

current chones similar, both provided with sieve-pores scattered over both inner and outer surfaces but absent from the margin of the cup. Cortex 0·8 mm. in thickness, composed almost entirely of the sterrastral layer.

*Spicules*.—I. Megascleres. 1. *Somal oxea*, fusiform, usually curved, sometimes irregularly, 2·7 by 0·032 mm. 2. *Cortical oxea*, small, fusiform. 3. *Orthotriæne*, rhabdome conical, 2·4 to 2·6 by 0·078 mm., cladi from 0·23 to 0·38 mm. long. 4. *Anatriæne*, rhabdome cylindrical, long, 0·018 mm. in diameter, cladi 0·1 mm., chord 0·0839 mm., sagitta 0·11 mm. long. This spicule is more than usually abundant.

II. Microscleres. 5. *Sterraster*, spherical or ellipsoidal, depressed, 0·0775 mm. in diameter, or 0·09 by 0·0775 by 0·058 mm. 6. *Somal spheraster*, minute, centrum forming the greater part of the spicule, the actines occurring as short irregular prominences, diameter 0·005 mm. 7. *Subcortical spheraster*, centrum large, actines conical, sharply pointed, numerous, diameter 0·02 mm. 8. *Choanosomal oxyaster*, centrum small or absent, actines not numerous, conical, smooth, 0·032 mm. in diameter.

*Colour*.—Cream-white. Size, 250 mm. by 334 mm. across the mouth of the cup.

*Habitat*.—Japan.

*Remarks*.—In general form this sponge much resembles *Synops neptuni* (p. 227), from which it is distinguished not only by the character of the oscules, but by the greater variety and larger size of its spicules. The sponges which it most nearly approaches in the characters of its spicules are *Geodia nodastrella*, Carter, and *Geodia carteri*; its general form distinguishes it from both, and from the latter it is also distinguished by the absence of a well-developed ectochrote.

*Cydonium pleiades*, n. sp.

*Sponge*.—(?).

*Spicules*.—I. Megascleres. 1. *Somal oxea*, fusiform, 3·4 by 0·06 mm. 2. *Cortical oxea*, about 0·25 by 0·0064 mm. 3. *Dichotriæne*, rhabdome 3·34 by 0·078 mm., cladi bent backwards at the point of first dichotomisation, subsequently dichotomising once, twice, or three times; in a thrice dichotomising example the protocladi measured 0·258 mm., deuterocladi 0·045 mm., tritocladi 0·026 mm. in length; in one dichotomising four times the protocladi measured 0·27 mm., deuterocladi 0·064 mm., tritocladi 0·064 mm., tetartocladi 0·0387 mm. in length. 4. *Anatriæne*, rhabdome 0·032 mm. in diameter, cladi 0·148 mm., chord 0·161 mm., sagitta 0·142 mm. in length.

II. Microscleres. 5. *Sterraster*, spherical, depressed, 0·09 by 0·071 mm. 6. *Somal spheraster*, minute, centrum comparatively large, actines short, cylindrical, truncate, 0·006 mm. in diameter. 7. *Subcortical spheraster*, centrum large, actines conical, almost sharply pointed but rounded off at the ends, 0·016 mm. in diameter. 8. *Choanosomal*