

and still on the jaw plate, are three spiniform tooth papillæ. Then, from apex of mouth angle, there radiate, on each side, two rows of long flattened mouth papillæ, which completely hide the underlying parts; each row has five or six papillæ, of which the innermost one is spiniform, resembling a tooth papilla; those beyond, more or less spatula shaped, grow progressively larger and wider, until the outermost has almost a fan shape; all incline more or less downward and outward, so that they overlap, tile fashion. On cutting away the mouth papillæ, a small mouth shield, of an irregular, short diamond shape, may be seen, together with small triangular side mouth shields, which nearly meet within. Length of mouth shield to breadth, $\cdot 7 : \cdot 7$. The jaws are long, narrow, and slender, with very large sockets at their base for the second pair of mouth tentacles. The first under arm plate is minute, triangular, and difficult to distinguish; the second very narrow, closely soldered with surrounding parts, and with deep re-entering curves on the lateral sides; the fourth plate is four sided, about as broad as long, much wider without than within, and with deep re-entering curves on the lateral sides; length to breadth, $\cdot 6 : \cdot 7$. Side arm plates separated below, meeting narrowly above, not swollen, but clean cut and flaring outward. Upper arm plates twice and a half as broad as long, shaped like segments of a circle, with a clean curve outward; near tip of arm nearly as long as wide, and form a pointed curve, while the side arm plates are but slightly flaring and meet above on a line as long as the upper plate. The disk was much torn (as is usually the case,) but was evidently covered above and below with fine scales, about four in the length of 1 mm., whereof many bore minute, peg-like spines. Eleven arm spines, increasing rapidly in length from the first to the ninth, then diminishing; the upper ones are slender, sharp, and little flattened; the lower ones are broad, flat, sharp, and shaped like a bronze sword; lengths to that of an under arm plate, $\cdot 2, \cdot 3, \cdot 3, \cdot 3, \cdot 5, \cdot 7, \cdot 8, 1, 1\cdot 2, \cdot 7, \cdot 7 : \cdot 7$. The basal under arm plates, as far as the fifth or sixth, bear on each lateral side three long, flat, spatula-like tentacle scales, which project over the pore; for some distance beyond there are but two such scales, while a third, trowel-shaped, stands on the edge of the side arm plate. One-third out on the arm there remains only the large trowel-shaped scale. Colour in alcohol, pale grey.

Station, off Tristan d'Acunha; 1000 fathoms.

The peculiar twisting upward of the arms and disk of *Ophiomyces* is explained by the absence of radial shields, a want not yet observed in any other genus. It seems, then, that one function of radial shields is to keep the disk in shape, somewhat like the action of the sticks of an umbrella.

Species of *Ophiomyces* not herein described.

Ophiomyces mirabilis, Lym., Bull. Mus. Comp. Zool., vol. i., part 10, p. 343, 1869.
Florida; 237 to 306 fathoms.