

tion of Ontario,¹ are circular in outline, their inner surface being flat, or nearly flat, and their outer surface convex. They vary considerably in the amount of their external convexity, some being nearly hemispherical and others conical externally, and probably belong to more genera than one. By analogy with similar specimens that have been found in place, in shells of the genera *Polytropis*, De Koninck (= *Oriostoma*, Munier Chalmas), and *Cyclonema*, Hall, in the Upper Silurian rocks of Gothland, these multi-spiral opercula from Durham are pre-umed to belong to species of those genera, the *Euomphalus macrolineatus* of Whitfield, and the *Straparollus crenulatus* of the present writer, both of which occur at Durham, being now known to be referable to *Polytropis*, and the genus *Cyclonema* to be represented at Durham by the *C. sulcatum* of Hall, though this latter shell also may be a true *Polytropis*. Both *Polytropis* and *Cyclonema* are referred by Lindström to the family *Turbinidæ*, partly because their shells "have retained the most evident traces of a nacreous layer," and partly on account of their solid calcareous opercula.

About five or six years ago, a few opercula of an entirely different character to any of those already mentioned were collected by Mr. Townsend in the Guelph formation at Durham. These, so far as the writer has been able to ascertain, are so unlike any opercula that have hitherto been described as occurring in palæozoic rocks, that it is thought desirable to place a short description of them upon record. They are rather thin, nearly flat, but slightly concave externally and as slightly convex internally, broadly subovate, about one-fifth longer than broad, obtusely pointed at the end corresponding to the posterior angle of the mouth of the shell whose aperture they closed, *paucispiral* and composed of from two and a-half to three rapidly expanding volutions, the nucleus being subcentral. Only the outer or concave surface of each of these opercula is exposed to view, the inner side being buried in the matrix. The accompan-

¹ "Geological and Natural History Survey of Canada. Palæozoic Fossils," vol. III, pt. 1, Montreal, 1884, p. 33, pl. iii, figs. 10, 10 a-b and 11, and pl. vii, fig. 7.