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THE CANADIAN MINER

VOL. I. TORONTO, ONT., FEBRUARY 27, 1897. No. 7.

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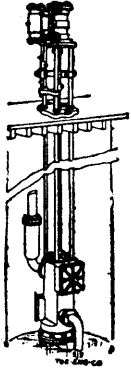
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TORONTO, May, 25th, 1894.

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The Canadian Miner.

VOL. I.

TORONTO FEBRUARY 27, 1897.

No. 7.

THE SILVERY SLOCAN.

British Columbia's Leading Mining District.

THE following extract from the recent report of Mr. W. A. Carlyle, provincial mineralogist of British Columbia, will be new to nearly all readers in Eastern Canada, and is well worthy of careful perusal by practical miners and by investors who wish to get hints on the occurrence of precious metals, and the cost of working mines. Mr. Carlyle says:

The Slocan, according to the number of its shipping mines and the amount and value of the ore sold, now ranks as the most productive mining district in the Province, and of importance is not surpassed by any other.

In an area of fifteen by twenty-five miles, there have been discovered many veins of high grade silver-lead ore, which are being developed with great vigor and success, and among the mining men is every feeling of confidence and hopefulness. This winter nearly fifty of these properties are shipping high grade ore that yields very profitable returns, and a large number of other claims are being opened up.

So far but comparatively little imported capital has been expended here, as in the case of nearly every mine now established sufficient money has been realised from ore extracted during development to pay for more extensive workings, new buildings, mills, trails, roads and also dividends, but more or less capital will be required to properly open up many other claims on which the veins exist, but are not so easily accessible as those first discovered. But as most of these veins are found along the steep mountain sides and can be worked by tunnels, and the cost of mining is low, requiring little or no machinery, capital will be necessary mostly when tramways and concentrators are to be built, or in some cases for hoisting plants and pumps when tunnel sites may not be available.

Many of the mines are located near the summits of the high precipitous mountains at an elevation of 5,500 to 6,500 feet above sea level where erosion has cleared away nearly all the debris from the veins, but lower down also on the mountain sides and in the valleys, are being found other veins or those discovered first much higher up to the highest of which now run good trails or wagon roads or else wire rope tramways. The snow that lies deep on these summits during the winter is in no wise detrimental to mining operations, as most work is done after its fall, when the ore can be dragged down the smooth snow trails in rawhides in larger loads and at lower prices than are possible in the summer time, but the tracks of snow-slides must be carefully avoided.

During 1896, 18,215 tons of ore yielded 2,141,088 ounces of silver and 19,210,666 pounds of lead, or an average of 117.4 ounces of silver per ton and 52.7% lead which would have a net profit of about \$75 per ton, while many carloads were shipped that yielded from 300 to 400 ounces of silver per ton.

The "Slocan Star" has of course the larg-

est chute of high grade ore yet found in the district, and we are kindly permitted to state that from 11,529 tons of ore and concentrates sold during the last three years, 912,600 ounces of silver and 13,482,000 pounds of lead have been paid for by the smelters, and of these amounts 7,000 tons yielded 600,000 ounces of silver and 9,000,000 lbs. of lead during the past season of 1896.

Many of the veins are small, varying from 2 to 3 inches in width to 20 to 30 inches of solid ore, but the high value of silver at present makes this ore very profitable together with the low cost of breaking ground. The small Reco-Goodenough vein, the width of which is measured in inches, is probably the richest vein yet mined, as from the smelter returns of 600 tons the average was 407 ounces of silver per ton and 42% lead. The high percentage of lead makes this ore a very desirable one for the smelters, and the lead contents are usually sufficient to pay the freight and treatment charges, and the duty charged on the lead.

At no time in the history of the district have so many mines had high grade ore exposed, and of such mines can be named, among others the Slocan Star, Ruth, Wonderful Monitor, Idaho, Alamo, Cumberland, Ivanhoe, Queen Bess, Wild Goose, Payne Group, Slocan Boy, Washington, R. E. Lee, Last Chance, Noble Five Group, Reco, Goodenough, Blue Bird, Antoine, Surprise, Rambler, Best, Dardanelles, Northern Belle, Whitewater, Wellington, Charleston, Lucky Jim, London Hill, Reed & Tenderfoot, Fisher Maiden, Thompson Group, Galena Farm, Enterprise, Neepewa, Bondholder, Two Friends, Howard Fraction.

THE ORE AND ORE DEPOSITS.

There are 4 distinct kinds of veins in the Slocan:—

1. The argentiferous galena, with zinc blend, and some grey copper in a gangue or matrix of quartz and spathic iron. These veins cut across the stratified rocks, and through the dykes of eruptive rock, where, in many cases there is a good body of ore, and they also occur in the granite area, and with even the limited amount of prospecting, some have been traced from 3,000 to 4,000 feet along the strike, and one for nearly 2 miles. In the Slocan slates it has not yet been proven that as the vein cuts through shales, slates, limestones or quartzites, that any of the series has been more favorable to the formation of ore-bodies than another, as in the different veins it will be seen that good ore chutes may have the wall of any of these rocks mentioned. The ore has been deposited along fissures, both in the open fissure cavities and by impregnation of the country rock, and in the cavity-filled veins can be seen the banded structure described elsewhere, or the solid, usually big-cubed galena, shows lines of foliation parallel with the walls, but it is evident that further motion has occurred along some of these vein fissures after ore has been deposited.

