

Of these the Niagara formation is referable to the Silurian System and the remainder to the Ordovician or Cambro-Silurian System.

THE POTSDAM SANDSTONE FORMATION.

The characteristic fossils of the Potsdam formation in the Ottawa Palaeozoic Basin comprise the following tracks or trails of marine organisms:—*Climactichnites Wilsoni*, Logan, *Protichnites octo-notatus*, Owen, *P. lineatus*, Owen, *Scolithus Canadensis*, Billings, *Ophileta complanata*, Vanuxem, *Lingulepis acuminata*, Conrad sp., together with *Palaephycus Beverleyensis*, Billings, besides obscure remains of *Orthocera* have also been found in beds of this age. No truly primordial fossils have as yet been recorded from the Potsdam sandstone formation of the Ottawa Palaeozoic Basin such as have been found in the Potsdam of New York, Wisconsin and Minnesota. The *Dikelocephalus* and *Conocephalites* zones are not as yet known to exist anywhere in this basin.

THE CALCIFEROUS FORMATION.

The Calciferous fossils of the Ottawa Palaeozoic Basin are not numerous, but are of considerable interest and importance, and include the following:—*Metoptoma simplex*, Billings, *Pleurotomaria calcifera*, Bill., *P. Canadensis*, Bill., *Hormotoma Anna*, Bill., *H. Artemisia*, Bill., *Tarritoma Ada*, Bill., *Oxydiscus macer*, Bill., *Ophileta complanata*, Vanuxem (= *O. compacta*, Salter, of Can. Org. Rem., Decade I.), *Ophileta disjuncta*, Billings, *Maclurea addita*, Bill., *Lituites Apollo*, Billings, *Orthoceras veterator*, Bill., *O. Lamarecki*, Bill., *O. edax*, Bill., *O. Glaucus*, Bill., *Amphion Salteri*, Bill., *Bathyrus Cybele*, Bill., *Dolichometopus rarus*, Billings, *Ribeira calcifera*, Bill., *R. longiuscula*, Bill. The best localities for collecting fossil organic remains in this basin are Lot 3, Con. IV., Oxford, Ont., near Merrickville, the counties of Leeds and Grenville, near Carillon, Que., and Lachute, Que. The fossil fauna of this formation in this basin is still very imperfectly known.

THE CHAZY FORMATION.

The fauna of the Chazy is readily distinguished from that of the Calciferous formation, and corresponds to the nature and conditions of sedimentation in those early Ordovician times. The lower beds of the Chazy are arenaceous, and hold the characteristic fossil *Scolithus*, probably a new form, in great abundance, also an extensive series of tracks and trails of marine organisms, some of which may have been made by gasteropoda, some by trilobites, others by annelids, and others by various other groups of molluscs. Most of these are undescribed.

The form *Rhynchotrema plena*, Hall, so abundant at Montreal and in the Lower Ottawa Chazy, has been but sparingly found in the Chazy