## NEW SPECIES OF CAMBRIAN FOSSILS FROM CAPE BRETON.

inner edge of the flattened margin of the valve; the "j" laterals are on the slope of the valve within the flattened margin.

The vascular trunks extend forward in a regular arch from the middle of the valve a little within the flattened margin, which is creased transversely by about a score of closely set parallel grooves. In the anterior third these give place to grooves that are at right angles to the margin; these correspond in course to the faintly impressed sub-parallel grooves that extend from the front margin across the middle of the valve to the visceral callus. Faint traces of branches of the vascular trunks are seen on the slopes of the valves in the anterior half.

The dorsal valve is of an oval form. It is strongly arched dow.1 in the posterior half, but less so on the anterior slopes. Interior.—This shows at the cardinal lines a depression in which are a pair of circular pits, due to the cardinal muscles. Between these pits, on the axial line is a small pit from which two sharp low ridges run forward; at one-third from the back of the valve there is a minute scar between these ridges; and outside of them in the posterior half of the valve are the large oval prints of the central ("h") muscles; these are set somewhat diagonally to the axial line, having the fronts turned outward. At the anterior ends of the median ridges are the small scars of the anterior lateral ("j") muscles. Faint diverging ridges extend from the umbonal cavity toward the lateral margins of the valves; at one-third from the back, partly on and partly outside the ridges are the large but rather faint imprints of the posterior lateral muscles.

This valve, like the ventral, has flattened margins on which are imprinted minute, closely set, transverse grooves.

Sculpture.—The sculpture of the true outer surface of this species is not easily found; it is imprinted on a thin calcareous, fibrous layer, which is usually broken away, revealing the next layer of the shell. The outer layer is traversed transversely by closely set striæ, forming ridges of which there are about nine or ten in the space of a millimetre; some of these ridges have cross striæ at intervals, others anastomose, and all have a roughened surface; the ridges have a waving course over the middle third of the shell, but elsewhere are comparatively straight.

Beneath the outer shell is a corneous layer whose sculpturing conforms to that of the outer layer, but the striæ are wider and the inter-

271

1