Most of the veins are narrow, varying from 2 and 3 inches to 15 and 20 inches in width, with occasional widenings to 3 or 4 feet of solid ore, and even much more, as

seen in the Slocan Star and the Alamo-Idaho veins. The ore chutes are not persistent horizontally, as is characteristic of nearly all veins, but ore is often continuous for several hundred feet, and where it then pinches a thin streak of oxides is the index usually followed in the search for more ore, which seldom fails to re-appear with more or less work. The mistake is made sometimes of following along a slip-wall or crevice that may cross the vein crevice at a flat angle, and thus lead the miner astray. Besides the solid ore some veins have associated with them 2, 3 or more feet of mixed ore, gangue and country rock, or a brecciated mass which may be of such grade as to pay well for concentration; and already there are three concentrators, the Alamo, Slocan Star and Washington, doing very satisfactory work, and the Noble Five mill almost completed, with the erection of two, at least, contemplated this year. The product or concentrates is silver-bearing galena, but any value contained in the decomposed material that may enter the mill, will in all probability not be saved, likewise, that in much of the grey copper, which apparently slimes badly and escapes.

The ore is shipped as "crude," or the solid or unaltered sulphides, or as "carbonates," i.e., the decomposed ore, consisting of oxides and carbonates of iron, lead and silver, the mass a reddish brown color, with more or less yellow material; those carbonates with a soft, velvety feel, assaying highest in silver. All material about these veins should be carefully assayed before being relegated to the waste dump, where good ore, unsuspected, has already been thrown, especially soft, iron-stained decomposed rock or vein matter.

GOLD—It might be well to be on the outlook for gold, remembering the good gold values found in the galena ores of the Monitor mine, which yield from \$2 to \$14 in gold per ton; one lot of 20 tons of crude ore assaying \$20 per ton in gold, while the carbonates average \$13, the smelter paying for all gold above \$22 or one-tenth of an ounce. The carbonates seldom are as high grade in silver as the unaltered, or crude ore in the vein, but in some mines this class of ore is very valuable.

When most of the veins are not wide, the richness of their ores greatly compensates, as may be seen from the lead and silver values as per smelter returns from a few of the mines, as:—

	ozs silver per ton.	per cent. lead.
Slocan Star ..	90 to 95	70 to 75
Reco	83 to 730	19 to 67
Goodenough ..	167 to 507	15 to 67
Noble Five....	62 to 543	30 to 75
Last Chance ..	135 to 238	35 to 78
Wonderful	113 to 133	70 to 76
Ruth	40 to 125	15 to 73
Monitor	142 to 367	32 to 57
Wellington....	125 to 328	10 to 55
Whitewater ..	72 to 326	10 to 65
Dardanelles ..	149 to 470	15 to 55
Enterprise	155 to 180	18 to 30
Two Friends ..	248 to 380	38 to 52
etc.	etc.	etc.

The other Slocan mines have ore of the

same character and high grade, as may be seen in the detailed accounts. The lowest values in the above indicate the lowest smelter returns on ore that is classed as carbonates. The average value of all the ore sold been given above.

ZINC:—In most of these veins the zinc blende carries a small silver value and is sorted or concentrated out of the ore, so that very little ore sent to the smelter has over 10 per cent. zinc limit. But in the Enterprise mine, on Ten Mile, the best silver assays are said to be got from the zinc blende, which is much more valuable than the galena. As is to be expected, small lots of very rich ore are mined, ore that will yield from 1,000 to 2000, ounces per ton, but the average figures already given will indicate the importance of these veins that are now being mined in both granite and stratified rocks of this district.

2. The veins of argentiferous tetrahedrite or grey copper and jamesonite and silver compound in a quartz gangue.

These veins can be seen in the granite exposure on the Best and Rambler mines, and in the stratified rocks on the London Hill property, from which very high grade ore has been shipped.

3. The dry ore veins on Springer and Lemon Creeks, in the granite, with a quartz gangue containing argentite, native silver, and gold.

These veins are now attracting much attention, as high assay returns have been secured as per smelter returns; sorted ore of this character from the Howard Fraction yielding 163 to 206 ounces of silver per ton, and \$16 to \$26 per ton in gold.

The Chapleau recently received the smelter returns of 4 tons of sorted ore, from which 3.6 ounces of gold and 94.7 ounces of silver per ton were returned, netting the owners \$102 per ton after deducting the freight and treatment charges.

4. The gold quartz veins in the southern part of the granite, such as those reported to be on the Alpine group.

The values and characteristics of the last three mentioned classes of vein will be better understood later on, as the work now begun yields results and information.

COSTS.

MINING—(a) The cost of driving tunnels and drifts varies from \$3 to \$9 per foot in stratified rocks, and from \$7 to \$10 in the granite.

(b) The cost of sinking shafts is from \$12 to \$20, but so far little work of this kind has been done.

(c) The cost of stoping cannot be ascertained, but the following table, compiled by Edmund B. Kirby, M.E., and given in a paper to the Colorado Scientific Society, December 3rd, 1894, from experience gained in Colorado, where nearly similar conditions and cost of labor, supplies, etc., obtain, may be of value:—

APPROXIMATE YIELD AND COST OF STOPPING PER TON OF ORE BROKEN.

Thickness of pay streak Calculated for ore when 1:1 cubic feet = 1 ton.	Tons per sq fathom of ore sheet.	Cost per ton.
A streak 4 inches wide yields	0.92	\$17.33
" 6 "	1.38	11.55
" 8 "	1.85	8.67
" 10 "	2.31	6.93
" 12 "	2.77	5.78
" 14 "	3.23	4.95

(d) For labor the average paid miners is \$3.50 for 10 hours; or \$3.00 for 8 hours; timber men, \$3.50 for 10 hours; shift bosses, \$4 to \$5 a day; blacksmiths, \$3.50 to \$4

per 10 hours; trammers and top men, \$2.50 to \$3 for 10 hours.

(e) For supplies, No. 1 giant powder costs about 18 to 22 cents a lb; No. 2, \$9 per 50 lb box; candles, \$7 a 40 lb box; cordwood, \$1.50 to \$2.50 at the mine; rough timber, \$11.50 to \$12.50 per M; drill steel, 16 cents a lb. The cost of food and other supplies is now very reasonable.

