

*membrane* thin and very delicate. *Oscula* rather small, scattered up and down the soft, finger-like processes. *Pores* (? thickly scattered over the finger-like processes).

*Skeleton*.—Loose separate bands of spiculo-fibre run up the centre of each branch and form an ill-defined axis, from which radiate other loose, thin fibres towards the surface, crossed irregularly and sparingly by separate spicules. At the surface are numerous loose, radiating brushes of stylote spicules, whose points project slightly beyond the dermal membrane. The same arrangement holds good, with very slight modification, in the stem.

*Spicules*.—*Megasclera*; very slender, smooth, straight or very slightly curved styli, sharply and gradually pointed at the apex; size about 0.42 by 0.0075 mm.; of the same shape both in the dermal tufts and in the main skeleton, but in the former of only about half the size. The entire skeleton seems singularly insufficient for the requirements of so large a sponge, and, as a consequence, the sponge is very flexible, soft and fragile.

This seems to be a very aberrant species of the genus, as indicated both by its external form and by the extreme sparseness of the skeleton.

*Locality*.—Balfour Bay, Kerguelen; depth, 20 to 60 fathoms. One specimen.

*Axinella mariana*, Ridley and Dendy (Pl. XXXIV. fig. 1; Pl. XL. fig. 2).

1886. *Axinella mariana*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 480.

Sponge (Pl. XXXIV. fig. 1) of delicate growth, erect, proliferously branched; stem short, rather slender; branches rather slender, somewhat flattened. Total height 52 mm., breadth about the same. Length of stem 13 mm., diameter 3 mm. *Colour* in spirit greyish-yellow. *Texture* very soft and friable externally, internally pretty tough. *Surface* of branches echinated by abundant, very long, projecting spicules.

*Skeleton*.—In the centre of each branch there is a fairly dense core of irregularly arranged, short, bent, stylote spicules. In this confused mass are imbedded the bases of very large, stout styli, whose apices project far beyond the surface of the sponge.

*Spicules*.—*Megasclera*; of two kinds—(1) short, smooth (rarely slightly spined) styli or subtylostyli, each with a single sharp bend near the base (Pl. XL. fig. 2, *b*), finely and gradually pointed at the apex; size about 0.3 by 0.013 mm. (but variable). (2) Very long, smooth styli or tylostyli (Pl. XL. fig. 2, *a*), usually with a slight bend towards the base, very gradually and finely pointed at the apex; size about 2.2 by 0.03 mm.; echinating the surface of the sponge and with their own bases echinated by the smaller styli.

This is a pretty little species, distinguished by its external form and by the peculiar shape of the smaller stylote spicule, which seems to be homologous with the "vermicular" spicule of *Axinella erecta*, &c.

*Locality*.—Off Marion Island; depth, 50 to 75 fathoms. One specimen.