in part, quite regularly formed with six long, smooth, conical rays, and in part more irregularly with bent and knotted rays. Wyville Thomson describes as peculiar "flesh spicules" the small regular hexradiate forms which cover the skeletal framework and are abundantly scattered throughout the soft parts, and also the elegant structures which were termed "floricomo-hexradiate stellate" by Bowerbank, in which each of the six principal rays is continued into a small, outwardly curved, richly pronged, terminal plate, and into a petaloid system of small branches which are bent in an S-shaped manner, and widened at their extremities. The network of fibres forming the terminal sieve-plate, which extends all round the sharply truncated lip-like upper walls of the tube, consists of the very same elements as the wall of the tube, but appears more closely woven, and exhibits large six-rayed spicules between the rod-like forms, which are in general somewhat short. Besides this completely preserved skeleton, which has been figured by Wyville Thomson from a photograph, the Museum of the Jardin des Plantes in Paris is said to contain a second injured specimen and a fragment of a third.

As to the other form, designated by Gray Corbitella speciosa—Habrodictyum speciosum, Quoy and Gaimard-Wyville Thomson was able to study only the single specimen contained in the Museum of the Jardin des Plantes, and labelled 'Alcyoncellum corbicula Val. tiré par 80 brasses de profondeur dans la rade de St. Denis de Bourbon par M. Leschenault 1819." This is probably identical with the specimen first described and figured as Alcyoncellum speciosum by Quoy and Gaimard in their great work. It exhibits a lattice-like tube 19 cm. long, which gradually widens from a base which, when fully grown, is 32 mm. broad, to a free upper extremity which is 60 mm. in breadth. The lateral wall of the tube does not, as in Heterotella corbicula, end in a sharply truncated upper margin, nor become closed by a flat transverse sieveplate, but, without changing in texture, bends inwards, and so forms a curved arch which serves to close the tube above. While the rod and spindle-like spicules which compose the lattice-like framework, and also the larger six-rayed spicules, resemble the corresponding elements of the other species except in a few differences in size, and while both the above-mentioned small, stellate six-rayed forms and "floricomo-hexradiate stellate spicules" recur in similar form and size scattered through the soft body, there is further a very abundant occurrence of a flesh spicule, which has not been certainly observed in Habrodictyum corbicula, namely, a small hexradiate form with its branches divided longitudinally in a forked or trifid manner. It was the great abundance of this form, which Bowerbank termed a "bifurcate rectangulated hexradiate spicule," which mainly induced Wyville Thomson to regard Habrodictyum speciosum, Quoy and Gaimard, in every

<sup>&</sup>lt;sup>1</sup> The circumstance already recorded by Gray (Ann. and Mag. Nat. Hist., ser. 4, vol. i. p. 173) is striking, and one by no means easy to reconcile with the above supposition, namely, that in the Voyage de l'Astrolabe Quoy and Gaimard note that their specimen was presented to them by Mr. Merkus, governor of the Moluccas. In order to reconcile the two statements it must be accepted that the elegant form which Mr. Merkus presented did not come from the Moluccas, but from the Isle of Bourbon.