TRANSPORTATION—(a) The cost of packing down ore on horses in the summer time varies from \$5 to \$8.50 per ton to railroad. In the winter time, by rawhiding, \$2.50 to \$3.50 per ton.

(b) By wagons or sleighs \$1 to \$2.50 per ton.

(c) Cost of transportation from shipping centres to the smelters in the United States, from Sandon, \$7.50; from Slocan City, \$11.

TREATMENT—The treatment charges depend upon whether the ore is crude or carbonates and on the latter according to the percentage of lead. On the crude ore, or nearly pure galena, the smelter charges vary from \$15.50 to \$18 per ton; on the carbonates \$9 to \$15 per ton; the \$9 rate being given in one case where the lead did not exceed 20 per cent.

The smelters pay for 95 per cent. of the silver and 90 per cent. of lead, assay values, at the New York quotations at time of settlement.

For zinc, 50 cents is charged per unit—about 10 per cent. The duty on lead in the ore entering the United States is 3/4 of a cent per lb.

WESTERN AUSTRALIA.

THE BOOM THERE DESCRIBED AS A GREAT SWINDLE.

A FEW weeks ago we cited Western Australia, with its mismanagement of gold mines and its booming tricks as a warning to Canadian boomsters. We give below a letter written from Broad Arrow, West Australia, before the new year. The letter says:—

The comparative figures of the Western Australian Mining Company registrations for last August show a very striking decline, as compared with August, 1895, but it must be remembered that the mining market activity of the earlier period was very exceptional. For the month of August, 1895, the number of companies registered was sixty-eight, and the total capital £7,019,610. In August, 1896, the number was fifteen; total capital, £1,875,753.

But if we take the eight months ended at August of the present year and compare them with last year, we shall find that the registrations are more than £9,000,000 greater, the capital for 1895 being £19,229,215, and for 1896 no less than £28,829,126.

The total capital of registered mining companies in Western Australia is £74,176,925. The population of Western Australia is 120,000. The Registrar General's office supplies the following statistics of the gold declared for export from the colony for the last nine months:

GOLD EXPORT.

Month.	Ounces.	Dwt.	Gr.
January	16,350	0	11
February	17,922	5	21
March	11,084	17	5
April	16,772	12	14
May	22,266	1	6
June	27,933	14	0
July	16,258	8	19
August	29,516	19	22
September	35,301	6	15

Add to the 193,406 ounces already produced 100,000 ounces for the rest of the year, and we have, say 300,000 ounces,

valued at £1,200,000, as the returns for £75,000,000 of invested capital, 20 per cent. of which is working capital. An average of 50 per cent. of the working capital, or £7,500,000, has been expended and £1,200,000, or a little over 2 per cent. of the invested capital, has been returned. In consequence the London public has paid Western Australia an 8 per cent. dividend instead of receiving one of 20 per cent. from Western Australia, as was expected. Yet the speculators and boomers here cannot understand why London's confidence in Western Australia begins to flag. They utterly ignore the lists of assessments, and are eager to attribute the vacillation of Britain's capitalists to other causes.

There never was a mining region so prolific of calls and barren of dividends as West Australia. During October, calls aggregating £6 10s. were made and not a dividend declared. During the past year calls averaged £12 per month, dividends were 5 shillings per month, and the shares affected by each call and dividend averaged 110,000. London was thus £1,330,000 out and £27,500 in every month. Nevertheless Australians ascribe the diversion of English capital to South Africa to the reduction of miners' wages in the latter place. Wages could be wiped out in Western Australia, and still the country wouldn't pay. If rigid retrenchment were necessary the companies would be wiser to commence with their chief officials.

The salaries paid here are as exorbitant as those in South Africa. Take, for instance, the princely pay of managers in the employ of the Western Australian Exploring and Mining Corporation and the London and Globe Finance Corporation, the joint capital of which concerns is £4,000,000.

Salaries per annum.

Charles Kaufman (consulting engineer).....	£10,000
Jas. C. Dwyer (manager Paddington Consols).....	5,000
Jas. C. Dwyer (manager Reison's Reward Co).....	1,000
H. C. Callahan (manager Lake View Consols).....	5,000
Capt. Barney (manager Wealth of Nations).....	3,000
Jonathan Bray (manager Golden Crown).....	2,500
W. L. Webster (manager Golden Group).....	2,500
H. E. Richards (manager Golden Treasure).....	2,500
B. L. Harrington (manager Mainland Consols).....	2,500
Clyde Osborne (manager Wealth of Nations Ex).....	2,500

Miners receive £4 per week. The above companies employ 1,000 men. By reducing wages to £3 per week the corporations would save £50,000 per year, but by reducing salaries one-half they would save £20,000 without the expenses of a strike.

Manipulation is everywhere evident here. Vast expenditures mark every movement of companies. The roads are ground into powder by teams hauling machinery which will be put up on "mines" that have no ore.

South Africa in its worst aspects is more alluring to capital than this immensity of dark promises. Here, where no edible life exists, and no water that can be drunk without condensing, the reefs will not yield as many grains as South African reefs will yield pennyweights. Capital invested here without prudence now seeks not to recover what it lost, but to keep what it still has. A few months will prove this mining boom the biggest swindle of the century.

CORRESPONDENCE.

WE BRING MONEY IN.

Editor of THE CANADIAN MINER.

SIR,—Just a few lines to inform you that through the medium of your valuable paper 2 gold locations in North Frontenac have changed hands to Toronto parties and very fair prices have been obtained for the same.

