

feet, and sinking had been begun on the Government vein at the time of our visit, rich specimens coming from the latter ore body. On the Finn vein, one of the widest, a shaft had been sunk seventy feet. The work thus far done shows that the veins are not usually very wide, but that there is in the aggregate a large amount of fairly rich ore available.

The only other property in the region requiring special mention is the Lucky Coon or Hillier mine, on 655P, where a shaft has been sunk to the depth of about fifty feet on one of the veins and a five-stamp mill erected. The quartz looks well, and the vein chiefly worked is about eight feet wide at the bottom of the shaft. Owing to disagreements among the owners the mill was run for only a short time. This mine has been taken hold of by Edinburgh capitalists, who propose to develop it this winter with the intention of purchasing if the results are satisfactory.

Many locations have been taken up in the Keewatin schists east of Shoal lake, and also along Little Turtle river and lake, north of Bad Vermillion lake. These deposits are mainly bedded veins or fahlbands, and have been very little developed, though rich specimens of free gold come from them, and a plucky company of Norwegians have pounded out a few hundred dollars worth of gold with hand stamps from a vein on the Little Turtle.

On Rainy lake itself gold has been found at a number of points; but the only mines worked are two in Minnesota. Of these only the Little America mine on a small island near Rainy Lake City has produced much gold. From it several thousand dollars worth have been obtained, and after many vicissitudes it is now said to be worked at a profit. Minnesota, however, contains only a narrow fringe of the gold bearing Huronian rocks which cover so wide a surface to the north and northeast in Canada.

North of Rainy lake and south of the Canadian Pacific Railway, at Wabigoon, is a very promising region on the shores of lake Manitou and smaller bodies of water near by. Ore deposits of varying kinds and of all degrees of richness occur here, and brilliant specimens are found, but nothing that can be dignified with the name of mining has yet been attempted. A two-stamp Tremaine mill has been at work for a time under the management of Mr. E. B. Haycock of Ottawa, who reports an average of about \$25 per ton from small amounts of rock obtained from a number of veins on lake Manitou, in the aggregate about eighteen tons. Difficulty of access from the want of a summer waggon road, by which to bring in the supplies and machinery, has retarded development in this district.

Gold has been found at various points north of the railway, e.g. on Minnetakie and Sturgeon lakes; but the locations are yet only in the prospecting stage.

A canoe journey westward over seldom visited waters took us from Manitou lake to Regina Bay, a part of Whitefish Bay, the long southeasterly projection of the octopus-armed Lake of the Woods. The Regina mining camp with its trim buildings comes as a pleasant surprise to the canoeeman who for five days has seen no human being outside his own party. The Regina (Canada) Gold Mine Company (Limited), of London, England, is operating this mine, Lieut.-General H. C. Wilkinson, being managing director. At the time of our visit a shaft had been sunk one hundred and sixty feet, and 500 feet of drifting had been done on the main vein, besides the sinking of small shafts for the testing of one or two other ore deposits. The vein on which most work has been done begins in a mass of protogine granite near the shore, and runs into a weathered diabase (trap) towards the south. There is a rich shoot of ore running down through the granite into the diabase. The gold is fine and difficult to save by the present concentrators. The mill is of ten stamps, and the number of men employed about fifty.

Many locations have been taken up near the Regina and farther northwest on Yellow Girl and other bays, but none have been worked seriously. Nearer Rat Portage, however, especially along the contact of Laurentian and Huronian running northwest from Andrew bay to Black Sturgeon lake, a number of shafts have been sunk, generally to a depth of fifty feet, and at several points abandoned or active mining plants may be seen. At the time of our visit only two mines were producing gold, the Golden Gate, whose ore was being crushed at the mill of the adjoining Gold Hill mine, and the Triumph, which was having its ore tested with a two-stamp Tremaine mill.

There are a number of other promising properties, including some wide fahlbands, north of the Canadian Pacific Railway, such as the Scramble mine, and two or three others said to have been found by the aid of a divining rod imported from Sweden. However found, these sulphide bearing bands of schists readily yield gold in the pan, and probably some of them will turn out valuable mines.

The most justly famous mine in our whole western gold field is undoubtedly the Sultana, on an island seven miles southeast of Rat Portage, owned by Mr. John F. Caldwell of Winnipeg. After years of hard struggle against adverse circumstances, this plucky and energetic mine owner is reaping a solid reward in the shape of a great body of rich quartz in places forty feet wide, and already followed more than three hundred feet in depth. Nearly a thousand feet of drifting have been done and there is ore enough in sight to keep the well equipped ten-stamp mill, or one double its size, running for years. The ore bodies appear to be lenticular, the lower one of immense size, and are enclosed in the sheared and schistose edge of an area of coarse porphyritic granitoid gneiss, mapped by the Geological Survey as Laurentian, but adjoining green Huronian rocks. The ore is somewhat quartzitic looking, contains one or two per cent. of iron pyrites, and is free milling to the extent of 75 or 80 per cent. A recently finished chlorination plant extracts the gold carried by the sulphides very satisfactorily. Gold mining at the Sultana has been reduced to a thoroughly business-like basis, the mill running with scarcely a halt and the weekly brick being turned out with perfect regularity. If this splendid mine had been in the hands of a stock company much would have been heard of its dividend-paying powers; but its owner is too modest to boast of its success.

Perhaps the most interesting mining development of the year is to be found on a western Shoal lake, thirty-five miles from Rat Portage and about ten miles east of the boundary of Manitoba. The Mikado mine, found by an Indian a year ago, has been purchased for \$25,000 by a London company under the chairmanship of Col. W. T. Engledue, and has been worked sufficiently to show that the ore is very rich, though not enough sinking has been done to prove the extent of the deposit. The quartz contains a variety of sulphides, including a sulphide of bismuth, new to the Lake of the Woods region, and a considerable part of the gold is carried by these refractory minerals; but probably two-thirds of the gold contents are free milling, the gold occurring as thin plates rather than nuggets. The ore treated is the richest found in large quantities in Ontario, and the ore now on the dump after only a few months' work by a small force contains values sufficient to pay for the mine and a simple equipment.

Several other finds of very rich ore have been made in the vicinity of the Mikado, and next summer will probably see the development of an important mining camp in that district.

At a number of other points on Lake of the Woods and its bays promising finds of gold have been made, e.g. at Camp Bay to the southeast, but none of them have been worked sufficiently to make sure of their value.

Looking at our gold mining region as a whole, one is struck by the wide extent over which gold has been found, the variety of deposits that occur, the ease with which they may be reached, the free milling character of most of the ores, all points in its favor as compared with most gold regions.

No part of the region is more than forty miles from a railway or steamboat, and most of the mines are within a few miles of the rails or of navigable waters. In winter a road sufficient to take in heavy machinery may be made without difficulty to any point in the region, and the Ontario Government has shown itself liberal in granting assistance to such roads.

All parts are readily reached by canoes in summer. Plenty of water of good quality is found everywhere, and wood for fuel, building or mine timbering almost everywhere. The region is not an inaccessible desert, nor covered with malarious swamps, nor cut off from civilization by precipitous mountains. Supplies of all sorts are cheap; efficient labor can be obtained on easy terms, the labor of white men, not of negroes or Indians; and life and property are as safe as anywhere on the globe.

The laws relating to mining and mining locations are simple, and generally admitted to be fair and favorable to the prospector and mine owner. All locations are bounded by east and west and north and south