

chambers, while the outer trabecular framework either entirely fills the space between the chambers and the outer skin, or is perforated by the subdermal lacunæ and afferent canals.

The name of the genus *Tægeria* is formed from the family name of my wife, "Tæger."

Genus 2. *Walteria*, n. gen.

*Walteria flemmingii*, n. sp. (Pl. IX.; Pl. X.; Pl. XI. figs. 4-6).

The fragment of a hitherto unknown Hexactinellid, which is very faithfully represented in its natural size on Pl. IX., was collected in the Pacific to the north of the Kermadec Islands (Station 170A, lat. 29° 45' S., long. 178° 11' W.), from a depth of 630 fathoms, on volcanic mud. The sponge appears to be broken across the middle, and to have had about double the length of the fragment preserved, which is 15 cm. long by 8 cm. broad, becoming narrowed towards its extremity into a conical funnel-shaped tube only 6 mm. in width. Since the terminal portion is also broken off at this place it is impossible to determine whether we have before us the inferior extremity by which the sponge was fixed or the free upper end.

The thin wall of the tube consists of a framework with strands of varied strength, seldom more than 1 mm. in thickness, and surrounding polygonal meshes of very diverse size and irregular form, which may attain the size of 1 cm. It is only towards the narrowed funnel-like end that the strands arrange themselves in a system of somewhat converging longitudinal and transverse bands of fibres, which come to lie closer and closer to one another, forming quadrangular meshes, which are only crossed by small secondary beams. Here and there in the expanded main portion of the sponge longitudinal and transverse beams may also be recognised. Most of the beams in the lattice-like network are not smooth, but are beset with small knobs which project externally, and which occur sometimes isolated, sometimes in grouped arrangement. Even on examination with the naked eye, but more obviously by employing a lens or the microscope, the network strands may be seen to be supported by a firmly united siliceous framework, which is covered by a distinct and strongly-developed soft skin. The latter becomes elevated into numerous small short tubes which project obliquely or at right angles to the surface, and are each tenanted by the hydranth of a commensal hydroid polype. While the hydrophyton extends into the deeper layer of the rind, the shortly-stalked or sessile hydranths project transversely outwards (Pl. XI. fig. 4). There can be no doubt that the hydranth, by its simple presence and especially by the continual stimulus exercised on the surrounding sponge substance by its expansion and contraction, has caused the formation of the projecting tubes. I have not observed anything of the nature of a perisarc. The hydroids seem to be entirely naked, and lie