In answer to a short description of mining locations at and near the village of Plevna, in a recent issue, I have received several letters from parties who were surprised that active mining operations were being carried on in a district wholly unknown (except to very few), requesting further information as to locations described in letter. I have no doubt but that several other locations will change hands in the near future. You have in your paper given to the mining men and the public in general, good reliable reports, and sound common sense to the would-be investor. The paper is a credit to the publishers and Canada at large. Wishing you every success with your journal,

I remain, yours truly,
ED. F. COXWELL, Prospector.

THE WEALTH NORTH OF QUINTE.

Editor of THE CANADIAN MINER.

SIR,—At last we are to have a movement made in the mining of one, at least, of our valuable galena locations. I refer to the well-known galena veins in Bedford township, county of Frontenac, 6 miles from Bedford station on the Kingston & Pembroke railway. This is a property owned by a man in New York state and has been idle for a number of years. An old shaft on this property (60 feet deep), contains a vein nearly 9 feet wide, with several other smaller veins on the property. I know of a party of Toronto men who are making arrangements to have a report made on this property with a view of purchasing it. If all is satisfactory they will commence mining as soon as the snow is gone. A ready sale can be made of this ore as it runs high in lead with about 6 ounces of silver to the ton. If this property is purchased and worked it will go a long way towards directing some of the vast amount of capital that is finding its way to the west, to our eastern section of Ontario.

It must be very gratifying to those who have for years spent time and money in prospecting in the counties of Hastings, Addington and Frontenac to read the glowing accounts in all our daily papers of the rich finds that are being made from time to time, or that have been made by owners and prospectors years ago, but who were disappointed and disheartened by professors and experts telling them that their work was all in vain, as no gold, or, in fact, any other very valuable mineral existed in paying quantities, and not even iron ore would be found in paying quantities in a lime-stone country, and if a vein was found walled in with lime-stone it would not be a vein or deposit worth working, and not worth spending a dollar upon. Many a lead have I passed as worthless while prospecting in Frontenac, because I believed the author of a so called valuable work on the "Minerals of Canada." Some of the best iron ore mines in Frontenac, on the Kingston and Pembroke Railway, which have produced thousands of tons of high grade ore, and are good for thousands more, are walled in with lime-stone. Then we were informed that hornblende rock was never known to carry gold. Again the "Professor" is wrong, as I can prove to the contrary, for I found a small amount of such rock going up well in gold and silver, specimens of which were sent by the Ontario Government to the World's Fair, Chicago, and I had the honor of collecting the

mineral specimens, making a collection of 18 different kinds in all, from the counties of Addington and Frontenac.

I understand that the "Stalker Gold Location" which was referred to in my former letter, (as a result of mention in your journal which is read and appreciated by the quiet and solid investors more than any journal in the country) is placed with a Toronto firm with a view of working the same. Reports, assays, etc., will be made in a few days, and if everything is satisfactory, work will be commenced early in spring. An offer has been made by a Toronto gentleman who knows the ore to put in a plant and run it for an interest in the mine. This should be good news to the people of Plevna village, as this would make the second mill within 5 miles of the village. And more will follow as soon as people come to know of this locality.

It is rumored that the Toronto Silver and Antimony Mining Company will shortly put in a plant to work their valuable property in the Township of Barrie, 7 miles from Plevna village. It is a pity to see such a valuable property lying idle. Assays made by Dewar & Son of this city gave over \$400 to the ton in silver, antimony, copper and lead. Just think of such a property being left idle and it within only a few miles of Toronto. Then again 7 miles west of this property is to be found one of the best, if not the best, properties of white mica in Ontario, with tons of splendid mica in sight; and it also is idle and has been for sometime. I understand that a party in New York is in communication with the owner with a view to purchase and work the mine. Samples of this mica were included in my collection, some of which would cut 12x16 in. Madoc is bound to have its "Boom" and it won't be long before old Frontenac will come to the "front in acts" and have her share of the good things which it richly deserves.

Yours truly,

ED. F. COXWELL,

Prospector.

TORONTO, Feb. 22nd.

HINTS AS TO MINING REGULATIONS.

By Mr. Fred. Rogers, D.C.L., Barrister.

BY request, we publish a letter addressed of Sault Ste. Marie to Mr. Blue, director of the Bureau of Mines, Toronto. The letter reads:

As solicitor for the Great Northern Mining, Exploration and Development Corporation of Ontario (Ltd.) I am brought into frequent contact and communication with prospectors all over this large district and it seems to me that it would be a good step if some provision were made for the registering of claims at the Sault. There is, apparently, a large tract of mining country west of the Sault, running north of Lake Superior—and large tracts north and east of the Sault, and it would be the most convenient place in which claims could be registered.

And furthermore it is the district town, and the other judicial and registration offices are all here, and the solicitors would find it more convenient to file the claims here than anywhere else in the district.

I would propose, therefore, that all mining claims within the District of Algoma (Eastern Algoma) be filed at Sault Ste. Marie.

In the District of Thunder Bay the claims could be filed at Port Arthur—the district seat of the district—and in the District on Rainy River they could be filed at Rat Portage—the district seat of that district, and in the District of Nipissing at Sudbury or North Bay, whichever town of the two was thought the most centrally located.

I feel sure that you will be desirous of get-

ting any information or suggestions which may be of assistance in framing a suitable set of mining regulations—and I beg to suggest that probably your Department could not do better than carefully consider the Indian land regulations with reference to mining lands which are already in force with reference to a large part of Algoma—the Indian townships and Indian portions of certain townships. On looking at the large map of the north shore of Lake Huron issued by your Department, you will notice that it shows the Indian lands in Algoma painted red.

You will notice that there is a large tract of Indian land north and northwest of the Sault (in the Goulais and Batchewaning districts) also that the large Garden River Reserve (the surrendered and unsurrendered lands therein) and some adjoining townships are Indian lands.

I enclose you a copy of the Indian regulations kindly given me by the Indian land agent here. There are probably a good many of the regulations which could very well be incorporated in the Ontario Mining Regulations. The whole of the regulations are worthy of a careful perusal at this time, when your department is considering what changes should be made in the Ontario mining law.

