Leaving Sault Ste. Mary again on the 27th August, the writer proceeded by steamer to Prince Arthur's Landing, with the intention of examining the country,

thence to Winnipeg, along the line of the Canadian Pacific Railway.

This could not be carried out, as the trains, owing to a break on the line, were not running, and there was no certainty when traffic would be resumed. It was, therefore, decided to proceed, viá Duluth, to Winnipeg, which was reached on the 2nd, and left on the 5th of September, for Portage La Prairie and Westbourne, where some days were spent in examining the country around the southern shores of Lake Manitoba. No rock exposures were found, the surface of the country being everywhere covered with a deep black soil, resting on a great, but varying, thickness of drift, which is well exposed in the banks of the White Mud River. Some worked flint chips and arrow heads were found at one point on the lake shore, a short distance east of the mouth of White Mud River. They were apparently washed up from the bed of the lake. On the 11th September I proceeded to Brandon, and thence, southward, across the plains to the Souris River. Several days were spent in the vicinity of Souris City and around the Brandon Hills. Thence the country was examined viá the Tiger Hills, Rock Lake, and the Pembina River to Emerson, arriving there on the 3rd October and leaving again to return east on the 5th. Cost of season's exploration—\$1,179.34.

It seems very desirable that further explorations should be made in the Souris valley and the adjacent country. The Cretaceous rocks which crop out there are apparently nearly on the same horizon as those in which the lignite coals of the Bow and Belly Rivers occur. A careful search may therefore, very possibly, result in the discovery of workable lignite coal beds, either in the lower part of the Souris River

valley, or between it and the valley of the Pembina.

It is unnecessary to dwell on the vast importance of such a discovery to all the inhabitants of this magnificent agricultural region; but from the generally drift-covered and even character of the country, and from the strata being practically horizontal over such wide areas, there is little hope, even though they exist, of coal beds being discovered, except accidentally, without having recourse to boring. From the comparatively soft nature of the strata to be penetrated, this would not be a very costly operation; but, in any case, twenty or thirty thousand dollars judiciously applied would be money well spent in view of settling such an important question. It is proposed during the ensuing summer to thoroughly investigate the matter, so far, at least, as a careful examination of the surface and of all natural exposures will enable this to be effected. Attention has been called to the probable value for brick making of some of the smooth fine-grained Cretaceous shales which are cut by the Souris and Assiniboine Rivers, and the result of experiments made by Mr. Hoffmann on the samples submitted to him will be given in the annual report. They seem to show that we have, in these shales, an excellent material for the manufacture of the most refractory bricks, if not also for fine earthenware; and, if workable seams of lignite should be discovered associated with these shales, the manufactures referred to would be greatly facilitated.

## QUEBEC AND NEW BRUNSWICK.

The explorations and surveys in New Brunswick were continued during the season by Mr. R. Ells and Mr. W. Broad, those of Mr. Ells having extended into the Province of Quebec, around the north shore of the Bay of Chalcurs and the Gaspé Peninsula, from Cape Rosier to Métis. The examination included the valleys of the Restigouche and Metapedia, and of the Dartmouth and St. John Rivers of Gaspé. The St. Anne and the Magdalen Rivers were also ascended, and some observations were made in the Shickshock Mountains. This region is probably an important one, but the difficulties in the way of its exploration are very great. The rough and precipitous character of the numerous streams proceeding from it, and the dense forest which covers the whole of the intervening country, except the rugged summits which rise to elevations above the tree line, together with the