dermal skeleton. No marginalia are preserved. In the thick beard-like shreds which here and there still project from the base, numerous anchors occur, of the same form as those of *Poliopogon amadou*, with a shaft which may measure 10 cm. or more, while the slightly forward-curved ends of the two transverse teeth are separated from one another by about 0·5 mm. (Pl. XLVIII. fig. 14, *a*). The pointed upper end of the anchor shaft, which is buried in the sponge body, frequently bears several short, scattered, downward-directed, lateral barbs (Pl. XLVIII. fig. 14, *b*). In Pl. XLVIII. fig. 13, I have figured a remarkable abnormal form of anchor structure.

Subfamily 2. SEMPERELLINÆ, F. E. Schulze.

Genus *Semperella*, Gray (Pls. LI., LII.).

1868. Semper, Verhandl. der Würzb. Gesellsch., vol. i. p. 29 (*Hyalonema schultzei*).
1868. Gray, Ann. and Mag. Nat. Hist., vol. ii. p. 373 (*Semperella*).
1868. Herklots and Marshall, Arch. Neerland. d. sc. nat., iii. p. 435 (*Hyalothauma ludekingii*).
1872. Carter, Ann. and Mag. Nat. Hist., vol. x. p. 110.
1872. Gray, Ann. and Mag. Nat. Hist., vol. x. p. 134.
1872. Gray, Ann. and Mag. Nat. Hist., vol. x. p. 76 (*Meyerina claviformis*).
1873. Carter, Ann. and Mag. Nat. Hist., vol. xi. p. 275.
1873. Carter, Ann. and Mag. Nat. Hist., vol. xii. p. 349.
1874. Gray, Ann. and Mag. Nat. Hist., vol. xiii. p. 284.
1875. Carter, Ann. and Mag. Nat. Hist., vol. xvi. p. 200.
1875. Marshall, Zeitschr. f. wiss. Zool., Suppl., Bd. xxv.
1876. Marshall, Zeitschr. f. wiss. Zool., Bd. xxvii.
1877. Miers, Journ. Linn. Soc. Lond. (Zool.), vol. xiii. p. 506.

History.—In 1868 Semper described under the title *Hyalonema schultzei* a Philippine sponge, resembling in size and form *Euplectella aspergillum*.[1] Semper's preliminary note was to the following effect:—"*Hyalonema Schultzei*, S. resembles in form and size *Euplectella aspergillum*. The root-fibres, which are either smooth or serrate, divide towards the sponge body into single bundles. They traverse the latter both internally and superficially, becoming connected with the main framework in the same way as do the long root fibres of *Euplectella*. Cruciate spicules of many kinds are united with these long strands of fibres, forming sometimes a very dense and sometimes a loose network, which is penetrated in all directions by the large canals of the sponge. The comparatively wide excurrent appertures occur irregularly over the whole sponge, and are frequently associated with tufts of fine, almost silk-like fibres. On several regions of the somewhat injured surface, a fine network with wide rectangular meshes may be observed. The whole sponge framework is, as in all true *Hyalonemata*, composed of free fibres or

[1] *Verhandl. phys.-med. Gesellsch. Würzburg*, vol. i. p. 29, 1868.