I call your attention particularly to section 4 (par. A), providing a sensible and easy way of staking out prospectors' claims, and to Par. 4, as to the filing of the claims. You will notice that if a prospector stakes out his claim in accordance with par. A, and if he files with the local Indian agent within 90 days the affidavit required by par. B, and if he pays the small fee of \$5, required by that paragraph, he can hold the claim for one year.

It may be of course that your attention may already have been called to the within regulations, but, if not, you will be glad, I know, to receive them.

May I make another suggestion? As it is likely there will be a good deal of exploring and prospecting done all over the townships north, east and west of the Sault, this coming season, would it not be well for your Department to print maps of the different townships, which could either be given to prospectors or sold at a nominal figure, just enough to cover the printing or lithographing.

It would be well perhaps, also, if the large map to which I have referred could be sold to prospectors at a lower price than the price now asked, which we think is one dollar. Every prospector should have one. The large map, to which I have referred, shows only the country west of the Sault as far as Point Mainainse on Lake Superior. As there is said to be a mineral country along the north shore of Lake Superior, all the way between the Sault and Port Arthur, would it not be well also to issue a map showing the country north of Lake Superior, west of Point Maimainse, or to make the map to which I have referred include that portion of country?

Yours faithfully,

FRED. ROGERS.

SAULT STE. MARIE.

Mining Industry of Denver, Col., says:—Everything points to a reduction in royalties and freight rates on low grade ores at Aspen. Only those who have mined very low grade material can fully appreciate the significance of a reduction of two or three dollars per ton. The one leaves the tribute miner in debt, while the other enables him not only to pay himself for his work, but frequently to employ a number of fellow workmen.

If you want to make money through gold mines, buy the Canadian Miner. Price 10 cents per number, or \$2 per annum.

The Canadian Miner.

ISSUED ONCE A WEEK

AND

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TWELVE MONTHS OF GOLD PRODUCTION.

THE Hon. Richard Harcourt, Provincial Treasurer, in his budget speech last week gave a little attention to the recent development of the gold fields of Ontario. He put little color in his painting—in fact he confined himself, perhaps too carefully, to a narration of what had been done. The gold production of the province last year is given at only \$121,848, but last year real effort in the way of gold mining was just beginning and the people took little interest in it until autumn, nor did it attract attention abroad until a few months ago. The stamp mills referred to by Mr. Harcourt, as already working or to be worked before long will have an average capacity of 180 stamps; the Deloro chemical treatment of mispickel ores will have a capacity equal to a forty-stamp mill. This would mean 220 stamps, without estimating the little stamp mills to be erected and the possibilities of rapid equipment which some of the later developments now undertaken may quickly convert into realization.

Well, 220 stamps at an average output of two tons per diem for each stamp and an average value of only \$12 per ton in gold yield—an average very far below the actual results so far—would mean \$1,584,000 in a year of 300 working days, after the whole outfit is in operation. It may be said, however, that most of this equipment will be in full operation before the 1st of April. The Foley twenty-stamp mill started on the 15th inst., the Saw Bill mill is being taken to the mines and will be in operation within a few weeks. The reduction works at Rat Portage will shortly be equipped for the reduction of concentrates, a large quantity of which has already accumulated, with plants for chlorination, cyanide treatment and electrical precipitation. The mines, in view of the estimate made in the Provincial Treasurer's statement as to the probable erection this year

of ninety-five more stamps, do not include some developments which have passed into the hands of English companies, some of which are preparing for a rapidity of development which has yet had no equal in Ontario. But without including the possible stamp mills these mines may require, but estimating the value of the ore treated by mills that will be in operation next summer, at a proper figure, we may say that it is not improbable that the next twelve months will show a production of \$1,500,000 of Ontario gold, and next winter the able Treasurer will find ample reason to venture on predictions for the following year that will deal with the gold production not by the hundred thousands of dollars but by millions.

Mr. Harcourt said:

"A word or two, Mr. Speaker, of a general character and I am done. It would seem, sir, and we all rejoice because of it, that we are on the eve of better times, that the long period of depression, widespread and severe, is about spent, and that returning prosperity is at hand. I do not wish to be understood even to suggest that certain very important events which happened in this Dominion last June of themselves led to this result. That kind of argument is to be heard much more frequently from hon. gentlemen opposite than from those who sit on the Speaker's right. We on this side of the House do not believe that prosperity can be summoned and grasped by the mere waving of a legislative wand. We do not believe in shortcuts to the millennium through devices of legislation. However this may be, sir, we all believe that the steady and prudent development of our mineral resources would certainly prolong and hold a period of prosperity should it come. We are no longer alone these days, though such was largely the case in the past, in believing that our mineral wealth is as varied and inexhaustible as it is rich. The work of development of the last year has attracted worldwide attention to our mineral fields. Everyone recognizes the fact that in the mines and mineral deposits of England reside the main sources of its industrial power. An Englishman thinks that by taking stock of the mineral resources and annual output and ratio of increase of the coal and iron raised in the kingdom he can best form a correct idea of the probable course and term of its greatness as a commercial and industrial nation. His commercial rivals admit the truth of his reasoning, and place in the schedule of England's assets her coal and iron as very important funds of national capital.

