

tinellida collected on the coasts of Spain and Portugal, a full-grown siliceous skeleton which he identified as *Farrea occa*, Bowerbank.

This form consists of a continuous branched tube exhibiting anastomoses here and there, and measuring from 5 to 8 mm. in diameter. The tube opens by a slightly funnel-shaped, expanded and projecting cup about 1 cm. in width. To conclude from the figures given¹ all the tubes consist only of a simple framework with quadrate meshes. Although in this the specimen described by Saville Kent quite agrees with the network of siliceous beams, regarded by Bowerbank as the dermal skeleton of his *Farrea occa*, yet it differs from the latter in the circumstance that the beams of the framework are not smooth externally, but are beset with pointed tubercles. In this character it rather resembles the siliceous network regarded by Bowerbank as part of the inner body skeleton of his *Farrea occa*.

On the same *Lophohelia* stock upon which the specimen which was determined as *Farrea occa*, Bowerbank, had been found, Saville Kent also observed some "small fistulose ramifications bridging over the minor interspaces between the branches of the coral." He regarded this sponge, in spite of the great similarity with the adjoining *Farrea*, as a species belonging to another, and even a new genus, which he named *Aulodictyon*. From the genus *Farrea* this is said to differ in the following points:—"In *Farrea* the basal skeleton is composed of a single reticulated lamina; in *Aulodictyon* the basal skeleton consists of a complex reticulate tube between, and continuous with the primary meshes, of which an abundant network of coalescing simple hexradiate stellate spicula occurs." Moreover "the minuter spicula of the sarcoderm" are also said to be "of an entirely different type." And since Oscar Schmidt had, in the case of his *Farrea facunda*, described no single-layered dictyonal framework in the basal part, but a complicated network of several layers, and isolated spicules, similar to those found by Kent in his *Aulodictyon*, the latter was of opinion that Schmidt's *Farrea facunda* ought to be referred as *Aulodictyon facundum* to his new genus.

As I shall show further on, however, all tubular species of *Farrea* have in their basal portion a dense dictyonal framework of several layers, and also the "long attenuate spicules inflated at the extremity and reflecto-peltate, with a dentate margin or with a simple series of recurved hooks," which Kent looks upon as characteristic peculiarities of his genus *Aulodictyon*. Consequently the genus *Aulodictyon* must be entirely abandoned.

In the survey of all the above described Hexactinellida which Carter gave in 1873,² this accurate observer first sharply distinguishes the two siliceous networks found on the already often mentioned original specimen of *Euplectella cucumer*, Owen. These had been described by Bowerbank as dermal and body skeleton of one and the same sponge, while

¹ *Loc. cit.*, pl. lxiv. figs. 12, 13, 14.

² *Ann. and Mag. Nat. Hist.*, ser. 4, vol. xii. p. 360.