

*Texture* soft. *Surface* minutely hispid. *Dermal membrane* distinct, thin, transparent. *Pores* collected into groups, forming small, more or less circular pore-areas, each containing up to about twelve pores, but generally less. The groups themselves are placed close together, scattered over the surface of the sponge. Diameter of the pore-areas about 0.3 mm., of the pores about 0.07 mm. The pores are placed very close together within the pore-areas, being separated only by narrow strands of tissue.

*Skeleton*.—The mass of fibre on which the sponge is based, and which it encrusts, is coarse, amber-coloured, branching and anastomosing, with a very large proportion of horny matter and a core of tylostylote spicules of the characteristic *Esperella* type. This fibre was certainly dead before the present sponge grew over it, as it projects far beyond the soft parts, and the central canals of the enclosed spicules are enlarged; it appears, however, probable that it belongs to an older specimen of the same species. The specimen has in addition its own proper fibre. There is, however, no dermal reticulation. The deeper skeleton consists of a very loose reticulation of spiculo-fibre, very densely spiculous and with very little horny matter. The main fibres are very broad, and as they approach the surface they subdivide and subdivide again, forming spreading tufts of fibres, each ultimate fibre of which breaks up into a brush of separate spicules whose ends project freely beyond the surface of the sponge, penetrating the dermal membrane. The proper fibre of the sponge is probably thus poorly developed owing to the fact that it makes use of the dead skeleton of another sponge.

*Spicules*.—(a) *Megasclera*; of one kind only, viz., tylostyli (Pl. XV. fig. 5), with small head and slightly constricted neck, tapering rather suddenly to a very sharp point and broadest near the apex; size 0.245 by 0.016 mm. The spicules mentioned above as occurring in the horny fibre on which the sponge is based are of about the same length but slenderer. (b) *Microsclera*; (1) rather small palmate anisochelæ (Pl. XV. fig. 11), with a long, narrow palm at the large end; length of spicule about 0.025 mm.; (2) rather large, smooth, simple and contort sigmata (Pl. XV. fig. 14), measuring about 0.12 by 0.0063 mm. The chelate spicules seem to be almost confined to the dermal membrane and are not very abundant even there, while the sigmata are plentiful, both in the dermal layer and in the deeper tissues. The sigmata are often found in groups, in which the spicules are placed close together and parallel with one another.

A noteworthy feature about this species is the absence of a dermal skeleton reticulation. In spiculation it agrees closely with *Esperella porosa*, nobis. The habit of the sponge is very remarkable, the specimen in question having made use of an old and dead skeleton, perhaps of the same species.

*Locality*.—Off Bahia, shallow water. One specimen.