscula, as the opening of wide exhalent main canals. The two species of *Psammopemma*, which Poléjaeff describes in his Report on the Keratosa,[2] and which were collected by the Challenger in shallow water, seem to belong to *Cerelasma* (*cf.* below). The author says that "the secretion of the horny substance has been reduced to the formation of

[1] *Psammopemma* = Sandy cake, ψάμμα, πίμμα.

[2] *Loc. cit.*, p. 45.