

II. Microscleres. 4. *Microstrongyle*, fusiform or bacillar, centrotylote or not, surface much roughened by minute spines, 0.03 mm. in length. 5. *Spiraster*, 0.02 mm. in length, sometimes passing into a quadriradiate aster.

*Colour*.—Brownish-grey. Size, base about 20 mm. in diameter, 11 mm. in height.

*Habitat*.—Havanna; depth, 120 to 240 fathoms.

*Remarks*.—Several tangential slices from the general surface were made to determine the character of the pores, but only one or two simple oval openings were detected; these measured from 0.02 to 0.06 mm. in diameter, and were situated over the superficial water canals, which are bounded on three sides by the desmas, and on the fourth and outer side by the discotriænes. It would appear from the rarity of pores over the general surface that some special poriferous area must exist somewhere on the sponge; to determine this and the character of the oscules, tangential slices were taken from two of the slight eminences which form the centre of the stellate systems of superficial canals. Both of these presented numerous small round or oval apertures, from 0.02 to 0.08 mm. in diameter, and in their neighbourhood the discotriænes presented much deeper incisions of the margin than in other regions of the sponge, *i.e.*, they are distinguished by poral sinuses, while rhabdal sinuses alone, or almost alone, occur in the cladomes of the triænes of the general surface. Similar as the openings on the different eminences are to one another, a difference in function is not precluded, and it is quite possible that the pores of one eminence may be truly incurrent apertures, and of another excurrent. Schmidt seems to speak of the presence of a distinct oscule with a small cloaca; nothing of the kind could be discerned in the specimens sent me by Professor Agassiz, and labelled *Discodermia nucerium* in Schmidt's own handwriting.

A portion of the surface is overgrown by an incrusting *Desmacidine* sponge.

### *Racodiscula polydiscus* (O. Schmidt).

*Corallistes polydiscus*, O. Schmidt, Spong. Atlant. Gebiet., p. 24, pl. iii. figs. 8, 9, 1870.

*Racodiscula asteroides*, Zittel, Abhandl. d. k. baier. Akad. d. Wiss., Bd. i. pp. 103, 151, 1878.

? *Pomelia schmidtii*, Zittel, *tom. cit.*, p. 126, pl. i. fig. 4, 1878.

*Discodermia polydiscus*, O. Schmidt, Spong. Meerb. Mexico, p. 22, 1879.

*Sponge*.—Variable in form, clavate, with a short pedicle and expanded base for attachment, or cushion-shaped or cylindrical, bearing several small circular oscules at the summit, the openings of vertically descending excurrent canals. Pores (?).

*Spicules*.—I. Megascleres. 1. *Desma*, epactines cylindrical, smooth, syzygial tubercles rounded. 2. *Discotriæne*, cladome, margin entire or lobate, 0.23 mm. in diameter. 3. *Oxea*.

II. Microscleres. 4. *Microoxea*, fusiform, centrotylote, slender, 0.035 by 0.0025 mm. 5. *Microstrongyle*, bacillar, surface much roughened by minute erect spines, 0.016 by