

and this will lead to the overgrowth of those spicules which have become the "hispidating" spicules of the sponge; in the Tethyidæ the growth has been of a different character: the original Rhagon has increased from the centre radially, and in accordance the megascleres lie with their long axis in the same direction. Both arrangements are readily derivable from that which occurs in the simpler Tetillidæ, and is represented diagrammatically in Fig. 4, A. In this case the spicules are arranged both concentrically and radially; let the thin-walled vasiform *Epallax* arise from this in the manner described above, and the concentrically arranged spicules will become the chief or axial spicules of the skeleton, as in Fig. 4, B; if, on the other hand, the walls increase in thickness, as in *Tethya* and *Craniella*, then the radial spicules as in Fig. 4, C, form the main and indeed only megascleral skeleton. In the Tetillidæ we can trace the

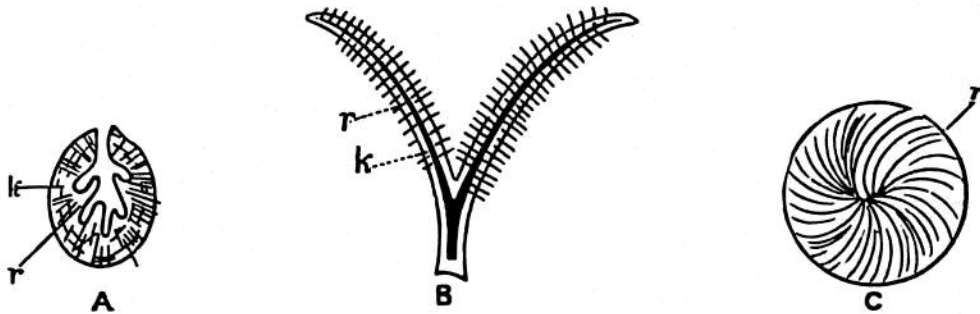


FIG. 4.—A, Primitive arrangement of spicules met with in *Tetilla*. B, arrangement in *Epallax*. C, *Tethya* and *Craniella*; k, concentrically, r, radially arranged spicules.

transition from the stage shown by A to that of C in Fig. 4, but in the Tethyidæ the earlier stages are lost or remain to be discovered, and only the final term is known to us.

In the Scolopidæ we meet with the palisade arrangement of the cortical oxeas that is already foreshadowed in *Placinastrælla*, the only Tetractinellid sponge in which it is so well expressed, though something similar is presented by the cortical oxeas of some of the Geodiidæ; this arrangement persists throughout the Suberitidæ, which probably originally branched off from some point near the root of the Scolopidæ.