The Utica Formation.

Stephanella saneta, Hinde, characterizes the Middle Utica of the Ottawa Valley, and represents the Protozoa.

A few Graptolites occur in this formation, prominent amongst which are :—*Leptograptus flaccidus*, Hall, *Orthograptus quadrimucronatus*, Hall, *Cimacograptus*, like *C. typicalis*, H., and a *Diplograptus*, usually referred to *D. pristis*, Hisinger, possibly also *D. Putillus*, H.

Brachiopoda abound in the lower measures of this formation.

Leptobolus insignis, Hall, *Schizambon fissus*, var., *Canadensis*, Ami. *Lingula Progne*, Billings, *Schizocrania filosa*, Hall, are eminently characteristic of the Utica shales and associated limestones. Besides these, *Dalmanella testudinaria*, Dalman, *Rafinesquina alternata*, Emmons, and *R. deltoidea*, Conrad, together with *Plectambonites sericea*, Sowerby, *Lingula elongata*, Hall, *L. Cobourgensis*, F. , *L. quadrata*, Eichwald, are also found at this horizon in the Ordovician System.

The Lamellibranchiata are represented here by *Lyrodesma pulchellum*, Hall, *Orthodesma parallelum*, Hall, *Pterinea insueta*, Conrad, *Prolobella Trentonensis*, Conrad, and *Modiolopsis modiolaris*, Hall, besides other rarer and less characteristic species.

The Pteropoda yield two species :—*Conularia Trentonensis*, Hall, and *C. Hudsonia*, Emmons.

Of the Gasteropoda the following have been recorded from the Utica of this basin :—*Bellerophon bilobatus*, Sowerby, rather abundant, *Clathrospira*, Hall, less frequent, *Trocholites ammonius*, Conrad, most abundant, and *Lophospira bicincta*, Hall, rarely found.

The class Cephalopoda have afforded innumerable shells of the genus *Cameroceras*, probably *C. proteiforme*, Hall, *Orthoceras tenuistriatum*, Hall, *Orthoceras amplicameratum*, Hall, *O. lamellosum*, Hall, etc.

The class Annelida is represented by *Serpulites dissolutus*, Bill., and a pretty little Conodont as yet undescribed.

The class Trilobita has yielded the following species :—*Triarthrus Becki*, Green, *T. spinosus*, Bill., *T. glaber*, B., *Ceraurus pleurexanthemus*, Green, *Asaphus latimarginatus*, Hall (= *A. Canadensis*, Chapman), and *Calymmene senaria*, Conrad.

Silurian.

The Lake Temiscaming outlier of the Ottawa Palæozoic Basin consists for the most part of Silurian rocks. From collections made by the Geological Survey of Canada previous to 1863, and from collections made by Dr. Bell in 1887 and by Mr. A. E. Barlow in the years 1893