to add to its consistency, present singularly elegant forms. One of the most complicated is a spicule with six very short rays, each terminated by a vase-shaped arrangement of curved and fringed siliceous plates.

All the specimens of *Euplectella aspergillum* which I have seen, with one exception—there may be others of which I am not aware—have had the spicules of the skeleton fused together into one continuous net-work, so that the fabric, although fragile, retains its form, and will bear some handling. An examination of a portion of the skeleton under the microscope shows, however, that it was originally composed of distinct spicules. Each spicule has a very fine central tube running through its axis, and all its branches have the like; and in the mature skeleton these central tubes remain, indicating the form and position of the original spicules, and showing that they are only imbedded in and bound together by an external and secondary siliceous cement. The exceptional specimen is one of those in the excellent Free Museum in Liverpool. In this case the fibres and spicules have remained distinct from one another, and consequently the skeleton, although the netted lid is complete and it has all the appearance of maturity, is quite flexible and soft. Whether this be a character common to young individuals, whether it be an abnormal condition of this single specimen owing to deficiency of silica, or some such cause, or whether the specimen ought to be regarded as the type of another species, I am not yet prepared to say. I have seen small specimens of the ordinary form with the spicules soldered together, apparently perfect, but short and without the lid, and I always supposed these to be the young; but from what we know of the intimate structure of the skeleton, it would seem probable enough that the spicules may remain separate for a time in early life during the expansion of the creature and the development of its form.

The fine species (Fig. 29) for which I propose the name *Eu-*