THE MINES OF ONTARIO.

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I will endeavor to give some of the information I gathered during the two years I was an active explorer in the Rainy River, 1890-91, and from what I have gathered during the last few years, when I have been somewhat closely connected with the mining interests of that district, so that you may have some idea of the great mineral wealth of Ontario's most westerly possession. I am fully alive to the responsibility resting on anyone writing about a new mining country, and shall hew closely to the line, so that no one going to the new field shall be disappointed in not finding things fully as good as stated in this paper, but rather be able to say the half has not been told.

Indeed, it would be very difficult to overestimate the possibilities regarding the mineral wealth of New Ontario. Up to the year 1856, when Napier made his first exploration trip through the district, but little was known of the new region, and, in fact, that statement would almost hold good at the present time with reference to a great portion of the country lying even south of the C.P.R., between it and the northern boundary of Minnesota, while the country to the north of the railway is as yet a closed book. The building of the great railway, the C.P.R., has done much to open up the western country, and no portion of Ontario has been more benefited than has this new district. It occupies that great stretch of country lying between Thunder Bay district and the Province of Manitoba, 192 miles in width, and extending from the northern boundary of Minnesota, north to Lake Seul, 175 miles in length, on its eastern boundary, and averaging not less than 125 miles, and comprising an area of nearly 20,000 square miles, or about 12,000,-000 acres, including within its limits the Lake of the Woods, with its 1,400 or more islands; Rainy Lake, with its 600 miles of coast line, or more than that of Lake Ontario, Manitou, Wabigoon, Eagle, Lonely, and more than a thousand other lakes, in fact, one might call it "the land of a thousand lakes."

The general physical characteristics of the country are very similar to those found in other glacier-swept Archean tracts, such as the north shore of Lake Huron, Muskoka, or Parry Sound. In few places is the country as mountainous as the north shore of Lake Superior, or as difficult to explore as the region north of Lake Huron. Within the district are to be found many large and magnificent streams—Rainy River, 80 miles in length, with an average width of not less than 500 feet; Winnipeg, English, Seine, Manitou, Eagle, and many more streams are quite navigable for large boats in places. The geological formation of the district is either Laurentian, Huronian or Keewatin, and post glacier, the Laurentian rocks predominating. The most recent, the clays and sands, form the agricultural section of the region along the Rainy River and around Wabigoon.

Of the total area of the district, nearly 5,000 square miles is covered with the Huronian, or gold-bearing, rocks. It will, therefore, be seen what a vast field there is for prospectors in this new district. I believe that this new Ontario will yet be one of the richest gold districts in the Dominion within the next ten years; yes, on the continent. The success which has attended mining in that thinly-populated and undeveloped condition of the country in the past two years is but an evidence of the great success which awaits the future exploration, not only for gold, but for other minerals.

The history of the district since attention was first drawn to it by the discovery of gold, about fourteen years ago, shows that nearly all the exploration to which the country has been subjected, up to within the last 18 months, has been confined to the shores of the Lake of the Woods, Rainy Lake and a few of the larger streams tributary thereto. Few prospectors have ever penetrated into the interior; in fact, this will apply even up to the present time, they having contented themselves in prospecting the main waterways, which are easy of access, going back but a short distance inland, so that at the present time but a very small portion of the country, even convenient to the C.P.R., or the larger lakes, has as yet been even partially explored.

Long, after the first discovery of gold on the Lake of the Woods, very little development work was done, except on the Pine Portage and Sultana mines: this was partly owing to the want of capital, but more particularly to the belief that there was little gold to be found in the district. The good results attending the development of the Sultana mine have done much to encourage others to prospect and develop discoveries, and in nearly every instance where development work has been done the results have been highly satisfactory, so much so that during the last two years prospecting has

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been very active, and has resulted in the discovery of a great many veins of gold-bearing quartz, many of them undoubtedly rich, and will yield large profits when mined.

