

owing to the lateral position of both oscule and poriferous recess, which are of nearly equal size and situated on opposite sides of the Sponge.

As a rule radical fibres descend from the base of the Sponge and either end separately in splayed out leashes, or become matted together into a basal mass.

The spicules usually include the following:—

I. Megascleres—(1) oxea; (2) protriæne or plagiotriæne; (3) dichotriæne with very long deuterocladi; (4) anatriæne, which may be differentiated into a somal and radical form.

II. Microscleres—(1) spiraster, or amphiasster; (2) metastar, and (3) plesiaster or oxyaster.

Although the mesoderm is always collenchymatous, it is very variable in quantity, sometimes being reduced to a minimum, so that the folding of the choanosomal plate is obvious, sometimes on the other hand increasing to so great an extent that no suggestion of the origin of the canal-system by folding is discernible, the canals being provided with thick collenchymatous walls, and vela occurring at intervals no further apart than the diameter of the canal, which is thus converted into a succession of vesicles. Reproduction is both sexual and asexual (by external gemmation).

Genus 2. *Characella*, Sollas.

Characella, Sollas, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 187, 1886.

Theneidæ of irregular form; oscules and pores not regularly distributed; megascleres not radially arranged, consisting of oxeas and orthotriænes and dichotriænes; the triænes are confined to the ectosome. The microscleres are microxeas and amphiassters. The mesoderm is a collenchyma, containing numerous granules.

Type—*Characella aspera*, n. sp.

This genus is closely allied to *Pæcillastra*, from which it differs by the absence of triænes from the choanosome. The character of the mesoderm may furnish another point of distinction.

Genus 3. *Pæcillastra*, n. n.

Normania, Bwk., Norman, Brit. Assoc. Report, p. 328, 1868.

„ Bowerbank, Mon. Brit. Spong., vol. iii. p. 258, 1874.

„ Sollas, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 185, 1886.

Theneidæ without special symmetry, but usually of plate-like form, bearing on one surface the oscules and on the opposite the pores, which are never collected into special recesses. The skeleton consists of oxeas, triænes, and calthrops, which are aggregated into more or less longitudinal and transverse bundles or indistinct fibres, the triænes