

only a thin envelope around the enclosed foreign bodies." I was not able to discover any trace of true spongin in the different species of *Psammopemma* now described.

This genus seems to be widely distributed in the deep sea, but has been overlooked hitherto, owing to its insignificant shape and usually small size. I have found small fragments belonging to *Psammopemma* in several soundings; they are like irregular lumps or crusts, composed of the sediment covering the sea-bottom. But a closer examination informs us that the apparent sandy concrement is traversed by a branched canal-system, in the course of which are interpolated numerous flagellated chambers.

*Psammopemma radiolarium*, n. sp. (Pl. VII. figs. 4A, 4B).

*Habitat*.—Tropical Pacific, Station 272; September 8, 1875; lat. 3° 48' S., long. 152° 56' W.; depth, 2600 fathoms; bottom, Radiolarian ooze.

Sponge lumpy, forming irregular, roundish, clavate or turbinate masses, which are composed almost entirely of siliceous Radiolarian tests, cemented together by a scarce maltha. No symbiotic Spongoxenia.

*Psammopemma radiolarium*, in the characteristic turbinate form, which is represented in Pl. VII. fig. 4A from the side, fig. 4B from below, was found at Station 272; similar specimens occur also in the soundings of Stations 270, 271, and 274, usually in the form of irregular, roundish or cake-shaped, massive lumps, which at first sight were regarded as mere inorganic concretions of Radiolarian ooze. A closer examination, however, principally by means of different sections stained by carmine, informed me that the whole sandy mass of these apparently homogeneous lumps is traversed by an irregularly branched canal-system, opening on the surface by innumerable fine pores. No flagello-chambers nor oscula were visible, but comparison with the similar lumps of the following species makes it very probable that it belongs to this genus. The porous lumps had partly the form of a flat cake or a subglobose mass, partly of a pedunculate club or an inverted cone, sometimes like a peg-top. The diameter of the dry lumps is from 5 to 20 mm. The consistence is that of a soft sandstone or of a friable marl, the colour light grey or whitish. The xenophya of this species are exclusively Radiolarian tests, cemented together by a very scanty maltha; sometimes a few fragments of siliceous sponge spicules are intermingled.

*Psammopemma calcareum*, n. sp. (Pl. VII. fig. 5).

*Habitat*.—Tropical Atlantic, between the Canary and Cape Verde Islands, Station 89; July 23, 1873; lat. 22° 18' N., long. 22° 2' W.; depth, 2400 fathoms; bottom, Globigerina ooze.