"Under the Ontario letters patent act twenty-nine mining companies were incorporated during last year. Only twenty-four of such companies were incorporated during the four preceding years. Our production of gold bullion has increased rapidly. In 1893 it was 1,695 ounces, worth \$32,960; in 1894 it was 2,022 ounces, worth \$32,776; in 1895 it was 3,030 ounces, worth \$50,281, and in 1896 it was 7,154 ounces, worth \$121,848. The product has been increased fourfold in amount and value in four years. Until the fall of 1895 only one mill of ten stamps was treating gold ores in this Province. Since then two mills of ten stamps each have been working regularly, and four others, with an aggregate of forty-five stamps, at intervals, on ores of mines in process of development. A mill of twenty stamps at the Foley mine, Seine

River, was expected to commence work last week, and during the present year there is a good prospect for at least five additional mills in the northwestern and northern parts of the Province being built and completed, with an aggregate capacity of ninety-five stamps. Besides these, a mill for treating refractory gold ores by an entirely new process is nearly completed in Hastings County, which will have a capacity of seventy-five tons per day, the equivalent of a forty stamp mill. I have been speaking only of mines in actual operation. Outside of these a great deal of development work has been done, which must soon lead to very important results."

INFORMATION FOR PRACTICAL MINERS.

A MINER writes from the Isle of Man inquiring about the prospects in Canada for himself and other Manx miners, who are discussing daily the new Canadian gold fields and the advisability of shifting themselves over to them. Another old country miner, at Ishpeming, Mich., writes much to the same effect, and says miners there get only \$1.25 per day. We suppose there are many who desire the same information asked by these correspondents, and for the benefit of British and foreign miners who may read our journal in the reading rooms or elsewhere, we shall try to give them some idea of conditions of life in the mining fields.

We would say that it is a serious responsibility to advise you what to do, as we do not know your circumstances sufficiently well. If you are old or middle-aged, and have no sons to start out in the world, be careful, very careful, about cutting loose from familiar associations and from people who will help you in work when you need it. If you have sons to give a chance to Canada affords a very good scope for them, and it is worth while to make a little sacrifice for their sakes.

We have few practical miners here. Our stalwart Canadian boys from the farm, swing the pick-axe with a freedom that does not allow four men to work in a drift where six Cornish miners could work. Our boys are unaccustomed to mining and need a more or less lengthy apprenticeship as it were, though we have no apprentices here in mining. An active, strong, intelligent miner, whether British, or German, or Swede, can, we think, readily obtain employment, and perhaps almost at once get a sort of sub-foremanship if his temper and quickness in adapting himself to the free way of the country are just right. In fact in many prospects and mines he may become an important foreman in a few months. Fifty per cent. at least of our miners should be men practically experienced, as you are. At present there are few such. The mining syndicates and companies prefer experienced miners.

Work is sometimes done on contract per ton. We take from our last issue an offer, in the interior of north-western Ontario, of contract work: On veins twelve to fifteen inches wide, \$4 (that is about 16s.), per ton; on veins two to three feet wide, \$1.50 (about 6s.), per ton;

on veins five and one-half feet wide, \$1.00 (about 4s.), per ton; the miner—hand-drilling—to furnish powder, caps, etc.

In north-western Ontario wages by the day are largely fixed by the rate at Rat Portage, a town over a thousand miles north-west of Toronto, and at the entrance to a south eastward and eastward stretch of navigation, extending some hundreds of miles through a small portion of the gold fields of that small portion of the gold region of the province of Ontario. The rate for ordinary miners at Rat Portage and in mines near by on the Lake of the Woods ranges from \$1.75 (about 7s.) per day and upwards, with board at the mines. Board at Rat Portage is \$3.50 to \$4 per week (14s. to 16s.), but miners can, where they can get a frame and especially a log shanty, live as comfortably on half as much. There are no extravagant demands such as are found in Johannesburg in South Africa. The sea-like lakes butt up against the region and provisions are not costly.

If you have a family you may bring them with you, when you come, or, at any rate, as soon as you have time to look out for quarters for them.

With a comfortable log cabin, or a frame building—more expensive to heat in winter—you can put up with pioneer life in the wilderness and have a good deal of happiness too. At present, at many of the mines, the situation is new, and men's quarters are provided, and separation from a family living in some village or hamlet some distance away is unavoidable for a time. But these mining camps soon grow into villages, with cheaply erected houses, and with a public free school and a church.

The cost of living is higher than in the cultivated and settled southern part of the province, or on the lake-board. But beef, pork, fruits and vegetables are not dear, and in house-keeping luxuries are obtainable at smaller cost than in England. The cost of provisions varies of course a good deal, according to the situation of the mining camps.

In the gold fields of south-eastern Ontario—Madoc and other points just a little north of Lake Ontario, and in the midst of a comparatively settled country, apples sell for a shilling to two shillings a bushel; peaches are cheap, either canned or fresh; grapes, which are sold at a halfpenny to a penny per pound in Toronto and which a thrifty housekeeper can utilize for preserves and jams, are produced in enormous abundance in southern Ontario, and cost just a little more in Madoc. Tomatoes are worth twenty to fifty cents, (10d. to 25d.), a bushel, and form excellent relishes for summer or in jarred form for the winter. Beef sells from four to six cents. Flour is much cheaper than in Britain. But the ores of this region contain other minerals than gold, and we do not expect the mines to develop so rapidly as five hundred or a thousand miles further west in the province.

About 200 miles north of Toronto is a nickel and gold field, partly developed, but cheap living is obtained here also, with a slightly

higher cost than in Hastings county. Sudbury is the town to be reached, as a mining centre.

On the extreme north of Lake Superior there is much gold, but the camps are yet so few that you need not bother about them before reaching this country.

Port Arthur, a civilized town, lying back of the splendid promontory of Thunder Cape on Lake Superior, and at the head of a bay which has been compared with that of Naples for beauty, is the gateway to the great gold fields of north-western Ontario. Around it the country is rich in gold, silver, iron and copper. Silver operations are to be carried on this spring. The cost of living for a family is small, for to this port steamers as large as great ocean steamers ply from the agricultural and fruit-growing country of the Lower Lakes.

The Canadian Pacific Railway will carry you to Bonheur, a little station in the wilderness, whence access is obtained to the rich and rapidly growing mining district of the Upper Seine, where there is much demand for practical miners.

