

*Spicules*.—(a) *Megasclera*; smooth, rather slender styli (Pl. XLV. fig. 9), hastately pointed and often slightly crooked; size about 0.6 by 0.014 mm.; often with slight irregular inflations on the shaft. In the Kerguelen specimen these spicules are a trifle shorter and stouter, and there occur also a very few, apparently abnormal, much larger forms. (b) *Microsclera*; discastra, the "chess-man" spicules, which in this species resemble in form miniature fir trees (Pl. XLV. figs. 9a, 9b, 9c); each spicule is composed of an expanded, spinose base, followed immediately by a rather irregular whorl of separate short spines; then comes a short, stout, smooth, cylindrical shaft which suddenly expands into a broad, flattened, circular whorl with denticulated margin; three of the indentations are so deep as to cut right down to the shaft, thereby dividing the circle into three distinct segments (Pl. XLV. fig. 9b). This is much the largest of the whorls, and is followed by three or four others gradually lessening in size till they end in a few small spines on the shaft. The shaft itself is produced into a long, smooth, terminal portion, gradually tapering to a fine point, and sometimes curved. Total length of spicule about 0.126 mm., of which the apical prolongation may form nearly half; diameter of largest whorl about 0.044 mm.

The most characteristic feature about this species, and that from which the specific name has been derived, is the apical prolongation of the discaster, by which it may at once be distinguished. The geographical distribution is very interesting; we have, during the course of our description, indicated various slight differences between the specimens from the two localities, but there is nothing to justify us in separating them specifically. Details regarding the minute anatomy will be found in the Introduction.

*Localities*.—Off Christmas Harbour, Kerguelen, January 29, 1874; depth, 70 fathoms. One specimen.

Station 320, February 14, 1876; lat. 37° 17' S., long 53° 52' W.; off the mouth of the Rio de la Plata; depth, 600 fathoms; bottom, green sand; bottom temperature, 37°.2. Two specimens.

*Latrunculia brevis*, Ridley and Dendy (Pl. XLIV. fig. 5; Pl. XLV. figs. 10, 10a).

1886. *Latrunculia brevis*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 492.

Sponge (Pl. XLIV. fig. 5) massive, sessile, usually attached by the base to some foreign object, and with more or less convex upper surface beset with numerous conical processes. The best specimen in the collection is attached by a narrow base to a fragment of *Sporadopora*; it is about 63 mm. in diameter, and the upper surface is rather flattened and thickly covered with the conical osculum-bearing processes, which are about 6 mm. in height. *Colour* in spirit yellowish-grey. *Texture* fairly compact