

*Pheronema grayi*, Leidy, *Holtenia carpenteri*, Wyville Thomson, and other forms in a single family—the Pheronemadæ, which might be characterised by the “ovate globular or purse-like body, with a large internal cavity and outer walls formed of hexradiate spicules placed side by side, producing a tessellated surface formed of stars.” For *Pheronema grayi*, Gray moreover, proposed the new generic name *Callisphaera*, and for *Holtenia saccus*, O. Schmidt, the generic name *Vazella*.

A somewhat different diagnosis was given by Gray in 1872<sup>1</sup> for his family Pheronemadæ in the words:—“Sponge oblong; outer surface formed of hexradiate spicules, lower surface with elongate filiform spicules ending in three recurved lobes.” In this family he distinguished (a) those forms with “anchoring filaments arising in a circle of tufts around the base of the sponge,” such as *Pheronema*, Leidy and Kent=*Holtenia*, Thomson, and (b) those with anchoring spicules arising from all parts of the sponge, such as *Callisphaera*=*Pheronema grayi*, Kent, and *Vazella*=*Holtenia*, O. Schmidt.

Under the designation of *Labaria hemisphærica*, Gray described, in 1873,<sup>2</sup> a sponge from Cebu, one of the Philippine Islands, sent through A. B. Meyer to the British Museum, with the following brief diagnosis:—“It is hemispherical, about 2 inches in diameter, and rather more than 1 inch high, with a rather smooth outer surface, and a rather deep regular concavity on the upper surface, which seems formed of interlacing spicules, leaving considerable spaces between them. The outer surface and its margin are scattered with distant, but rather regularly placed cylindrical perforations, from the centre of which are emitted tufts of elongated filiform spicules, diverging in all directions from the surface of the sponge. The middle of the underside deeply concave, with a well-defined edge, from which is emitted a very large tuft of very numerous crowded spicules, forming a kind of brush, each filament when perfect ending in three short recurved spines.”

A detailed description of the same specimen was afterwards given by Carter<sup>3</sup> in which he also described the form and distribution of the various siliceous spicules, while the insignificant points of difference between these and the corresponding spicules of the genera *Hyalonema*, *Holtenia*, and *Pheronema* were pointed out.

In his great work on the Hexactinellida which Carter published in 1873,<sup>4</sup> and which contains a particularly detailed account of the form of individual siliceous spicules, *Pheronema annæ*, Leidy, *Pheronema grayi*, Kent, *Holtenia carpenteri*, Wyville Thomson (as well as *Meyerina claviformis*, Gray, which is further referred to below) are united into one group, which is characterised as follows:—“Species more or less globular, excavated, provided with anchoring spicules, and characterised by the birotulate flesh spicule above

<sup>1</sup> *Ann. and Mag. Nat. Hist.*, ser. 4, vol. ix. p. 450.

<sup>2</sup> *Ann. and Mag. Nat. Hist.*, ser. 5, vol. xi. p. 235.

<sup>3</sup> *Ann. and Mag. Nat. Hist.*, ser. 4, vol. xi. pp. 275-288.

<sup>4</sup> *Ann. and Mag. Nat. Hist.*, ser. 4, vol. xii. pp. 349-472.