foreign bodies—all precisely as in the original specimen of the form from Lesina; and as its internal organisation also does not deviate from that of *Cacospongia collectrix* as described by F. E. Schulze, there is no room to doubt the specific identity of both these specimens. But the matter is quite different with regard to the Challenger specimen from Japan. Its internal structure also does not differ from that of a typical *Euspongia* or *Cacospongia*, but—and this is the salient point—I was unable to make out whether this specimen really does possess any differentiated horny skeleton. This was owing to its minuteness, its dimensions being on an average as follows:—length 22 mm., height 7 mm., breadth 10 mm. The half of the specimen has been sacrificed to the decision of the above question; the result of a lasting treatment with hot water and ammonia was a heap of sand-grains and a single 2 mm. high horny tree also very rich in foreign enclosures. Is it to be regarded as produced by the sponge itself? Is it also nothing but a foreign enclosure, like what Marshall states [1] of the specimens of *Psammopemma densum* he had for examination? All this remains an open question. That our specimen is a horny sponge is quite plain, the foreign bodies enclosed in its parenchyma being undoubtedly surrounded with obvious horny substance; that, being a Keratose sponge, it is also a Spongid is demonstrated by its internal structure, but whether it is to be classed in the species *Cacospongia collectrix*, and not to be regarded as an analogue of *Psammopemma* in the family of Spongidæ, will be decided but by later investigations. Of course under such circumstances I prefer to abstain from the creation of a new name.

Both the specimens proved to contain filaments, but while the specimen from Japan is strikingly poor in them, the specimen from the Philippine Islands on the contrary is overloaded with them in not a less degree than the Challenger specimens of *Stelospongos longispinus* or *Cacospongia irregularis*.

Colour.—Specimen from Philippine Islands, pale greyish-yellow. Specimen from Japan, outer surface grey, parenchyma dirty yellowish.

Habitat.—Station 203, October 31, 1874, lat. 11° 6′ N., long. 123° 9′ E.; depth, 12 to 20 fathoms; mud. Station 233A, May 19, 1875, lat. 34° 38′ N., long. 135° 1′ E.; depth, 8 to 50 fathoms; sand.

Stelospongos, O. Schmidt.

Spongidæ with comparatively thick skeletal fibres united in separated columns directed more or less regularly radially from the basis of the sponge towards the outer surface, and consisting each of a compact network of vertical, primary, and horizontal secondary fibres.

[1] *Zeitschr. f. wiss. Zool.*, Bd. xxxv. p. 114.