Rat Portage, a civilized town of five or six thousand people, is at the north end of the Lake of the Woods—a large, many-armed body of water. It is over 300 miles west of Port Arthur by railway, and the many steamers plying on the lake furnish ready access to a very active gold mining region, immediately around, as well as to the Seine River gold fields, over two hundred miles, by steamer, further east. West of Port Arthur the cost of meat, vegetables and fruits is higher than at Port Arthur, but very much lower than in Great Britain. Wood is the fuel used for cooking and heating.

You should not come unless you are prepared to stand the hardy, rough life of the backwoods. You bid good-bye, in these mineral regions, to the cultivated lands you see in the old country; granitic, hornblende and other rocks rise around you in rugged precipices. A wonderful beauty of lake and river is everywhere in a profusion not known in Europe. The bush—the woods—is about you, and a primitive equality and kindness to mitigate the change from old surroundings. The heat in these northern parts of Ontario is sometimes oppressive by day in the summer, but the nights are nearly always comfortable. In the winter the weather is very cold, but the woods check the winds, and the sun is bright and the air bracing. Down in real mines the temperature is, of course, that of spring or autumn.

For a short time mosquitoes and flies are troublesome. But there are devices you may learn from the native Canadian for mitigating these nuisances.

Wild animals are not troublesome. Bears are not feared, nor wolves. The Indians are not a bad lot. They are kindly when properly treated, and a fill of a pipe goes a good way when you want their help.

There is very much work to be done in developing new "claims," which are numbered by the thousand. The gold hunter, also, has his chance of finding new veins, and selling the land he finds gold or silver ore on. He gets

the land for a trifle, by simple registration. Sometimes he sells it for a good sum. There are thousands of gold properties known, and many thousands more to be found, for the country is yet unexplored.

To reach the gold fields you can either use railways or steamers, or both. To reach Port Arthur, on Lake Superior, you can book to Toronto by rail or boat, take rail to Sarnia at the foot of Lake Huron or to Collingwood or Owen Sound on the Georgian Bay; or you may take rail through from Quebec or Montreal. It is well to take a ticket straight through to whatever destination you wish to reach, and not fool around Canadian cities. Sudbury, an important centre, is reached by rail from Montreal.

In British Columbia conditions are much like those of Ontario. Rossland is a small city in the mountains and right in the centre of a mining camp. The coast mines north of Victoria are primitive; the winter is wet and much like Cornwall or Liverpool. In the interior the winters are colder. The cost of living is higher than in Ontario. The ore is generally not "free milling," as in north-western Ontario, but the country is one of great promise. The distance from Halifax is over four thousand miles. Good miners there have excellent opportunities of making money.

NICKEL.

We note that prior to 1892 a reliable assayer and also a manufacturer of metallic nickel in the United States, who obtained their oxide from the Canadian Copper Co.'s product, found from an average sample of 18 tons of this oxide 0.25% of platinum. We also note that the Canadian Copper Co. are now erecting at Cleveland, Ohio, a large experimental electrolytic plant for treating their Bessemer matte, which averages about 43.5% copper, 40.0% nickel, 0.3% iron, 13.8% sulphur, 7 oz. silver, 0.1 to 0.2 oz. gold and 0.5 oz. platinum per ton, a total value of precious metals per ton of \$14 to \$17. The proceeds of these, with the copper, fully pay all cost from the mine to market. If however, we take the first quotation, that prior to 1892, and we are prepared to back up the reliability of it—we get from platinum alone: per ton of oxide 5 lbs. platinum = 60 oz. @ \$15 per oz. = \$900 per ton; per ton of matte 16% on low grade = 10 oz. @ \$15 = \$150 per ton; per ton of ore (average) platinum of value \$25 per ton; thus showing a much larger margin of profit. Still mining nickel-copper ore does not pay and the *Mail-Empire* allows itself to be used as a medium to choke off capital from being invested in the nickel industry in Northern Ontario.

There is, in the bulk of the nickel ores of the Sudbury district, in by-products alone, a good margin of profit and we would urge capital to look this way; there never was a better outlook for nickel as evidenced by the extraordinary advance in the price of the French Nickel Co.'s stock during the past two months.

NOTES AND COMMENTS.

INVESTORS in mines, and workers in mines, will find valuable information in regard to cost of work in the Slocan by reading the extracts given in this number from the report of the Provincial Mineralogist of British Columbia.

Mr. Alan Sullivan, C.E., M.E. of Rat Portage is in the city. Mr. Sullivan is regarded as a most careful man in his work and his statements. His information as to the season's probable development in the Lake of the Woods country, is exceedingly encouraging. The probable erection of stamp-mills around that lake and in the great valley eastward that is tributary to it, will exceed the most sanguine expectations of people in eastern Ontario.

A FEW weeks ago we called public attention to the great benefit to the public that would follow the re-introduction of fractional paper currency. Our enterprising contemporaries the *World* and the *News*, of this city, at once took the matter up and gave it greater publicity. We hope the results of the discussion will be that the fractional currency will be restored in a manner that will make "shinplasters" readily obtainable in every part of the country, both in towns and rural communities.

THE pushing of the James Bay railway, via Parry Sound to Sudbury, is one of the most imperative of railway projects in which Toronto is concerned. Water power is abundant and perhaps electricity could be called into service in operating much of the road. But the road should be rushed through this year if possible—that is from a Toronto point of view—which will be obvious to anyone who looks at recent and contemplated railway developments.

THE speech of Mr. Andrew Patullo, M.P.P., on the mineral and other resources of Ontario, in moving the address to the Crown in the Ontario Legislature, would go down to the future as amongst the classic literature of Ontario were its subject matter other than what it had to be, a sizing up of the immediate opportunities and necessities of a new industry. It, however, will be long remembered by mining men. It brought, however, some trouble. Within a day or two the member for North Oxford was loaded down with mining company prospectuses, and various other things, including nearly 20 pages of foolscap in the way of advice as to the policy the Government should adopt on mining. But there is little worthy achievement but entails trouble.

