Thenea fenestrata, O. Sch., had no more right to specific distinction than some of the abnormal varietal forms of the former species; Vosmaer, in a subsequently published paper, expresses very decidedly the same opinion; I had not at that time examined specimens of Thenea fenestrata, and had, like Vosmaer, to depend solely on Schmidt's descriptions, which were inadequate, the sole distinction between this and allied species to be elicited from them being one of external form merely. The Challenger specimens having afforded me additional information, I am now prepared to recognise the species as valid.

At Station 106 four or five specimens were trawled, one fairly large and full grown, the others small and apparently young forms. The large specimen measures 44 by 35 mm. in length and breadth and 24 mm. in height. The oscule is central, concealed by its surrounding fringe of spicules, the upper and lower surfaces are smooth, except to touch. The poriferous areas, seven in number, are elliptical, with their long axes directed equatorially, and about 10 mm. long, they are well defended by long spicular fringes. The upper fringe of spicules is sometimes united to the lower by a single fibrous thread, apparently muscular, and if so serving to close the upper fringe like a lid on the lower.

The smaller specimens all differ in form from the larger, the oscule being lateral and not more than one or two poriferous areas being present, they occur on the margin opposite the oscule. Schmidt describes similar forms amongst those he examined, and appears to attribute their divergence from the typical form to a difference in age. In full-grown examples the poriferous areas number from five to seven, according to Schmidt.

At Station 123 a whole specimen and a fragment were obtained; the former is almost perfectly symmetrical in shape; its, on the whole, elliptical margin measures 49 by 31 mm. in length and breadth, its height is 20 mm. There are six poriferous areas, their margins are produced into membranous tubes; and they are regularly arranged three at each end of the elliptical margin, as though at the corners of an elongated hexagon. In the middle of the upper surface is the conical membranous cloacal tube bearing the oscule with its long spicular fringe. So strikingly radiate is the whole appearance of this sponge that it is fortunate, as preventing vain analogies, to find that the number six as regards the poriferous areas is not rigidly adhered to in other specimens. The specimens from the two different stations are remarkably similar to each other in all respects; the chief differences are to be found in the absence of the terminal mucrone from the anatriænes of the specimens of Station 123, and in the greater thickness of the spicules generally in the specimens from this locality. The plesiasters and spirasters are similar in both.

The ectosome is a well-developed layer of irregular thickness, sometimes as much as

¹ Ann. and Mag. Nat. Hist., ser. 5, vol. ix. p. 436, 1882.

² Report on the Sponges of the "Willem Barents" Expedition, Nied. Archiv f. Zool., Suppl., Bd. i., 1882.