

apices; size about 0.31 by 0.0094 mm. (b) *Microsclera*; (1) very minute, slender, spined spirulæ (Pl. XLV. figs. 13a–13d), with some three or four bends and warty rather than spiny; length about 0.0126 mm., diameter about 0.0025 mm. (2) There are also a few much longer and, relatively, much slenderer spined spirulæ; in these it is almost impossible to say how many bends there are, they are as a rule simply crooked and rather minutely spined; length about 0.056 mm. These latter are probably merely elongated forms of the smaller kind. The microsclera are, as usual, most abundant in the dermal membrane, where they form a solid crust penetrated by the pores, but they are also fairly plentifully scattered in the deeper tissues of the sponge.

The tendency to form lobes, shown in some degree by previously described species of the genus, is here carried to an unusual extent. The texture is unusually dense, forming perhaps the most characteristic feature of the species.

*Locality*.—Station 208, January 17, 1875; lat. 11° 37' N., long. 123° 31' E.; Philippine Islands; depth, 18 fathoms; bottom, blue mud. Two fine specimens, and a fragment, containing a very large amount of foreign matter, chiefly shells, which seems to belong to the same species.

*Spirastrella papillosa*, Ridley and Dendy (Pl. XLI. fig. 5; Pl. XLV. figs. 11–11g).

1886. *Spirastrella papillosa*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 491.

Sponge (Pl. XLI. fig. 5) massive, erect, sessile; shape conical, broad at the base and tapering gradually to an obtuse apex, where are situated several large oscula. Near the apex the surface is thrown into deep longitudinal wrinkles. The entire surface, except in the immediate neighbourhood of the oscula, is covered with numerous, closely placed papillæ of considerable size; these show a tendency towards arrangement in longitudinal series; towards the apex of the sponge they decrease in size. Height of specimen about 150 mm.; breadth at base 100 mm. *Colour* in spirit grey. *Texture* fairly firm, but rather spongy and, internally, cavernous. *Surface* uneven, as described above, with a minutely reticulate appearance, and harsh to the touch. The reticulate appearance is caused, or at any rate largely helped, by the arrangement of the microsclera, which are thickly scattered through the dermal membrane in such a manner as to leave small rounded patches, the meshes of the reticulation, almost or quite free from their presence. In these areas are situated the pores, and the corresponding arrangement of the underlying subdermal cavities also helps to give the reticulate appearance to the surface. *Dermal membrane* thin, transparent. *Oscula* large, six or seven in number, grouped at the summit of the sponge, each about 6 mm. in diameter, sometimes a little more. *Pores*; very numerous, rounded openings, thickly placed in the meshes of the