

of the skin skeleton are said to be completely closed by a thin transparent membrane, and in the latter, groups of small "quadrifurcate hexradiate spicules" occasionally occur. In the interior of the soft body Bowerbank thought he could perceive numerous "gemmae" surrounded by a simple membrane.

In Marshall's research on the Hexactinellida, published in 1875,¹ there is a detailed account of the *Euplectella oweni*, Marshall and Herklots, from Japan, which had been already shortly described by Marshall and Herklots. This species is accurately compared with the Philippine *Euplectella aspergillum*, which Marshall had also the opportunity of studying in a young specimen, with as yet entirely unfused spicules.

While there is a great general resemblance in the forms and position of the spicules, as is particularly obvious in comparing *Euplectella oweni* with *Euplectella aspergillum*, there never occurs that fusion of the main spicular bands which occurs in *Euplectella aspergillum* when it becomes old, and which leads to the formation of the elegant lattice-like framework. While, moreover, *Euplectella aspergillum*, which is always much bent, presents an approximately round tube, continually increasing in diameter from the base to the free extremity, and is provided laterally with ridge-like, oblique, outwardly directed elevations, and at the extremity with a cuff, bounding the terminal sieve-plate, *Euplectella oweni* consists of a perfectly straight tube which is oval in transverse section, and without external ridges or a terminal circular cuff. From the broadest part of the tube, which is situated about the boundary between the inferior and middle third, the diameter diminishes very gradually upwards. The closure is effected by a sieve-plate which is somewhat strongly arched outwards.

Sir C. Wyville Thomson² published in 1877, a short description of a new species of *Euplectella* (*Euplectella suberea*, Wyville Thomson), of which three more or less injured specimens, figured in a woodcut (*loc. cit.* p. 29), were collected to the west of Gibraltar. It may be well here to repeat the words of the highly respected leader of the expedition:—"The fine species for which I propose the name *Euplectella suberea*, of which three specimens, all unfortunately more or less injured, were taken in the trawl, forms a hollow cylinder about 25 cm. in length by 5 cm. in diameter. The walls are composed, as in *Euplectella aspergillum*, of a fundamental, square meshed, siliceous network, bands of spicules running longitudinally from end to end of the sponge, and transverse bands intersecting these at right angles. The spicules are in some cases straight and smooth, frequently four projecting knobs ranged round the centre of the shaft of the spicule show that, in essential form, the spicule is six-rayed, and often one of the side rays is strongly developed and projects to a distance of half an inch or more from the surface of the sponge. The spicules are all free from one another, and those composing the bands can easily be teased asunder with a pair of needles. In this species, as in *Euplectella aspergillum*, the corners of the square meshes are filled up, a pale brown

¹ *Zeitschr. f. wiss. Zool.*, Bd. xxv. Suppl., p. 142.

² *The Atlantic*, vol. i. pp. 138-140.