

The rarity of the spined stylote spicules and their occurrence mainly (almost solely) in the oldest part of the sponge suggest the possibility of their being rudimentary and derived from some ancestral form which possessed them in abundance.

Locality.—Off Bahia ; shallow water. One specimen.

Off Bahia ; depth, 7 to 20 fathoms. One specimen.

Raspailia flagelliformis, Ridley and Dendy (Pl. XXXIX. fig. 1).

1886. *Raspailia flagelliformis*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 482.

Sponge (Pl. XXXIX. fig. 1) erect, stipitate, branched ; stem short and stout, rigid ; branches cylindrical, very long and slender, flexible and whip-like ; tapering slightly towards the free end and never anastomosing with one another. Total length of sponge about 425 mm. ; length of stem 44 mm. ; greatest diameter of same 12.5 mm. ; diameter of branches about 4 mm. *Colour* in spirit yellowish-grey. *Texture* ; each branch consists of a dense, tough, horny looking axis, of darkish colour, coated with a thick layer of a soft, rather friable, yellowish substance, which is easily peeled off so as to leave the axis clean. *Surface* very minutely hispid. *Oscula* small, scattered.

Skeleton.—Containing a very large proportion of horny matter accumulated in a well-defined central axis which is also densely charged with the stylote spicules. In this central axis the spicules are arranged in not very definite tracts, which, instead of being truly longitudinal in direction, are slightly oblique, and cross one another at very acute angles, giving rise to a somewhat lattice-like arrangement ; the spicules are, however, very densely packed throughout the whole axis, so that no large open meshes appear. From the central axis there radiate outwards and obliquely upwards, through the soft tissues towards the surface of the branch, abundant but loose bands of spiculo-fibre, formed of spicules like those found in the axis ; these bands terminate at the surface in a dense velvet-like pile, composed of tufts of small, slender, stylote or subtylostylote spicules whose apices project for a very short distance beyond the surface.

Spicules.—*Megasclera* ; of one form only, viz., smooth, very slender styli, straight or nearly so, very sharply but not very gradually pointed at the apex ; measuring in the surface tufts about 0.3 by 0.0032 mm. (very often shorter), and in the deeper parts of the sponge about 0.45 by 0.009 mm.

This sponge has a considerable resemblance both in external form and in its spiculation to *Raspailia australiensis*, Ridley,¹ from Port Darwin, but differs in being branched, in its thicker and more friable cortical layer, and in the smaller size of its spicules ; with the exception of the character of the external form, the same remarks apply to its relations to the reticulate *Raspailia clathrata*, Ridley² from Torres Strait.

Locality.—Simon's Bay, Cape of Good Hope ; depth, 10 to 20 fathoms. One specimen.

¹ Zool. Coll. H.M.S. "Alert," Brit. Mus., 1884, p. 460, pl. xlii. figs. *m*, *m'*.

Op. cit., p. 461, pl. xli. fig. F.