

to a fine point. It seems intended to stiffen the polypidom, but it does not extend the whole length of the stalk, for before it reaches either end, the point is bound down and bent backwards like a shepherd's crook. It consists, according to Sir E. Home, of phosphate and carbonate of lime, making thus a near approach to the bone of vertebrate animals. *Lect. Comp. Anat. i. p. 59.*

The papillæ on the back of the rachis, and between the pinnæ, are disposed in close rows, and do not differ from the polype cells except in size. The latter are placed along the upper margin of a flattened fin; they are tubular, and have the aperture armed with eight spinous points, which are moveable, and contract and expand at the will of the animated inmates. These are fleshy, white, provided with eight rather long retractile tentacula beautifully ciliated on the inner aspect with two series of short processes, and strengthened moreover with crystalline spicula, there being a row of these up the stalk, and a series of lesser ones to the lateral ciliæ. The mouth, in the centre of the tentacula, is somewhat angular, bounded by a white ligament, a process from which encircles the base of each tentaculum, which thus seems to issue from an aperture. The ova lie between the membranes of the pinnæ; they are globular, of a yellowish colour, and by a little pressure can be made to pass through the mouth.

Bohadsch says that the Pennatulæ swim by means of their pinnæ which they use in the same manner that fishes do their fins. Ellis says it "is an animal that swims freely about in the sea," "many of them having a muscular motion as they swim along;" and in another place he tells us that these motions are effected by means of the pinnules or feather-like fins,—"these are evidently designed by nature to move the animal backward or forward in the sea, consequently to do the office of fins."—*Phil. Trans. abridg. xii. 42.* Pallas adopted, with some reservation, † the opinion of Bohadsch; but Bosc, in an effort to be original, fancied that these remarkable zoo-phytes lay during the winter at the bottom, concealed among seaweed and in the crevices of rocks, while in summer they often swam at the surface! Cuvier tells us that they have the power of moving by the contractions of the fleshy part of the polypidom, and also by the combined action of its polypes; and, to adopt the words of Dr Grant, "a more singular and beautiful spectacle could scarcely be conceived, than that of a deep purple Pen. phosphorea, with all its delicate transparent polypi expanded and emitting their usual brilliant phosphorescent light, sailing through the still and dark abyss by the