

fibrous bands, and (3) the lophiohexasters which lie near the outer surface, but yet underneath the dagger-like hypogastralia. This form perhaps belongs to the genus *Holascus*.

Genus 2. *Regadrella*, O. Schmidt.

1880. O. Schmidt, Die Spongien des Meerbusens von Mexiko, p. 61.

*Regadrella phœnix*, O. Schmidt (Pl. XIII. figs. 1-4).

Although *Regadrella phœnix*, which has been described by Oscar Schmidt, is in general characters closely allied to the genus *Euplectella*, remarkable differences occur which may well suffice for the establishment of the genus. We have here, as in the *Euplectella*, to deal with a tube whose walls are much perforated by round apertures, and whose transversely truncated superior extremity is covered by a watch-glass-shaped arched sieve-plate, and bordered by a cuff-like wreath of spicules. The basal tuft is entirely absent, and the skeletal framework consists not of longitudinal and transverse, but of oblique, irregularly interwoven strands of fibres, while the rosettes scattered in the parenchyma are essentially distinct from those of the various species of *Euplectella*. The inferior extremity of the tube has become converted into a compact and substantial cup by extensive fusion of the spicules. The cup is fixed by a knobby base on the stony substratum, while towards the upper end it passes quite gradually into a progressively looser spicular framework. After the death of the sponge the part of the skeleton which is not united by siliceous matter becomes separated from the rest of the body, but the basal part persists, and so admits of the occurrence observed by O. Schmidt, that several generations encapsule one within the other, the younger forms settling within the remnants of their predecessors.

Without entering upon a detailed description of all the individual forms of spicules, I will confine myself to noting the differences between some *Regadrella* spicules and the corresponding spicules of the genus *Euplectella*.

The spicules which project freely from the undulating curved margins of the terminal sieve-plate are hexacts, whose prolonged free distal ray is equipped with scaly or prong-like protuberances (Pl. XIII. fig. 2).

All the rosettes which are abundantly scattered in the parenchyma are distinguished from the corresponding rosettes of *Euplectella* by the fact that their slightly bent terminal rays, three or four of which spring from every short principal ray, do not run out to simple points, but become divided at their narrowed extremities into four transversely directed and cruciately disposed, hook-like, backwardly bent, fine prickles. These forms should thus be designated not oxyhexasters, but rather discohexasters. With regard to fig. 3 on Pl. XIII., which represents a rosette of this kind from *Regadrella*