

due to the dermal membrane having been in most parts rubbed off, exposing the subdermal cavities. *Dermal membrane* very thin and delicate, with numerous rounded pores, about 0.53 mm. in diameter.

*Skeleton*.—(1) Of the stalk. The stalk is composed of a thick, dense core of spiculo-fibre composed of closely packed, longitudinally arranged, oxeote spicules. Around this is a thin layer of soft tissues, containing numerous loosely placed spicules, both megasclera and microsclera. (2) Of the body. (a) *Dermal*; a very loose and irregular reticulation of oxeote spicules supporting the dermal membrane. (b) *Main*; a loose reticulation of oxeote spicules in which one can, however, distinguish certain loose main bands of spicules running in a direction vertical to the surface of the sponge. At the surface these spicules project freely, giving it a characteristic hirsute appearance. There are also numerous spicules placed transversely, running from one to another of the above mentioned main bands, the whole skeleton forming an irregular and but slightly coherent network.

*Spicules*.—(a) *Megasclera*; sharp-pointed oxea (Pl. XIII. fig. 2) tapering rather gradually towards each end. In the body they show a tendency to become blunted, and in the stalk to become irregularly pointed as if in process of absorption. Size about 0.5 to 0.7 mm. by 0.022 mm. (b) *Microsclera*; very numerous small sigmata (Pl. XIII. fig. 9) of the usual shape, but often scarcely, if at all, contorted, measuring 0.02 by 0.002 mm.<sup>1</sup>

The presence of a distinct stalk, the cup-like shape of the body, and the hirsute appearance of the surface, are all characters which serve readily to distinguish this species from all other known species of the genus. In the spicules themselves there is nothing characteristic. Owing to its well-defined and elegant external form this is perhaps the most remarkable species of the genus as yet known.

*Locality*.—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. One specimen.

*Gellius angulatus*, Bowerbank, sp.

1866. *Halichondria angulata*, Bowerbank, Mon. Brit. Spong., vol. ii. p. 233; (vol. iii. p. 101, pl. xli. figs. 4–8).

1880. *Desmacodes angulatus*, Vosmaer, Notes Leyden Mus., vol. ii. p. 107.

Three small globular specimens of this sponge, the smallest about the size of a pea (8 mm. in diameter) and attached to a Polyzoon, the other two about 6 to 18 mm. in diameter, were obtained by the Challenger at Station 75, at a depth of 450 fathoms. The species has already been fully described and figured by Bowerbank (*loc. cit.*), with the exception that he omits all mention of the sigmata amongst the microsclera. That

<sup>1</sup> There are also a very few long, thin, hair-like spicules, very possibly foreign, but interesting, because similar ones occur in great abundance in another species of *Gellius*, from the same locality (*vide Gellius* sp., p. 46).