NOTES ON THE GEOLOGY OF SOME ISLANDS IN LAKE WINNIPEG, -BY-

J. HOYES PANTON, M. A., F. G. S., Guelph, Ont.

On a former occasion, I had the honor of reading a paper before the members of the Historical and Scientific Society, of Manitoba, on "Outcrops of Silurian Strata in the Red River Valley." To-night I purpose directing your attention to some exposures of rock on the islands in Lake Winnipeg.

When Prof. Hind undertook his geological investigation about the year 1857, he visited some of these; but my attention to them was chiefly directed in the summer of 1884. The results of his researches I shall to some extent embody in this paper, along with those of my own efforts in that locality.

Lake Winnipeg may be said to commence about 40 miles north of the city of Winnipeg and forms an outlet for the Red River, whose muddy waters exercise a coloring influence upon it for nearly 150 miles; beyond this the water of the lake is comparatively clear. The lake is naturally divided into two parts; the lower about one hundred miles in length and 30 in width. This portion narrows in the upper end until the opposite shores approach each other within three miles and form a strait for the distance of 8 miles, where the narrowest space is reached at Dog's Head; here the passage is only two miles in width. At this point you pass into the upper division and main portion of the lake.

This is about 200 miles in length and 60 in width. Considered as whole the lake may be said to be 3000 miles long and 60 at its widest part, embracing an area of 8,500 square miles and not exceeding 65 feet in depth. The islands scattered over this body of water will afford many interesting localities for geological visits by the energetic members of this society. Here we find opposite shores presenting rocks belonging to entirely different systems; the east side Laurentian, the west Silurian; here too are excellent lessons of the denudating effect of water on limestone in striking contrast with the slow disintegration of rocks belonging to an older series under the same conditions.

The shallowness of this comparatively large body of water, accounts for its treacherous nature and explains how on many

124646