

*Texture* soft and spongy, coarsely fibrous; the fibres becoming readily denuded of the soft tissues so as to project freely beyond the surface. *Surface*, where intact, subglabrous but conulose, with a minutely reticulate appearance. *Dermal membrane* peeling off fairly easily from the underlying tissues, not supported by any special skeleton, hence readily tearing. *Oscula* small and scattered. *Pores* scattered through the dermal membrane.

*Skeleton*.—There is no dermal skeleton, but the main skeleton is very strongly developed. It consists of a system of stout fibres, branching and occasionally anastomosing, and coming to the surface in tufts. The fibre itself is very characteristic, consisting in the first place of a core of stylote spicules whose bases are, as a rule, in the centre, and whose apices project more or less outwards and forwards; being thus arranged in a fairly typical Axinellid manner. This spicular core is almost completely ensheathed in spongin, beyond which the apices of only a few spicules project. At the surface each branch of the fibre ends in a small, brush-like expansion. The average diameter of the fibre is about 0.4 mm.; it is, of course, slenderer at the surface than in the deeper parts of the sponge.

*Spicules*.—*Megasclera*; of one form only, viz., smooth styli, slightly bent towards the base and usually very gradually and sharply pointed at the apex; size about 0.63 by 0.015 mm.

This species is peculiarly interesting on account of the unusually strong development of spongin in the skeleton-fibre. It affords an additional good instance of the remarkable fact that horny fibre may be developed in any group of sponges and is hence of very little importance for purposes of classification. The massive form and the putty-like appearance of the surface between the fibres are further points distinguishing the species from its allies.

*Locality*.—Station 313, January 20, 1876; lat. 52° 20' S., long. 67° 39' W.; east of Strait of Magellan; depth, 55 fathoms; bottom, sand; bottom temperature, 47°.8. One specimen.

*Axinella reticulata*, Ridley and Dendy (Pl. XXXVII. figs. 4, 4a).

1886. *Axinella reticulata*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 481.

Sponge (Pl. XXXVII. fig. 4) massive, sessile, with somewhat constricted base below, and several short, thick-walled oscular tubes above. Height 38 mm.; greatest breadth 44 mm.; breadth at base 29 mm. *Colour* in spirit very pale yellow. *Texture* firm, almost incompressible. *Surface* very uneven, beset with numerous small conuli which extend over the oscular tubes, but glabrous. *Dermal membrane* distinct, minutely reticulate (Pl. XXXVII. fig. 4a), but almost or quite without spicules. *Pores* in the meshes of the dermal network; several in each mesh, reducing it to a secondary network. *Oscula*, one at the summit of each oscular tube, about 4 mm. in diameter.