of the sponges dredged from Mr. Marshall Hall's yacht.[1]

Sponges belonging to other groups from the deep water were nearly equally interesting. I have already alluded, p. 188, to the handsome branching sponges belonging to the Esperadiæ, which abound off the coasts of Scotland and Portugal. Near the mouth of the Strait of Gibraltar a number of species were taken in considerable quantity, belonging to a group which were at first confused with the Hexactinellidæ, on account of their frequently forming a similar and equally beautiful continuous network of silica, so as to assume the same resemblance to delicate lace when boiled in nitric acid. The Corallio-spongiæ differ, however, from the Hexactinellidæ in one very fundamental character. While in the latter the spicule is hexradiate, in the former it consists of a shaft with three diverging rays at one end. These frequently spread in one plane, and they often re-divide, and frequently the spaces between them are filled up with a secondary expanse of silica, variously frilled and netted on the edge, so as to give the spicule the appearance of an ornamental flat-headed tack. These three-rayed stars or disks, in combination, support the outer membrane of sponges of this order; and spicules of the same type, fused together according to various plans, form the sponge skeleton.

This group of sponges are as yet imperfectly known. They seem to pass into such forms as *Geodia* and *Tethya;* and the typical example with which we are most familiar is the genus *Dactylocalyx*, represented by the cup-shaped pumice-like

[1] Monthly Microscopic Journal, November 1, 1870.