Desmacidon reptans, Ridley and Dendy (Pl. XXIII. figs. 7, 7a, 7b).

1886. Desmacidon reptans, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 345.

Sponge encrusting, creeping over other sponges of different species, or free; massive, amorphous, or digitate. *Colour* in spirit greyish-yellow. *Texture* fairly firm, resilient. *Surface* glabrous-looking, but slightly rough to the touch, marked with shallow and for the most part longitudinal grooves. *Dermal membrane* thin and delicate. *Oscula* small, scattered. *Pores* small, scattered.

Skeleton.—(a) Dermal; varying in its degree of development according to the particular specimen examined. Sometimes it is composed of a comparatively wide-meshed reticulation of stout fibre, composed of broken spicules and foreign bodies, while the polygonal meshes of this network are again filled in by the much smaller polygonal meshes of a finer network, composed of more slender fibre, but of the same character. The meshes of the finer reticulation are only about 0.07 mm., while those of the coarser reticulation may be 0.35 mm. in diameter. The finer reticulation appears to be at a slightly higher level than the coarser one. At other times the two reticulations are not distinguishable from one another, the whole dermal skeleton is more irregular, and the foreign bodies are in great part or entirely replaced by the proper oxeote spicules of the species; while again at other times the number of foreign bodies present in the fibres may be very great, consisting chiefly of sand grains. (b) Main; an irregular, fairly close, somewhat Isodictyal reticulation of oxeote spicules, often several lying parallel side by side, but rarely united into distinct fibres.

Spicules.—(a) Megasclera; of one kind only, viz., smooth oxea (Pl. XXIII. figs. 7, 7a), tapering rather abruptly to a sharp point at each end; size about 0.18 by 0.008 mm. (b) Microsclera; of two kinds; (1) isochelæ (Pl. XXIII. fig. 7b), with three sharp teeth at each end, length about 0.019 mm., rather rare; (2) numerous simple or contort sigmata, about 0.038 mm. long.

In spiculation this species comes near to Desmacidon fruticosa, Montagu, sp., the type of the genus.<sup>1</sup> It differs, however, in the much slighter development of horny matter in the fibre, and in the much smaller size of the chelate spicule (0.032 mm. long in Desmacidon fruticosa as against 0.019 in Desmacidon reptans). The habit appears also to differ considerably.

The sponge affords a good example of the way in which foreign bodies may replace the proper skeleton, being arranged along the true skeleton lines.

Locality.—Off Bahia, shallow water; two specimens. Off Bahia; 7 to 20 fathoms; three specimens and some pieces.

<sup>1</sup> Cf. Bowerbank, Mon. Brit. Spong., vol. i. p. 200, &c.