

Iophon chelifer, Ridley and Dendy (Pl. XVI. fig. 3 ; Pl. XVII. figs. 1, 3, 8).

1886. *Iophon chelifer*, Ridley and Dendy, Ann. and Mag. Nat. Hist., ser. 5, vol. xviii. p. 349.

Sponge (Pl. XVI. fig. 3) amorphous,¹ massive, honeycombed. *Colour* in spirit light brown to black. *Texture* soft, crumbling. *Surface* smooth.

Skeleton.—Composed of an irregular, loose reticulation of spined stylote spicules ; the meshes of the network are more or less rectangular, so that there are two main lines of spicules distinguishable, though only roughly, one of which is approximately perpendicular to the surface.

Spicules.—(a) *Megasclera*; (1) spined styli (Pl. XVII. fig. 1, a, b), measuring 0·36 to 0·42 by 0·016 to 0·02 mm.; (2) there are also present a few tylote spicules (Pl. XVII. fig. 1, c), apparently confined to the surface, size 0·25 to 0·32 by 0·01 mm.; these spicules have the shaft smooth and the knobbed extremities minutely spined. (b) *Microsclera*; very abundant, of two kinds ; (1) anisochelæ (Pl. XVII. fig. 8), from 0·019 to 0·03 mm. long ; (2) bipocilli (Pl. XVII. fig. 3), large (0·019 mm. long) and of very peculiar form ; shaft narrow and strongly bent, small end clawed, with two prongs (whence the specific name), large end bearing two, three, or (very rarely) four expanded flukes, which together form a hollow cup. These spicules occur lining the canals ; the large end is embedded in the wall of the canal, and the small, clawed end projects freely into its lumen.² They also occur scattered abundantly through the soft tissues (perhaps owing to displacement?). This spicule is the most interesting feature about the species ; it throws considerable light on the relations of the more minute bipocillate spicules of other sponges. We are inclined to regard it as a much modified anisochela ; its variability in form (*i.e.*, in the number of flukes forming the larger end of the spicule) is also noteworthy.

Three specimens of this interesting species are present, two are fairly large, but broken into fragments, the other is small, and occurs encrusting a branched Polyzoon. The latter is in all probability a young form, and differs in several minor respects from the larger specimens ; in it the anisochelæ are mainly arranged in rosettes, with the small ends in the centre, they are very abundant, while, on the other hand, the bipocillate spicules are very few and apparently imperfectly developed. The species differs very decidedly from all described forms in the large size and also in the degree of

¹ Exact form uncertain, specimen fragmentary.

² This arrangement would seem to be connected with the protection of the walls of the canals, probably from animal intruders, rendering the spicules truly defensive, a term which cannot be applied to all the spicules thus named by Bowerbank. The cases in which a spicule may reasonably be assumed to fulfil this purpose are very few, that of the diancistra or "trenchant bihamates" (see Bk., Mon. Brit. Spong., vol. i. p. 34) being perhaps the best established case hitherto recorded. Cf. also the sigmata in *Esperella murrayi*, nobis.