and while Bowerbank included in his genus Alcyoncellum, in addition to the well-known species Alcyoncellum aspergillum, the two species designated Alcyoncellum corbicula and Alcyoncellum robustum, Gray separated the genus Alcyoncellum from Euplectella, and divided it into two genera, Corbitella and Heterotella.

Corbitella, which included the single species (figured) Corbitella speciosa, was characterised thus:—"The tube clavate, rather irregular, rounded at the end, formed of slender fascicules of open elongate filiform spicules, placed in longitudinal transverse and oblique directions, forming an irregular network;" the genus Heterotella, on the other hand, with the single species Heterotella corbicula, is defined as follows:—"The tube short, rather irregular, conical, truncated, irregularly netted. Skeleton formed of thick bundles of very numerous slender spicules, placed in all directions, and forming an irregular network, similar to the network of the lid of Euplectella."

Soon after this, however, Wyville Thomson, in his renowned contribution On the Vitreous Sponges, again united the two genera of Gray, Corbitella and Heterotella, into one, on account of the great similarity of their form, structure, and siliceous spicules, and named the genus Habrodictyon. His characters for this new genus are as follows:2-"Sponge body subcylindrical, tubular, attached by a slightly contracted base. walls of the tube composed of a perfectly irregular network of bundles of siliceous needles loosely and irregularly arranged in sheaves crossing one another at low angles, and connected by a small quantity of soft mucilaginous sarcode. The spicules of the skeleton all essentially of the hexradiate form, free and separate from one another, or rarely connected in groups of two or three. The spicules of the sarcode numerous 'floricomohexradiate stellate,' and various simple and branched modifications of the hexradiate type." The two forms Habrodictyon speciosum and Habrodictyon corbicula were examined afresh in respect at least to the skeletons which had already been studied by Bowerbank and Gray, and which are preserved in the Museum of the Jardin des Plantes in Paris. One of these which bears the museum label "Alcyoncellum corbicula, Valencienne, donné par M. Saches 1857," and which was named Heterotella corbicula by Gray, exhibits a beaker-like inferiorly anchored tube, 10 cm. in height and 5 cm. broad in the superior part, while its terminal opening is closed by a transverse sieve-plate. The lateral wall of the tube consists of a very irregular network in which the beams form irregular, roundish meshes, and are composed of loosely united rod-like spicules varying in length up to 15 mm. No definite arrangement of the beams of the network in transverse and longitudinal bands is exhibited, nor is there any indication of externally projecting ridges.

While the long rod-like spicules, which are somewhat thickened and rough at both ends, merely exhibit in the middle four cruciately disposed lateral tubercles, as indications of the six-rayed type, numerous well-developed six-rayed spicules also occur, which are,

¹ Ann. and Mag. Nat. Hist., ser. 4, vol. i. p. 114, 1868.