

in the adjoining and more protected regions, where they occur in a perfectly regular arrangement. Even on the outer side of the beams of the sieve-plate I have frequently found them intact over large areas. On the borders of the parietal gaps, as well as on the entire inner surface of the sponge and the excurrent passages, they are entirely absent, nor have I found them in the parenchyma.

Among the many examples of this beautiful and interesting species which the Challenger Expedition collected from the same locality, namely, near the island of Zebu, at a depth of 100 fathoms, some young specimens, unfortunately much injured, of which two seemed bound together by an oblique tube-like anastomosis, deserve special mention. The larger of these two tubes, which stand almost parallel to one another at a distance of 2.5 cm., is bent in a hook-like manner, and just above the connecting bridge, on the side turned towards the other specimen, is somewhat flattened and partly involuted. Not including the basal tuft, it is 20 cm. long, and from 2.5 to 3 cm. broad. The distance between longitudinal and transverse spicular bundles is from 2 or 3 mm., the breadth of the tolerably regular parietal gaps is about 1 mm. The outer ridges and the cuff are well developed, and they attain a height of 2 or 3 mm. The terminal sieve-plate is remarkably highly arched. Somewhat above the middle there is an acutely angular division of the tube into two similar tubular branches. The one branch continues in the direction of the principal portion to the highly-arched terminal sieve-plate with an approximately equal diameter; the other bends obliquely to the side, becomes somewhat narrower, and is continued directly into the wall of the second shorter and narrower straight tube, of 10 cm. in length, and 1 to 5 cm. in transverse diameter. This extends for 2.5 cm. to the inferior funnel-like narrowed extremity, which runs out into a delicate basal tuft, while the upper very delicate and soft portion is about 6 cm. in length, and is provided with a terminal sieve-plate. This small specimen was unfortunately much damaged in its delicate upper part, yet it may still be clearly recognised that longitudinal bundles of fibres pass over directly from the larger *Euplectella* through the obliquely ascending bridge into the longitudinal strands of the smaller portion, and extend both upwards and downwards. Since the portion of the short tube which lies beneath the connecting bridge, and especially that part towards the larger tube, agrees thoroughly in the character of its wall with the side branch of the larger tube, it apparently represents a direct continuation of the latter; the upper portion, on the other hand, up to its superior sieve-plate, becomes gradually narrower in its meshes and enfeebled in all its parts, and is, moreover, manifestly younger than the under portion, so that I do not think we have here to deal with two independent specimens which stood close to one another, and which, at a subsequent period become united by a binding-tube, but am rather of opinion that originally only the larger existed. A portion of the upper half of its lateral wall was separated from the upper half in such a way that it hung down to the ground in an arch. This arch thereupon