

THE OTTAWA NATURALIST.

VOL. IX.

OTTAWA, JUNE, 1895.

No. 3.

NOTES ON THE STRATIGRAPHY OF THE CAMBRO-SILURIAN ROCKS OF EASTERN MANITOBA.

By D. B. DOWLING, B. A. Sc..

(By permission of the Director of the Geological Survey.)

Along the western edge of the great Archæan area which lies north and west of Lake Superior, stratified deposits are found lying unconformably on the irregular surface of these older rocks.

As early as 1819 they were recognized by Sir John Richardson, who accompanied Sir John Franklin on his overland expedition, to be similar in age to those of the Black River formation of eastern Canada. Numerous papers have since been published on observations made in other localities, and prominent among these is the report by Prof. H. V. Hinde, of the Saskatchewan Exploring Expedition. The general conclusions from all these reports and papers is, that there is a definite series found in the district, which represents the Hudson River formation, but the beds in the lower part of the section have become rather confused, owing to a lack of definite knowledge as to their sequence.

During the seasons of 1890 and 1891, Mr. J. B. Tyrrell, with the writer as assistant, was engaged in a survey of the geological features of Eastern Manitoba, having special reference to the exposures of the rocks on the shore of Lake Winnipeg. A part of the writer's duties consisted in making an examination of the exposures on the islands and western shore of the lake, in order to follow as closely as possible, the sequence of beds and determine the probable thickness and extent of the formation. The present paper is intended to give in outline, the field relations of the several exposures visited and examined by either Mr. Tyrrell or the writer. A full detailed account will be found in the forthcoming Report by Messrs, Tyrrell and Dowling in the Annual Report of the Geological Survey Department.