

*Skeleton*.—There is an extremely irregular reticulation of scattered spicules, amongst which one can distinguish rather loose, plumose fibres, running more or less vertically towards the surface.

*Spicules*.—*Megasclera*; (1) rather short and stout, smooth, slightly curved styli; usually with a bend towards the base; sharply and fairly gradually pointed at the apex; size about 0.45 by 0.02 mm. (2) Smooth, curved oxea, sharply and fairly gradually pointed; of about the same size as the styli; scarce.

The most characteristic feature of this sponge is the glabrous, reticulate dermal membrane; the reticulate appearance is not caused by the presence of a reticulate dermal skeleton but by a network of thicker, faintly fibrous-looking tissue in the dermal membrane itself.

The species is further distinguished within its genus by its large, prominent oscula.

*Locality*.—Bahia; depth, 7 to 20 fathoms. One specimen.

*Axinella monticularis*, Ridley and Dendy (Pl. XXXVIII. fig. 5).

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

Sponge (Pl. XXXVIII. fig. 5) massive, subglobular, sessile, but apparently free. The largest specimen measures 44 by 31 by 21 mm. *Colour* in spirit yellowish-grey. *Texture* firm and compact, very gritty owing to the presence of a large quantity of calcareous foreign matter (e.g., Foraminifera) within the sponge. Some of the foreign bodies are large and others small, but all become completely enveloped by the sponge. *Surface* thickly covered with very numerous, sharp, prominent but small conuli, averaging about 1.5 mm. in height, which give to the specimens a very characteristic appearance. Over and between the conuli the surface is glabrous, yet it is in parts very minutely hispid.

*Skeleton*.—There is no dermal reticulation. The numerous foreign bodies in the sponge are echinated by the spicules and many of them also form an origin for stout columns of typical Axinellid spiculo-fibre. The skeleton columns are well developed and run vertically to the surface, ending in the conuli above mentioned. They are composed of stylote spicules of various sizes, some smooth and some (of the smaller ones) spined; the spicules have their bases towards the centre of the fibre and their apices projecting freely outwards and forwards in a plume-like fashion. Normally all the spicules appear to have some definite base, either in the fibre, where each one is supported by the rest, or on some foreign body; but a few may be observed loosely scattered between the fibres.

*Spicules*.—*Megasclera*; styli, of two distinct kinds. (1) Smooth, usually slightly bent towards the base, very gradually and sharply pointed (tapering from base to apex);