

&c., may be compared with the species under consideration. The glabella and the eye lobes vary from all except *P. Kjerulfi*.

The thorax has already been spoken of in the remarks following the description.

The denticulated form of pygidium in the genus *Paradoxides* with two terminal points is shown in the pygidia figured by Mr. Matthew¹ from the St. John group; and on the pygidia of *P. rugulosus* Corda, *P. Lyelli* Barrande, *P. expectans* Barrande, and *P. Oelandicus* Linnarson, four terminal points occur, as far as can be determined. The one specimen showing the pygidium of *M. Vermontana* has three terminal points, one central and one on each side.

Under the general remarks on the genera *Olenellus*, *Mesonacis*, and *Paradoxides*, the generic relations of *Mesonacis Vermontana* are still further discussed.

Formation and locality.—Middle Cambrian, Georgia Formation. Parker's quarry, township of Georgia, Franklin County, Vermont. Specimens corresponding to the head of this species occur at Bonne Bay, Newfoundland, and L'Anse au Loup, on the north side of the straits of Belle Isle.

Genus OLENELLUS Hall.

- Elliptocephala* Emmons, 1846. Agriculture of New York, pt. 5, p. 65, figs. 1-3.
Elliptocephalus Emmons, 1855. Amer. Geol., pt. ii, p. 114.
Elliptocephalus Marcou, 1860. Proc. Boston Soc. Nat. Hist., p. 371.
Olenus Hall, 1859. Twelfth Ann. Rep. N. Y. State Cab. Nat. Hist., p. 59.
Olenus Marcou, 1880. Bull. Soc. Géol. de France, 3^e sér., t. ix, p. 25.
Barrandia Hall, 1860. Thirteenth Ann. Rep. N. Y. State Cab. Nat. Hist., p. 115. *Idem*, 1861. Geology of Vermont, vol. i, p. 369.
Paradoxides Emmons, 1860. Manual Geol., p. 280.
Paradoxides Barrande, 1861. Bull. Soc. Géol. de France, 2^e sér., t. xviii, p. 277.
Paradoxides Marcou, 1862. Proc. Boston Soc. Nat. Hist., p. 245.
Paradoxides Billings, 1861. Geol. Vermont, vol. ii, p. 950. *Idem*, 1863. Geol. Canada, p. 953.
Olenellus Hall, 1862. Fifteenth Ann. Rep. N. Y. State Cab. Nat. Hist., p. 114.
Olenellus Marcou, 1862. Pamphlet, p. 5. Cambridge, Mass.
Olenellus Billings, 1865. Pal. Foss., vol. i, pp. 11, 365.
Olenellus Ford, 1877. Amer. Jour. Sci., vol. xiii, p. 265.
Olenellus Whitfield, 1884. Bull. Amer. Mus. Nat. Hist., vol. i, p. 151.
Olenellus Walcott, 1884. Monographs U. S. Geol. Survey, vol. viii, p. 28.

Dr. Emmons originally placed a species of this genus under the generic name of *Elliptocephala* (1846), considering it a new generic form; subsequently (1855, Amer. Geol., p. 114) he called attention to the similarity of the name to *Ellipsocephalus* (Zenker, 1833), but concluded "to retain it for the present." More recently the name *Elliptocephala* has been recognized (*Olenellus* (*Elliptocephalus*) *asaphoides*, Ford, Amer. Jour. Sci., 3d ser., vol. xiii, p. 265, 1877), but I think without good rea-

¹Trans. Roy. Soc. Canada, vol. 1, pl. x.