

imagined, at or near the junction of the Laurentian and Huronian rocks. About the middle of the lake the rock is, I think, Huronian on the west, if not on both sides. And here there are favorable indications of copper; indeed I found a vein which contained the green carbonate, as well as the yellow ore, known as copper pyrites, but not in paying quantity, even if the vein had been advantageously situated for working.

THE PRACTICABILITY OF DRAINING MANY LAKES AND THEREBY RECLAIMING LARGE AND VALUABLE TRACTS OF LAND.

There is one feature common to almost all the lakes in this territory which I regard as of the greatest importance in estimating its capabilities and value in an agricultural point of view. And that is—the remarkable shallowness of the water, and the apparent ease with which many of these lakes can be drained and vast areas of fertile land reclaimed.

For instance, in this south-eastern portion of the territory we have Lake Abittibi with an area of not less than four hundred square miles—and incredible as it may appear—a mean depth of water, in the summer, not exceeding in my opinion *ten feet*. The soundings taken by us on the south side of the lake never exceeded nine feet, even in the widest stretches and when furthest from the shore. I have been told, however, that it is somewhat deeper on the north side of the lake—though shallow even there. Then we have Bank Lake—the area of which is seemingly thirty or forty square miles—and the average depth of which, judging from what I saw of it, does not exceed six feet. And thirdly—there is Nighthawk Lake with its marshes, covering an area of at least one hundred square miles, and yet nowhere, that we tried, is it more than ten feet in depth. Thus without taking into account the smaller lakes, such as Round Lake, and numerous marshes, I find in the comparatively limited section explored this season, no less than five hundred square miles or three hundred and twenty thousand acres—the far greater part, if not all, of which can in my opinion be drained at a very trifling cost as compared with the value of the land reclaimed.

Lake Abittibi is very advantageously situated in this respect—there being at its outlet a fall “called Couchiching”—which is estimated to be about fifty feet. If the apparently narrow reef of rock over which the water descends were only partially removed, it would, so far as I am able to see and judge, in all probability completely drain the greater portion of the lake above.

In Europe very costly operations of this description have been undertaken, with the view of reclaiming areas of land, a tithe only of what might be expected in the case of Lake Abittibi. One notable instance is that of Haarlem Lake in Holland, where forty thousand acres of fine land were thus reclaimed. In that case, however, the water had actually to be pumped out. This, difficult as it may appear, was successfully accomplished by an English Company, who employed several large and powerful steam-engines made if I am not mistaken in Cornwall, famous in those days if not still, for the excellence of its pumping engines and machinery. It took a number of years, however, to drain the lake, and even when completed, some of the engines had to be retained in order to keep it drained, for the bed of the lake being below the level of the sea, the water could not be otherwise got rid of.

Lake Abittibi, on the other hand, is at least seven hundred feet above the level of the sea, and at its outlet there is a sudden drop or fall of fifty feet, or to a level forty feet below the bottom of the lake. The reef of rock which occurs at this place has at one time been much wider, if not higher than it is at present. But the action of the water and ice, operating slowly but surely during unnumbered ages, has broken down and removed by far the greater part of this barrier; and now, so far as I am able to see, there remains comparatively little to be done in order to complete the drainage of this immense lake.

If a passage were cut through the remaining portion of this reef of rock sufficiently wide and deep to discharge or let off the water at this point, very little further expense would,