

Exterior of valves marked by concentric striæ or lines of growth that terminate on the cardinal edges of the valves, as in *K. cingulata*; nearly smooth and shiny, as in *K. Labradorica*; like that of *Trematis*, *K. pannula*, or *Lingulella*, *K. sculptilis*.

The interiors of the valves of the only species that we have showing the interiors, *K. cingulata*, have numerous radiating striæ extending from the beak outward toward the margins of the shell.

In the interior of the ventral valve four pairs of scars extend from the beak forward, as shown in fig. 1*d*, pl. ix.

The interior of the dorsal valve is divided midway by a narrow mesial ridge that separates two pairs of scars (adductors?); the anterior pair small.

Shell structure calcareous (*K. cingulata*, *K. Whitfieldi*), or horny (*K. Labradorica*, *K. sculptilis*).

### KUTORGINA CINGULATA Billings.

Plate ix, figs. 1, 1*a-h*.

*Obolella cingulata* Billings, 1861. Pamphlet; Geology of Vermont, vol. ii, p. 948, figs. 347 and 349. *Idem*, 1863. Geol. Canada, p. 284, figs. 287*a, b*.

*Obolella (Kutorgina) cingulata* Billings, 1865. Pal. Foss., vol. i, p. 8, figs. 8, 10.

*Obolella (?) Phillipsi* Davidson, 1866. Mon. Brit. Foss. Brach., vol. iii, p. 62, pl. iv, figs. 17-19.

*Kutorgina cingulata* Davidson, 1868. Quart. Jour. Geol. Soc., vol. v, p. 312. *Idem*. 1871. Mon. Brit. Foss. Brach., vol. iii, p. 342, pl. 4, fig. 25.

*Kutorgina cingulata* var. *pusilla*, Linnarsson, 1876. Brach. Par. Beds of Sweden. Bihang till k. Svensk. Vet.-Akad. Handl. Band 3, N:o 12, p. 25, pl. iv, figs. 53, 54.

*Original description*.—"Hinge-line straight, a little less than the greatest width of the shell; sides straight or slightly convex for about one-half the length; anterior angles obtusely rounded, front margin either uniformly convex or with a small portion in the middle somewhat straight. Greatest width a little in front of the middle. Ventral valve strongly and uniformly convex, most tumid about the middle; beak depressed below the greatest convexity of the shell; cardinal edges straight or gently concave, diverging from the beak at an obtuse angle; area unknown. Dorsal valve somewhat flat, most elevated at the beak, in front of which, along the middle of the shell, there is a wide, shallow concavity extending to the front margin; on each side of the beak, descending with a somewhat flat slope to the cardinal angles; area unknown, apparently half the height of the ventral area and nearly at right angles to the plane of the margin. Beak erect, obtusely pointed, forming the most elevated part of the shell. Surface with strong concentric sublamellose ridges, which do not converge to the beak, but terminate on the cardinal edges, their course conforming to the margin of the shell. Four or five ridges in the width of one line.

"Length of largest dorsal valve seen, six and one-half lines; greatest