

apparatus is represented by a large meshed thoroughly irregular basal network of the skeletal fibres, with numerous ascending branches directed towards the outer surface, with a denticulated appearance due to conuli, about 0.75 mm. high and 3 to 4 mm. distant from one another. All the fibres are approximately of the same thickness (0.18 mm. on an average), and all cored in their central part, very scantily, however, with foreign bodies. As before remarked, the species would be referred by O. Schmidt to his subgenus *Sarcotragus*, the filaments filling its parenchyma being very thin and fine.

In the skin are numerous fragments of siliceous spicules.

*Colour*.—Parenchyma pale brownish, skeletal fibres deep brown.

*Habitat*.—H.M.S. "Porcupine," Station 13, 1870, off the coast of Portugal; depth 220 fathoms.

*Cacospongia dendroides*, n. sp. (Pl. VIII. figs. 1-3; Pl. VI. fig. 14).

There are in the Challenger collection three specimens, all of a rather Spongelioid shape, and from the same locality, but presenting some distinctions in the structure of their skeleton, so that a subdivision at least into varieties is necessary. One of the specimens is represented on Pl. VIII. fig. 1, and therefore a further description of its general form is superfluous. The other specimens all agree as to their external shape with the one just mentioned, but while the skeleton of this latter (Pl. VI. fig. 14) is composed of an irregular network of comparatively thick and yellow coloured fibres, the skeletons of the two other specimens, which do not differ from the former as to the general character of the network, are composed of fibres twice as thin, forming meshes approximately twice as large as in the former case, and not of a yellow colour but white. Is this a character of individual or of varietal, or of specific significance? I must confess I am not prepared to decide the question, and think it advisable to choose the middle course by establishing two provisional varieties—*dura* for the specimen with more solid fibres, and *friabilis* for the two remaining. In both cases all the skeletal fibres proved to be more or less cored with foreign enclosures. All the three specimens have proved to be full of filaments, and it was in two of them that I found out those dumb-bell-shaped corpuscles to which I have referred on page 14.

If amongst the skeletal fibres of this form the primary—vertically directed—can be still distinguished owing to their comparative thickness, it must yet be added that such a distinction is of a rather conditional character, the skeleton presenting the aspect of a pretty irregular network.

*Colour*.—Pale yellowish-white.

*Habitat*.—Station 208, January 17, 1875, lat. 11° 37' N., long. 123° 31' E.; depth 18 fathoms, blue mud.