are in part ornamented with fine regular, rounded, and not crowded granulations, while in others the raised granulations become quite irregular in outline and often confluent. The larger plates have each a more or less prominent umbo, which may be central or excentric and which together give various angular outlines to different portions of the theca; there is usually a very large umbo between the anus and the base. More or less wide, raised ridges usually connect the umbones and many finer ridges run from them over the plate, branch, cross the sutures and form some very fine reticulations having rounded, depressed pits between them.

Observations. This species differs from M. barrandii in its much smaller size, the excentric position of the anus, the outgrowth of the theca to form a neck under the sigma, its conical base, its prominent umbones and varied angular outlines. Mr Percy E. Raymond writes me that the food grooves in the type specimens of M. barrandii are not so much elevated in proportion to the size of the theca as in this Valcour form.

These specimens are so well preserved that it seems proper to make their description still more complete. Specimen A, which has been chosen as the type, still bears two rings of the stem and shows it to have had a marked and permanent bend toward the posterior side. Another specimen has six rings of the stem still attached; these are circular, measure 1.2 mm across next to the theca and uniformly taper down to .9 mm without alternations in size. The outer surface of the joints is only gently convex and each joint is very faintly and closely ribbed across its edge; there are about six rings to the millimeter; here also a rather abrupt bend toward the posterior side occurs next the theca and it is rather difficult to distinguish the sutures between the first two or three rings; the lumen is round and about half the diameter of the ring. The stem appears to have been short and used perhaps as an anchor but not for complete support. The theca probably rested, in part at least, on the plates to the posterior of the proximal ring. This position would place the mouth at the summit of the theca and bring the arms into a horizontal plane and a similar external environment. Figures 4, 6 and 7, plate 1, show three specimens oriented as if supported by