manner. Anterior surface obscurely fibro-reticulate, sparsely furnished with subtubular pores. Zoœcia on the front of the branches, immersed or very slightly prominent, those of the outer sides of the branches tubular, slightly expanded towards the orifice, which is more or less elliptical, with an entire border often much produced on one side; dorsal surface finely sulcate with minute pores in the sulci. Oœcia dorsal, subglobular or gibbous, the surface reticulate or coarsely punctured. Aperture tubular, lateral (from which a very slender rib stretches across to the opposite side, Hincks). Diameter of branches 0.5 to 0.6 mm., and of orifice about 0.1 mm.

Habitat.—Station 320, lat. 37° 17′ S., long. 53° 52′ W., 600 fathoms, green sand. [Arctic Seas, Lovén; coasts of Scandinavia, Pantoppidan, Sars, Macandrew; Shetland, Barlee; Hebrides, Norman; Nova Zembla; Greenland, Lütken; St. Georges Banks, Smitt and Harger.]

§§ b. Occia anterior, either wholly or in part; dorsal surface granular or finely striate.

(3) Hornera violacea, Sars.

Hornera violacea (forma violacea), Smitt, loc. cit., p. 404, Tab. vi. fig. 6-9; Sars, Geol. og zool. Jagtt. Reise Trondhj., 1862, Nyt Mag. Nat.-Vid., vol. xii. p. 282; Busk, Brit. Mus. Cat., pt. iii. p. 18, pl. xviii. figs. 1-4; Norman, Shetl. Dredg., Rep. Brit. Assoc., 1867, p. 310; Hincks, Brit. Mar. Polyz., i, p. 469, pl. lxvii. figs. 6-8, pl. lxii. figs. 2, 3,

Pustulopora orcadensis, Bk., Quart. Journ. Micr. Sci., 1860, vol. viii. p. 214, pl. xxxix. figs. 1, 2.

Character.—Zoarium more or less of a violet colour, branched, straggling; branches short, truncate, irregularly dichotomous. Zoœcia very irregularly disposed, sometimes crowded into small fasciculi, usually elongated; surface punctate (not reticulate); dorsal surface granular, or very finely striated with minute pores, often a rib-like elevation down the centre of the branch. Oœcia elongated, situated in the axils of the branches, usually more towards the dorsal aspect; surface smooth, finely punctate, with a thin median costa; orifice bilabiate near the top. Diameter of branches 0.4 to 0.7 mm., and of orifice 0.12 mm.

Habitat.—Station 151, off Heard Island, 75 fathoms, volcanic mud. [Arctic and Northern Seas, generally distributed; Shetland.]

§ \$\beta\$. fenestrata (subgenus Retihornera).—Branches sub-parallel, connected by transverse tubules, so as to form an expanded frond with quadrangular fenestræ.

Retihornera (pars), Kirchenpauer, Cat. iv. of the Museum Godeffroy, 1869; Busk, Brit. Mus. Cat., pt. iii. p. 19.