

ments; without knowledge of this important character identifications are usually a very difficult matter; the figures and description of the external form and spiculation of this sponge are, however, sufficient to convince us that we have really got hold of the same thing, and this conviction is strengthened by the fact that both specimens come from high northern latitudes.

The spiculation (taken from the Challenger specimen, for we have had no opportunity of examining the original type) is as follows:—(a) *Megasclera*; of one kind only, viz., smooth, slender, straight subtylostyli, with slightly developed oval heads, and tapering gradually to a fine point at the apex; size about 0·6 by 0·0075 mm. (b) *Microsclera*; of two kinds; (1) minute isochelæ, very abundant, about 0·0126 mm. long; (2) slender toxa, with spined ends, size very variable, apparently reaching as much as about 0·4 mm. in length (as shown by a single broken spicule, of which one limb was measured and doubled to give the total length), commonly much smaller, about 0·15 mm. long.

Locality.—Station 49, May 20, 1873; lat. 43° 3' N., long. 63° 39' W.; south of Halifax, Nova Scotia; depth, 85 fathoms; bottom, gravel, stones; bottom temperature, 35°·0. One specimen, attached to a stone.

Habitat.—Arctic Seas (Vosmaer); south of Nova Scotia (Challenger).

Genus *Phelloderma*,¹ Ridley and Dendy (Pl. XXIII.).

1886. *Phelloderma*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 347.

Corticate, with a cork-like ectosome. Megasclera all monactinal, styli or tylostyli, radiating towards the surface, with the points directed outwards; microsclera isochelæ.

In the presence of a distinct cortex, and in the radiate arrangement of its skeleton, this genus approaches the Suberitidæ, but its stylote megasclera and isochelate microsclera leave no doubt that its real place is amongst the Desmacidonidæ. Although there is only a single specimen, yet its characters are so well marked that they appear to us to justify the erection of a new genus for its reception.

Phelloderma radiatum, Ridley and Dendy (Pl. XXIII. figs. 8, 8a, 8b, 8c, 8d).

1886. *Phelloderma radiatum*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 347.

Sponge subglobular, with a concave base of attachment (originally based upon a *Sporadopora*, from which it has been removed), about 13 mm. in diameter, with a

¹ From Greek φελλός, cork; and δέρμα, skin.