

loose in this vicinity by Mr. D. B. Dowling in 1888,) also on the shores and islands of Cedar Lake and on the Saskatchewan below Cedar Lake by Mr. J. B. Tyrrell in 1890. At each of these localities it is apparently abundant and often associated with *Isochilina grandis*, Jones.

The specimens consist either of natural moulds of the exterior of the shell or of casts of the interior, in a compact fine grained dolomite, and in no case is there any vestige of the actual test remaining. In several of these natural moulds, however, the minutest details of the surface ornamentation are well preserved, and it is from wax impressions made from two of these moulds that the figures on Plate III. were drawn.

The species is apparently most nearly related to the *Strophomena Leda* of Billings,<sup>1</sup> from division 3 of the Anticosti group of the Island of Anticosti, (which Mr. Billings correlates with the Llandovery of England and with the Clinton of the State of New York), but seems to differ therefrom in its much larger size, and in the greater proportionate length of its cardinal spines. Both it and *S. Leda* are evidently what Professor H. L. Williams<sup>2</sup> would call "geological mutations" of the "race which began in *Strophomena alternata* in the Trenton stage," but they form a marked exception to his statement that in the American race of the *S. alternata* type the slender mucronate points at the terminations of the hinge line "first appear in the Tully limestone."

*Pentamerus decussatus*. (Sp. nov.)

Plate iii, figs. 3 and 4.

Shell large, usually longitudinally and rather narrowly subovate, about one third longer than broad, and broadest a little in advance of the midlength, but sometimes nearly

<sup>1</sup> Geol. Surv. Can., Paleoz. Foss., vol. 1, 1865, p. 120, figs. 98 and 99.

<sup>2</sup> See his paper on "The Cuboides Zone and its Fauna," in Bull. Geol. Soc. America, published May, 1890.