

Spicules.—I. Megascleres. 1. *Somal oxea*, 3.57 by 0.058 mm. 2. *Cortical oxea*. 3. *Orthotriæne*, rhabdome 3.213 by 0.055 mm., cladi 0.36 mm. long. 4. *Protriæne*, rhabdome 3.57 mm. long, cladi 0.1 mm., chord 0.097 mm. long. 5. *Anatriæne*, rhabdome 4.81 mm. long, cladi 0.084 mm., chord 0.071 mm. long.

II. Microscleres. 6. *Sterraster*, spherical, 0.065 mm. in diameter. 7. *Somal pycnaster*, actines short, cylindrical, truncate, 0.01 mm. in diameter. 8. *Subcortical spheraster*, centrum fairly large, actines numerous, conical, minutely spined near the end, 0.032 mm. in diameter. 9. *Choanosomal oxyaster*, actines not numerous, conical, 0.04 mm. in diameter.

Colour.—Cream-yellow in the dried state.

Habitat.—The more or less cup-shaped specimen (pl. vii. figs. 1, 2, Bowerbank, vol. iii., *op. cit.*) is from the island of Fulah and Unst, in "deep water"; for the oval specimen (pl. vii. figs. 3, 4, Bowerbank, vol. iii., *op. cit.*) no locality is cited.

Remarks.—The measurements of spicules are taken from the original type figured by Bowerbank from the island of Fulah and Unst. It differs in some respects from the second (oval) specimen figured by Bowerbank, particularly in the absence of spherasters. The material at my disposal is, however, insufficient for the discussion of their identity.

In the type specimen a few small, apparently uniporal, oscular chones occur scattered in an ill-defined group in the interior of the cup.

Section 1. *Pantæosa*.

Species possessing both somal and cortical oxeas, and anatriænes or protriænes, or both, in addition to orthotriænes or dichotriænes.

Cydonium cooksoni, n. sp.

Sponge (?).—Cortex 0.415 mm. in thickness, ectochrote very thin. Pores in sieves overlying incurrent chones. Oscules (?). Surface hispidated by cortical oxeas and somal oxeas and protriænes, the last two protruded for a distance of 1.8 mm.

Spicules.—I. Megascleres. 1. *Somal oxea*, 1.83 by 0.041 mm. 2. *Cortical oxea*, 0.129 by 0.004 mm. 3. *Orthotriæne*, rhabdome 1.6 by 0.0645 mm., cladi 0.24 mm. long. 4. *Protriæne*, rhabdome fusiform, 2.38 by 0.075 mm. close to the cladal origin, and 0.0129 mm. where thickest.

II. Microscleres. 5. *Sterraster*, spherical, depressed, 0.0774 by 0.066 mm. 6. *Somal spheraster*, minute, centrum comparatively large, actines short, cylindrical, with rounded ends, 0.001 to 0.006 mm. in diameter. 7. *Subcortical spheraster*, centrum large, pro-