

fig. 10), more spined at the base than elsewhere; slightly curved and tapering gradually to a sharp point at the apex; size about 0·6 by 0·03 mm., forming the main skeleton. It will be seen from their arrangement that all the spicules of the main skeleton are, in a sense, echinating, so that we cannot distinguish between an echinating and a non-echinating stylus as in some other *Myxillæ*. There are, however, a great many stylote spicules (Pl. XXVII. figs. 10a, 10b) which are much smaller (measuring about 0·28 by 0·013 mm.), and rather more strongly spined than those just described, but otherwise very like them in form, and these are perhaps to be regarded as representing the true echinating spicules; it may be urged that they are merely young forms of the larger ones, but their abundance and tolerable uniformity in size are against this view. (2) *Tylota* (Pl. XXVII. figs. 10c, 10d), usually slightly curved, rather stout, larger at one end than at the other, with oval heads (sometimes not distinguishable), and spined at both ends, size about 0·25 by 0·01 mm.; dermal. (b) *Microsclera*; of two kinds—(1) very numerous tridentate isochelæ (Pl. XXVII. fig. 10e 10f), of peculiar form, the most noticeable feature in which is the presence of a slight swelling in the centre of the curved shaft; length about 0·027 mm.; (2) sigmata, usually much contort, size about 0·044 by 0·004 mm.

The definite form, erect growth and elastic consistency of this sponge call to mind the genus *Clathria*, and the arrangement of the skeleton recalls *Plumohalichondria* rather than *Myxilla*, but the spiculation agrees very well with that of the genus to which we have referred it; in its genus it is further remarkable for the peculiar shape of its isochelate spicule.

Locality.—Station 170, 14 July, 1874; lat. 29° 55' S., long. 178° 14' W.; off Kermadec Islands; depth, 520 fathoms; bottom, volcanic mud; bottom temperature, 43°. One specimen.

Myxilla (?) *plumosa*, Montagu, sp., var. *fusifera*, nov.

1818. *Spongia plumosa*, Montagu, Mem. Wern. Soc. Edin., vol. ii. p. 116.
 1842. *Halichondria* (?) *plumosa*, Johnston, British Sponges, p. 103
 1866. *Microciona carnosa*, Bowerbank, Mon. Brit. Spong., vol. ii. p. 133.
 1866. *Hymeniacion plumosa*, Bowerbank, Mon. Brit. Spong., vol. ii. p. 195.
 1867. *Pronax plumosa*, Gray, Proc. Zool. Soc. Lond., p. 536.
 1870. *Desmacidon plumosa*, Schmidt, Spong. Atlant. Gebiet., p. 76.
 1874. *Microciona plumosa*, Bowerbank, Mon. Brit. Spong., vol. iii. p. 61, pl. xxiv. figs. 7-13.
 1880. *Myxilla plumosa*, Vosmaer, Notes from the Leyden Museum, vol. ii. p. 126.
 1885. *Plumohalichondria plumosa*, Carter, Ann. and Mag. Nat. Hist., ser. 5, vol. xvi. p. 355.

Sponge irregularly lobate. The largest specimen consists of an elongated base, from which arise two lobes; length of base not quite 25 mm., height of larger lobe 25 mm., diameter about 8 mm. *Colour* in spirit pale, greyish yellow. *Texture* soft, spongy, elastic, rather tough and fibrous. *Surface* rather glabrous, but very uneven. *Dermal*