Hexactinellida from the fundamental type, I will begin with those forms which, like *Bathydorus fimbriatus*, are only slightly removed from the original saccular form, and which by a simple elongation have assumed a tube-like outline. In a section through the lamelliform smooth wall of *Bathydorus fimbriatus*, such as is somewhat diagrammatically represented in Pl. LVIII. fig. 2, the only essential modification of the fundamental type is a peculiar folding of the chamber layer. This layer exhibits a series of closely disposed broad protrusions of approximately similar form and equal size, which

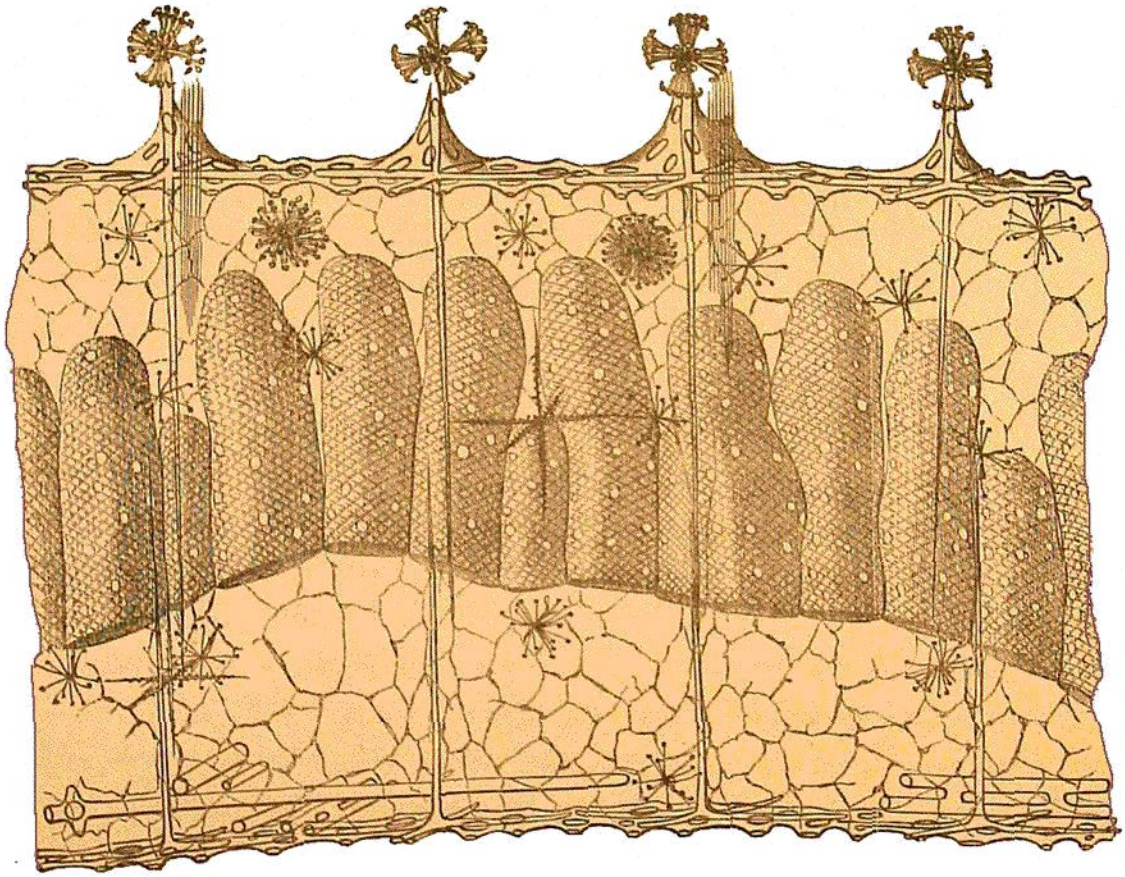

FIG. 1.—Section of the wall of *Walteria flemmingii*, n. gen. et sp.

raise the smooth external skin in such a way that diverticula, traversed and divided by trabeculæ, extend inwards from the subdermal lacunæ of the outer trabecular space. The lumina of the protrusions which open by a wide round aperture into the inner trabecular space are at first destitute of a trabecular framework.

In all the numerous Lyssacina, which, like *Acanthascus* (Pls. LVI.–LVII.), *Rossella* (Pl. LV.), &c., resemble a thick-walled beaker or cup, the folding of the chamber layer is continued by the formation of successive protrusions, so that branched efferent passages of roundish section are formed, between which corresponding complex incurrent passages penetrate inwards from the outer trabecular spaces. This development of a more or less richly branched system of afferent and efferent passages, which are, however, completely separated by the chamber layer, remains essentially unchanged, even with such