(tornota). These spicules form a network immediately below the dermal membrane, giving to the surface of the sponge a characteristic lace-like appearance, and great numbers of them also project from the surface in divergent brushes.

Spicules.—(*a*) *Megasclera;* (1) the large, stout, smooth styli (Pl. XXIII. fig. 2), confined almost exclusively to the deeper parts of the sponge; often rather strongly curved and somewhat hastately pointed at the apex, but with the point often blunted; size about 0·7 by 0·03 mm. (2) The dermal spicules (Pl. XXIII. figs. 2*a*, 2*b*); these are rather slender, straight, and sub-hastately but not very sharply pointed at each end; sometimes they have distinct, though small, heads, but very frequently the heads cannot be distinguished from the shaft. Size about 0·45 by 0·013 mm. (*b*) *Microsclera;* very numerous long, fine, oxeote rhaphides, up to about 0·8 mm. in length; often collected into fibres as above stated, but also found abundantly scattered about in the soft tissues of the sponge (? due to displacement and breaking up in cutting sections), and in the dermal membrane. They often exhibit a roughening of the surface similar to that remarked on in the corresponding spicules of *Tedania tenuicapitata.*

This species was obtained by the Challenger in great quantities off the mouth of the Rio de la Plata and the eastern end of the Strait of Magellan. In the form of the diactinal megasclera it comes near to *Tedania tenuicapitata*, Ridley, but it may be readily recognised by the arrangement of the skeleton, the size and shape of the styli, and the lace-like appearance of the surface.

The most remarkable feature of the species is the enormous size to which it attains. Judging from the quantity brought home from Station 320, we must imagine it in that locality coating portions of the sea-bottom in great spreading sheets.

Localities.—Station 163D, June 12, 1874; lat. 33° 57′ 30″ S., long. 151° 39′ 15″ E.; depth, 120 fathoms; bottom, green sand. One small, dark-coloured specimen, which has apparently been taken from a crab's back, and seems to be referable to this species.

Station 313, January 20, 1876; lat. 52° 20′ S., long. 67° 39′ W.; east of the Strait of Magellan; depth, 55 fathoms; bottom, sand; bottom temperature, 47°·8. Several fair-sized pieces.

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. A large quantity; some specimens of very large size.

Tedania infundibuliformis, Ridley and Dendy (Pl. XI. fig. 1; Pl. XXIX. figs. 2, 2*a*).

1886. *Tedania infundibuliformis*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 335.

Sponge (Pl. XI. fig. 1) erect, lamellar, funnel-shaped.[1] The single specimen present consists of a deep hollow cup, slightly compressed, so as to have an oval section, and

[1] This, as in *Phakellia ventilabrum*, is very possibly not a constant character of the species.