

Skeleton.—A reticulation of well developed horny fibre, cored and echinated by subtylostylote spicules of one kind only.

Spicules.—(a) *Megasclera*; (1) smooth, fusiform subtylostyli, sharply pointed and constricted before the head, size about 0·1 by 0·0048 mm., in the fibre and echinating it and scattered. (2) Very long, thin, hair-like spicules, in which it is extremely difficult to make out the nature of the ends, (?) cylindrical, subtylostylote sometimes; length about 0·17 mm.; scattered. (b) *Microsclera*; at first we thought that this species was sharply marked off from *Echinoclathria carteri*, nobis, by the absence of microsclera, but since then we have seen a very few, faintly discernible, hair-like isochelæ, about 0·0126 mm. long, apparently on the verge of disappearance.

This species we have been enabled to identify through our examination of Mr. Carter's dried types in the British Museum.¹ His description (*loc. cit.*), seems to us to be misleading; it is possible that his account of the spiculation was taken from some other specimen than the two which we have examined (*viz.*, his numbers 554 and 208 *bis*).

The species comes extremely close to our *Echinoclathria carteri*, but for the sake of convenience we separate them; they are distinguished by the fact that *Echinoclathria carteri* possesses abundant, distinct isochelæ,² and well-developed, long, slender subtylostylote spicules (scattered); the proportions of the spicules also differ in the two and the *typical* external forms of the two species are very distinct (*cf.* figs. 3, 4 and 5 on Pl. XXXI.). That the two species are connected by a series of intermediate forms there can be little doubt, but for the sake of convenience we at present keep them distinct.

The Challenger obtained six specimens of *Echinoclathria favus*, all of which are based upon Pecten shells; the inhabitants of the shells were evidently living when the sponges were dredged. This is a very interesting fact, for possibly we have here a case of commensalism. It is difficult to understand how a Pecten can swim about (in the manner stated of species of this genus by our conchological authorities) with a sponge of the size represented in Pl. XXXI. figs. 4, 5, attached to it, but the animal is still in the shell and in good condition; possibly the streams of water engendered by the sponge, bringing constant supplies of food, render motion on the part of the Pecten unnecessary.

Locality.—Station 162, April 2, 1874; lat. 39° 10' 30" S., long. 146° 37' 0" E.; off Monceur Island, Bass Strait; depth, 38 fathoms; bottom, sand and shells. Six specimens.

¹ Mr. Carter, *loc. cit.*, says—"There are several specimens of it in the British Museum, mostly under four inches in their greatest diameter, of which Nos. 554 and 555, each registered 59. 10. 7. 106, may be mentioned as massive forms, and No. "208 *bis*" registered 37. 5. 13. 36. &c., as more or less digitate forms."

² Mr. Carter mentions no isochelæ in *Echinoclathria favus*, neither have we been able to find them in his dried types, but such delicate microsclera may be very readily overlooked in examining dried specimens.