

arrangement of the skeleton, the shape of the spicules, and the presence of only one kind of microsclera, the last being a very remarkable point. *Esperia stolonifera*, Merejkowsky, from the White Sea,<sup>1</sup> has a very similar spiculation, the stylus being, as here, not tylote, but the anisochela is much narrower in that species than in *Esperella mammiformis* and only about half the length. Lying in the soft tissues at the bases of the specimens were a number of small, round, or sometimes hemispherical embryos, which will be found described in the Introduction.

It is noteworthy that the soft parts of the sponge contained a large number of foreign bodies, such as Diatoms, &c.

It appears that the sponge may sometimes live free on the sea-bottom, the base being in these cases "pinched up" (as represented on Pl. XIV. fig. 5) instead of flat and expanded; or possibly the sponge may have been attached to a very small object.

*Locality*.—Station 147, December 30, 1873; lat. 46° 16' S., long. 48° 27' E.; east of Prince Edward Island; depth, 1600 fathoms; bottom, Diatom ooze; bottom temperature, 34°·2. Six specimens, mostly much damaged.

*Esperella lapidiformis*, Ridley and Dendy (Pl. XV. figs. 2, 10, 10a; Pl. XVI. figs. 2, 2a, 2b).

1886. *Esperella lapidiformis*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 338.

Sponge (Pl. XVI. fig. 2) massive, squarish, with rounded corners; resembling nothing so much as a water-worn boulder, whence the specific name. It has apparently been attached by one corner, which is much frayed out. Length 131 mm., breadth 88 mm., thickness 69 mm. *Colour* in spirit yellowish-grey. *Texture* very soft and yielding, but fibrous. *Surface* even, but minutely hispid. *Dermal membrane* thin and transparent. *Oscula* (Pl. XVI. fig. 2b, o) very distinct and characteristic, consisting of numerous short, wide, tubular processes, scattered over the upper end of the sponge. The wall of each tube is thin and membranous, strengthened by very closely placed spiculo-fibres, which, on approaching the free edge, break up into their component spicules, which form a slight projecting fringe around the osculum. Average width of osculum about 8·3 mm. Length of tubular process about 6·2 mm. There are about twenty such oscula, and they are confined to the upper end of the sponge. *Pores* distinct, very numerous, scattered irregularly over the surface of the sponge, so closely placed as to reduce the dermal membrane to a network; shape generally oval, longest diameter about 0·15 mm.

*Skeleton*.—(a) *Dermal*; absent, except in the tubular processes around the oscula, as described above. (b) *Main*; composed of an irregular, rather loose reticulation

<sup>1</sup> *Mém. Acad. Sci. St. Petersb.*, vol. xxvi. pt. vii. p. 23.