

rather abruptly (hastately) pointed, measuring about 0·22 by 0·0063 mm., occurring in the surface brushes.

This is a very pretty and well-characterised species, which may be readily recognised by its external form and more especially by the arrangement of the oscula. From the number obtained by the Challenger it would seem to be abundant near Port Jackson.

Judging from the description and from a preparation of that species, it would appear to resemble *Spongia caliciformis*, Lamarck, most nearly of described forms, but that species, as yet only known from the North Sea, is cup-shaped.

Locality.—Port Jackson; depth, 30 to 35 fathoms. Eleven specimens.

Phakellia papyracea, Ridley and Dendy (Pl. XXXVI. fig. 4).

1886. *Phakellia papyracea*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 478.

Sponge (Pl. XXXVI. fig. 4) very thin, lamelliform. Represented in the collection by fragments only, possibly cup-shaped when alive; perforated all over by very numerous, minute, round (? oscular) openings. Alike on both surfaces. Thickness of lamellæ about 2 mm. *Colour* in spirit yellow or brown. *Texture* fragile. *Surface* fairly even, very minutely hispid. *Oscula* (?) very abundant on both surfaces, minute.

Skeleton.—Reticulate, rather vague and indefinite; distinct fibres present but very loose, composed of large stylote spicules, with spicules of a smaller size scattered between, or also in loose fibres. There is no special dermal skeleton, but the small stylote spicules are very much more abundant at the surface than elsewhere, especially around the oscular (?) openings.

Spicules.—*Megasclera*; of two kinds; (1) large, stout, smooth styli, rarely subtylostylote, usually more or less curved and fairly gradually sharp-pointed, size about 0·7 by 0·02 mm. (2) Much smaller and slenderer styli or subtylostyli, commonly rather crooked; sharply and fairly gradually pointed; size variable, say about 0·35 by 0·0063 mm. but often much smaller.

This is a very delicate species, which perhaps comes near to Bowerbank's *Isodictya infundibuliformis*,¹ more especially if it should ultimately prove to be cup-shaped when perfect, but it is distinguished at once and absolutely from that species by the absence of the oxeote spicules, so that further comparisons are needless. In the absence of the oxeote spicules, however, it agrees with von Marenzeller's *Cribrochalina ambigua*,² but differs widely in the size of the spicules, which, in *Cribrochalina ambigua* "sind Stifte von 0·23 bis 0·34 mm. Länge," while there do not seem to be two distinct sizes as in our sponge.

Localities.—Station 145A, December 27, 1873; lat. 46° 41' S., long. 38° 10' E.; off

¹ Mon. Brit. Spong., vol. ii. p. 317; vol. iii. pl. liv., &c.

² Foriferen, Anthozoën, Ctenophoren und Würmer, von Jun Mayen; Vienna, 1886, p. 1, pl. i. fig. 1.