Acanthella (?) stipitata, Carter, var. n.

1881. Acanthella stipitata, Carter, Ann. and Mag. Nat. Hist., ser. 5, vol. vii. p. 380, pl. xviii. fig. 8.

This sponge is represented in the collection by a slight variety from Torres Strait. It differs from the type of the species as described by Mr. Carter (*loc. cit.*)—(1) in having the stem obsolete and represented only by a constricted base; (2) in having the stylote megasclera larger, measuring about 0.5 by 0.009 mm. as against 0.347 by 0.009 mm. (25 by $\frac{2}{3}$ —1800th inch, as given by Mr. Carter). In addition to the large stylus there is in the Challenger specimen a long, very slender spicule which is extremely abundant and often flexuous, and is very likely a young form of the other. Mr. Carter further remarks that the styli in his sponge are "abruptly sharp-pointed;" we cannot say this of our specimen, in which the styli are very gradually sharp-pointed. Mr. Carter's figure of the spicule, however, does not confirm his description.

In habit this variety closely approaches *Clathria frondifera*, which is abundant at the same locality.

We are by no means certain that the species is correctly placed in the genus *Acanthella*; it seems to us to have close affinities with *Echinoclathria*, Carter.

Locality.—Station 186, September 8, 1874; lat. 10° 30' S., long. 142° 18' E.; off Cape York, Torres Strait; depth, 8 fathoms; bottom, Coral mud. One specimen.

Habitat.—Bass Strait (Carter); Torres Strait (Challenger).

Genus Axinella, Schmidt (Pls. XXV., XXXIII., XXXIV., XXXV., XXXVI., XXXVII., XXXVII., XXXVII., XXXVII., XL.).

1862. Axinella, Schmidt, Die Spongien des Adriat. Meeres, p. 60.

Sponge typically ramose, but may be massive. Skeleton fibre plumose. Megasclera stylote and sometimes oxeote. No microsclera.

This is a very critical genus, and it is impossible to give a satisfactory diagnosis of it. It comes very near to *Raspailia*, but the latter is conveniently kept distinct on account of its very characteristic, whip-like external form.

Axinella arborescens, Ridley and Dendy (Pl. XXXV. figs. 4, 4a).

1886. Axinella arborescens, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 479.

Sponge (Pl. XXXV. fig. 4) erect, branched, stem and branches cylindrical or sometimes more or less flattened. Branches often forming anastomoses. Total height of sponge 212 mm.; length of stem up to first branch 50 mm., diameter of same 15 mm.; diameter of branches about 8 mm. *Colour* in spirit greyish-yellow. *Texture* firm