1875 and 1876, we can obtain only in four cases any adequate conception of their form; namely, on the one hand, in the case of *Farrea gassioti* and the very closely related *Farrea pocillum*, both of which have the same cup-like form; and on the other hand, in the case of *Farrea fistulata* and *Farrea lævis* both of which are tubuliform and are also closely related to one another. Which of the other ten species belong to the one or the other of these two groups of forms, or perhaps to neither, it is scarcely possible to say on account of the small size and imperfect condition of the fragments examined. According to Bowerbank's own representation his *Farrea spinulenta* seems to agree for the most part with the old *Farrea occa*, Bowerbank, so far as regards the lattice-like framework. If this agreement were indeed more intimate it would be of great importance for the establishment of the generic character of *Farrea*, because some free siliceous spicules were found and described by Bowerbank in the dried soft parts, and these are absent in the other cases. We must regret that Bowerbank has communicated no definite information in regard to the free spicules which he mentions as having been found in "various forms" in an original fragment of his *Farrea occa* (and indeed in the so-called dermal skeleton); he only says (page 561) that in *Farrea spinulenta* one may find that "the large simple rectangulate sexradiate interstitial spicula with spinous radii, a few of which are entangled in the inner surface of the dermal rete, also form efficient specific characters, none such having hitherto been found in *Farrea occa*."

In his description of the sponges of the Gulf of Mexico—1880—Oscar Schmidt maintains his previous diagnosis of the species *Farrea facunda*. To the spicules then described as characteristic he adds a hexradiate form in which every individual ray divides at the extremity into from two to four (usually three) fine bristle-like teeth, and he conjectures that in the previously examined specimens certain spicules represented on his pl. v. fig. 9, which bear on each of their thickened extremities four transversely arranged and somewhat recurved hooks, might be present as well as in the specimens subsequently studied. He further reports that in the majority of his numerous specimens those peculiar broom forms (Besengabeln) figured on pl. i. figs 18, 19,[1] and in some the umbelled spicules represented in fig. 2 of the same plate, were not to be found. He is, however, by no means inclined to erect a specific difference on that account, and that the less since the familiar fir-tree-like spicules occurred here and there instead of the absent "brooms." Only one form—in which the absent umbel and hook spicules are represented by the so-called knob-broom form, that is to say, by forks with several teeth which do not run out to points but terminate in terminal knobs, and which were in the meantime described by Carter as *Eurete farreopsis*—should be excluded from his *Farrea facunda*, and at any rate become the representative of a special species. On the other hand, the genera *Eurete* and *Aulodictyon*, which were placed near *Farrea* by Semper

[1] Spongien des atlantischen Gebietes, 1870.