Mining, properly speaking, can scarcely be said to have more than begun, except in a few cases. Prospecting, however, has been very active, and many of the leads are well stripped and opened into. No less than 100 different mines are being developed or partly so, so that with the increased shipping facilities, the building of new roads by the Government, the investment of English and foreign capital in the district of late, it is confidently anticipated that this year will see extensive mining operations and good returns therefrom; in fact, there are no less than half a dozen stamp mills, either being shipped into the district or being erected, at the present time.

The good results of the last six months' mining have given to those interested in the future of the Lake of the Woods unqualified satisfaction. Everything, with few exceptions, has gone to show that their confidence has been well grounded. Those who were at first most skeptical as to the permanency in depth and richness of the deposits have candidly yielded in the face of the unquestionable evidence offered them in the splendid showing of such mines as the Sultana, at a depth of 400 feet, with an enormons body of rich ore at that depth, and every appearance of an unlimited quantity, which can be mined and stamped with even a 10-stamp mill at less than \$4 per ton. The Regina mine, at a depth of 286 feet, with a similar mill, is producing gold at nearly the same cost per ton; other mines in the district, such as the Mikado, Yum-Yum, Cornucopia, Goldcoin on Shoal Lake, Gold Hill, Black Jack, Princess, Scramble, Trojan, Triumph, Bath Island, and many others on the Lake of the Woods, are producing large quantities of rich ore, and there is scarcely the shadow of a doubt but that most of them will be pay mines. The Mikado yielded 136 tons of ore at first clean up, while the Saw Bill, Lake Harold, Hawk Bay, Folger and Hammond are all producing large quantities of ore, and are undoubtedly splendid mines. On Seine River the Foley mine has a 20-stamp mill at work. and can work the ore at \$3 per ton. They are down several hundred feet in the shaft, and there is every appearance of it being a permanent mine. The Porcupine, the Weigand, Proudfoot, and many other mines on the Seine River, are turning out very successfully.

Rainy River, as a gold district, can be conveniently divided into five sections-first, and probably the most important, is the Lake of the Woods section, including all the country northwest of Rainy Lake and around Shoal Lake; west of the Lake of the Woods, comprising an area of not less than 2,000 square miles, in which there has been over 1,500 claims surveyed, and the Rainy Lake section. Gold was first discovered on a small island in Rainy Lake on the Minnesota side of the line, in the fall of 1893. In the spring of 1891 was found a small nugget of free gold on Hunter's Island. Since that time the prospecting has been very active and several good mines located, on which stamp mills are now working. The Manitou section, comprising the country round Manitou, and Wabigoon and Eagle Lakes, in which there are over 300 locations surveyed and several good veins, well developed, and from all appear ance this has every likelihood of being a very good gold district. One of my Indians, in 1890, found a sample, showing free gold, at the head of this lake, and I arranged with him to take me to the place, but a few hours before starting the Indian got drunk, and I have never been able to get him sober enough to go out.

The Saw Bill Lake section, including the country around Saw Bill and Harold Lakes, in which about 125 claims have been surveyed; this is one of the most promising sections in the district and contains the great Folger and Hammond dyke from 10 to 300 feet in width and nearly a mile in length, and which appears to assay from a few dollars per ton up to \$100 or more; this is probably one of the largest quartz ledges ever discovered in the province, and is probably one of the most enticing properties on the market

The year 1883 marks the beginning of surveys of mining locations on the Lake-of-the-Woods. No less than 4,000 claims have since been surveyed, during the last two years 2,500, and over 1,500 during the last 12 months. Within the district 1,500 patents and mining leases have been issued, covering over 2,000 claims. From fifteen to twenty Ontario land surveyors and their assistants are in the field at the present time, hard at work. Of the 4,000 claims already staked out there are, of course, an unusually large number of worthless and comparatively worthless properties, but at the same time there appear to be an unusually large number of promising veins. If one claim in every 100 proves a paying mine, forty gold mines in the district mean a great deal. If 2 per cent. prove successful properties, it will make one of the best gold regions in the Dominion, if 5 per cent. it will surpass that of California. A