

spines, of which, however, the upper one is much the stoutest; lengths to that of an arm-joint, 1·8, 1·6, 1·5, 1·5, 1·5 : 1·2, or 2·2, 1·6, 1·5, 1·3, 1·3, 1·3 : 1·2. Tentacle scales flat, pointed, and rather small. Colour in alcohol, pale brown.

The species stands near the typical *Ophiacantha setosa* in respect to form of disk and length of arm; but it differs from this and most others of the genus in having naked radial shields and side arm plates which do not project to give a knotted look to the arm.

Station 33.—April 4, 1873; off Bermudas; 435 fathoms; mud. Two specimens from the "Blake" expedition, dredged in 101 fathoms by A. Agassiz, showed no important variations. The disk-grains were larger and more numerous.

*Ophiacantha cuspidata*, Lym. (Pl. XV. figs. 9, 10; Pl. XLI. figs. 12–14).

*Ophiacantha cuspidata*, Lym., Bull. Mus. Comp. Zool., vol. v., part 7, p. 143, pl. x. figs. 248–250, 1878.

Disk beset with thorny stumps; eight rather long, stout, and feebly thorny arm spines; about eleven long slender mouth papillæ.

(Type specimen from Station 344.) Diameter of disk 9 mm. Length of arm 63 mm. Width of arm without spines 3 mm. Ten or sometimes eleven long, flat, rather slender and irregular mouth papillæ, of which the outer one has often a spatula shape. Teeth long, spearhead-shaped. Mouth shields small, long pentagonal, with a wide obtuse angle within; length to breadth, 1 : 1. Side mouth shields small, narrow and crowded, meeting within. Under arm plates wider without than within, where they touch the next plate; bounded without by a rounded angle or a somewhat deep curve, within by a more gentle curve, and on the lateral sides, opposite tentacle scales, by re-entering curves. The second plate is narrower within, and has a wavy outer edge. Upper arm-plates fan shaped, with an angle inwards; the lateral corners are sharp, and the lateral sides slightly re-enteringly curved. Side arm plates moderately prominent, meeting narrowly above, but not below at base of arm. Disk moderately thick, not puffed, closely set with stout little stumps, each bearing a crown of five or six minute thorns. Radial shields and disk scales hidden by skin and the thorny stumps, except that the position of each radial shield is usually marked by a shallow furrow. Eight stout, long, cylindrical arm spines, tapering to a blunt point and set with fine thorns; lengths to that of an arm joint, 3·6, 5, 3, 2, 2, 2, 1·8, 1·4 : 1. On first pore two tentacle scales; on the rest a single large pointed scale. Colour in alcohol, dark straw.

A young specimen with a disk of only 1·5 mm. had an arm of 10 mm. The disk armature consisted of little crochets with two or three prongs; the arm joints were of course more constricted, and the upper and under arm plates were widely separated; there were four or five arm spines, whereof the first or second was much the longest; to each