

The resemblance between this species and *Caminus vulcani*, O. S., is very close, the latter, however, is distinguished by the presence of oxyasters, by the greater length of its oxeate spicules (0·076 by 0·016 mm.), and by the larger size of its sterraster (0·1 mm. in diameter). In other respects the spiculation of both is quite similar, in both the small globules are present, as also are the orthotriænes; these latter I have observed, not only in preparations made by myself from a fragment of the typical sponge preserved in the British Museum, but also in Oscar Schmidt's own slides of mounted spicules presented by him to the British Museum. The asters of *Caminus vulcani* are interesting, as they afford another illustration of the passage from an aster with few actines to an oxeate spicule with a central tylote enlargement; the actines are slender and conical, sharply pointed, and from 0·035 to 0·039 mm. long. The globule is the same size as in *Caminus sphæroconia*; it is frequently produced into a little rounded process on one side, remarkably similar to the rudimentary hypha proceeding from the germinating conidium of a *Penicillium*. It evidently indicates a tendency to return to the astral form from which we must regard it as derived.

Subfamily II. GEODINA.

The sterraster is spherical or ellipsoidal; the somal microsclere is a polyactinose aster. In addition to orthotriænes or dichotriænes, prottriænes and anatriænes are frequently present.

Genus 5. *Cydonium*, Müller.

The incurrent chones are furnished with cribriporal roofs; the oscules are the uniporal, or more usually cribriporal, openings of excurrent chones which resemble the incurrent chones, but are usually collected in special areas without definite margins.

Cydonium hirsutus, Sollas (Pl. XXI. figs. 30-42).

Cydonium hirsutus, Sollas, Prelim. Account, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 197, 1886.

Sponge (Pl. XXI. figs. 30, 31).—Irregular in form, growing into lobes and long, irregular, finger-like processes; bearing in places shallow oval depressions, the floors of which are irregularly pitted, but not perforate. The poriferous roofs of the chones are thickly distributed in some places, absent in others. Surface in places highly hispid, long cylindrical spicules projecting 8 or 9 mm. beyond it; in other places bare. The cortex is thick; below the outer epithelium with its associated minute spherasters is a thin layer of collenchyma, in which the cladomes of the dichotriænes occur, their cladi spreading parallel to the surface, and supporting the poriferous roofs of the chones.