

its oral end by separation of weathered cleavage planes of the calcite. In spite of the losses it has received it still appears to be an interradial marginal of this species but belonging to another specimen.

A search for ambulacrals was made along the grooves left between the adambulacrals in the older portion of the arms. The weathering of the material filling these grooves had left a fine residual sand which could be easily removed. The groove of arm I was excavated to considerable depth (compare figures 1 and 3 of plate I), but no trace of any plates lying between the adambulacrals could be discovered.

That the arms had no true stelleroid ambulacrals and also no ossicles on their aboral surfaces is unmistakably suggested by two cross sections of the arms shown in plate II. Figure 5 is of ray V at the aboral surfaces of the second arm marginals. The rest of the arm had been here lost and the blackened carbonized bed on which the arm rested could be easily removed. The excavation was continued below the very definite line between the blackened bed and the lighter colored limestone of the matrix. After cutting down to a greater depth than that of the marginals themselves a bit of cover glass was placed on edge and allowed to rest against the faces of the marginals. The transparent liquid gum was then gradually filled in back of the glass and the photomicrograph taken from a position as near the horizontal as the specimen could be placed before the objective of the microscope. The blackened porous bed is seen to be attached to the outer edge of the marginals and to strike diagonally across the interradial spaces both to the right and to the left (interradii 4 and 5). No trace of any aboral plates is here revealed and ambulacrals are also wanting.

Figure 7 of plate II represents a cross section of arm III at the aboral surfaces of the sixth pair of arm marginals. The cut here under the lost portion of the arm was made to a still greater depth but sloping away from the arm plates in order to avoid accidental loss as these plates are very delicately attached to the bed. The lower edge of the circular covering glass is here seen and shows the depth of the excavation. The adambulacrals are almost in contact with each other. Again there is neither trace of ambulacrals or of aboral plates. The blackened porous bed is however still present.

In plate III, fig. 5, what is apparently the broken edge of the remains of a thick leathery integument is seen to run from arm IV across the interradius to arm III. Figure 3 of plate I shows that the remains of this integument blackened all the interradial spaces and followed the more distal borders of each