The specimen proved to contain filaments, not being, however, particularly rich in them.

Colour.—Soft parts dirty white, skeletal-fibres brownish-yellow.

Habitat.—Bahia; shallow water.

Cacospongia collectrix, F. E. Schulze, sp.

Oligoceras collectrix, F. E. Schulze, Zeitschr. f. wiss. Zool., vol. xxxiii. p. 34.

The two Challenger specimens which I group in this species are so different in external shape that, should we classify the Keratosa according to their form, we should be obliged to refer them, at least, to different genera. Yet it is well known that in most cases the external shape as well as the colour in the Porifera are of extremely subordinate consequence, and I am the more inclined to regard both the specimens in question only as individuals of the same species, as in the Dalmatian specimen of *Cacospongia collectrix* described by F. E. Schulze we find a form of, so to speak, neutral characters with respect to the differences above mentioned. These differences concern the mode of growth and the quantity of foreign bodies enclosed in the parenchyma. The Dalmatian specimen just alluded to is represented in Prof. Schulze's paper on pl. ii. fig. 6, and one can see that is not crust-like but of massive shape. On pl. iii. fig. 7, Prof. Schulze gives also a drawing of the anatomical organisation of the specimen in question, and this drawing renders obvious that, contrary to the specific designation of *collectrix*, its soft parts are comparatively free from foreign enclosures. This latter character is common to the Challenger specimen of *Cacospongia collectrix* from the Philippine Islands, while as to its external shape this specimen has been found in the form of a crust. On the contrary, the second Challenger specimen (from Japan) recalls vividly, so far as its exterior is concerned, F. E. Schulze's specimen from Lesina, but its soft parts proved to be overloaded with foreign enclosures, almost exclusively sand grains often 2 to 3 mm. in diameter. It is therefore plain that the above differences may be important enough to justify the subdivision of the species into independent varieties, but in no case of a greater consequence. All this, however, on the supposition that *both* our specimens are really closely allied to *Cacospongia collectrix*, F. E. Schulze. So far as the specimen from the Philippine Islands is concerned this is beyond doubt. This specimen, together with the mussel-shells which it coats, is also of a rather lumpy, massive form; a more attentive examination shows, however, that this is due simply to the aggregation of the mussel-shells, and that the sponge itself is of a well-marked crust-like appearance, sometimes as thin as a leaf of paper. Now, while in some parts of it no skeleton is to be discovered at all, the others are propped by small (2 to 7 mm. high and about 0·5 mm. thick), isolated horny trees very rich in enclosed