THE prospect of the nickel industry receiving a great forward impulse in the Sudbury district is very bright, now that European countries are contemplating adopting the metal in manufacture of cannon as well as armor plate. The deposits found in a great eastern and western belt in that district, are, it is well known, the greatest in the world. Their full development may need government aid to smelters, especially where the smaller deposits and the smaller operators are concerned. Large mines can afford smelters of their own. The Copper Cliff mine is paying a very large profit, and it is said employs about 700 hands. There are several other developments said to be almost equally promising. But it will be well if not a few companies, but a good many people have their share in the profits to be derived from this industry, and we want the smelters in Canada.

To enquirers in regard to investments in

mining companies, we wish to offer a few words of apology. The number of companies formed is several hundred. The quality of their prospects and degree of development made varies greatly and offers a chance in many cases of misleading the public. The financial organization of many companies appears to be defective. The methods adopted do not exclude great possibilities of failure. It would be unjust to judge in many instances without very full examination, and full information is but slowly to be obtained. We are making inquiries about several of the older and of the newer companies, and hope later to be able to give enquirers some of the results. There are several companies which would do well to remodel themselves, and this can sometimes be aided by seeking the advice of practical company managers of repute for ability and probity. We have too many "greenhorns" at the company-making business.

CANADA, tired at last by the years of nasty enforcement of the Alien Labor law is likely to turn on our American neighbors, and inflict the disagreeable penalty of a Canadian alien law. It will bear hard on many Americans living on our frontiers and the far greater number that come to our inland towns and cities. It will strike hard at some railway men imported from the other side, and at the hundreds who come here to some of our interior towns. In Rossland it will be felt, and in the gold districts all over Ontario and British Columbia it may affect thousands. American miners who wish to come to Canada, should pack up and come just as quickly as they can. The proposed enactment of the law is hailed with acclaim from one end of Canada to the other. The alien law of the U.S. was not meant at first to apply to Canadians, but selfishness and littleness have done their work, and with some degree of estrangement of two peoples who should be friends and kindly neighbors.

DR. SELWYN, at one time officially prominent in Canadian geological circles, is inadverted upon very seriously by several of our contemporaries, and justly. We have reason to believe that his official position, combined with his "essentially agricultural" nature—(well, we doubt his ability to have ever made a good farmer), delayed the development of the Port Arthur silver region at a time when capital and enterprise might have made it one of the most celebrated regions in the world. He didn't know, of course, and his official position gave him a prestige that affected Canadians, few of whom then knew anything about mining, and the damper worked. The damper is now superannuated, and lies as a lesson to people thrust into positions of great responsibility where applied science is concerned. We hope the example will not be overlooked. We do not care to discuss Dr. Selwyn: we don't know enough about palæontology to describe him accurately.

THE mining company applying for a charter under the name of the "West Saw Bill" Mining Company have withdrawn the name in compliance with the request formulated by the solicitor of the famous Saw-Bill Mining Co. We are not sure that Saw Bill Lake is too small to have a north, south, east and west Saw-Bill Company. Mr. Kittson, the secretary of the Saw-Bill Company writes that "there are other valuable properties in the district." A mine at Kingston, and a mine at Hamilton, might properly be distinguished by calling the former East Ontario

Lake Co., and the latter, the West Ontario Lake Company. The general effect would be to increase the fame of the lake as a mining region. But Saw-Bill is not a pretty name, and notwithstanding probable dividends, the West Saw Bill Company may get a better name, without intruding on the name of the original and famous Saw-Bill mine. And the lake is small, even if there are scores of millions of dollars just around it.

PERSONAL.

Mr. Ross, the Toronto representative of the Canadian Rand Drill Co., is still confined to his room at the Walker House, as the result of a severe strain sustained in erecting some drilling plant. He expects to be on his feet again in the course of a few days.

AROUND THE CITY.

Mr. J. W. CHZESEWORTH, mining broker of this city, has sold two promising properties on the Lake of the Woods, a little north of the Sultana. The lots are 184 and 185E, Haycock township, the latter a large property. Mr. C. C. Robinson has purchased the properties as acting solicitor for a mining company to be known as the Mandrill.

THE Crystal Gold Mining Co., operating in the Wahnapiatae lake district, have been engaged for some few days past in hauling in their 10 stamp mill and other plant. On Wednesday they placed an order with the Canadian Rand Drill Co. of Toronto for a complete hoisting and pumping plant to be shipped immediately. Mr. Hardman, the well known mining engineer, is acting in a consulting capacity for the Crystal people.

THE Golden Gate Mining and Development Co., of the Lake of the Woods, has purchased two large properties immediately south of 20SP.—known as the Golden Gate mine. They are among the two largest locations in the district, embracing as they do, 316 acres. Ten gold-bearing veins have already been discovered, and free gold can be taken off the surface at different points on the property. Surface assays average about \$16. This is considered one of the best properties in the district.

INQUIRIES made of Messrs. Lownsbrough & Co. as to the Colorado Company, which guaranteed one per cent. per month from time of purchase to buyers of stock paying a large advance on ordinary prices of the stock, resulted in the information that Mr. Lyman, whose name was prominently connected with the company, had gone to Europe on business; that his address there was not known to Messrs. Lownsbrough, nor at what date he would return, but that the books were at the headquarters of the company in Rochester, where information in regard to anything of interest to shareholders might be obtained. The address of the Secretary is Charles A. Keeler, Colorado Gold Mining and Development Co., Chambers of Commerce, Rochester, N.Y.

COMPANY NOTES.

PROSPECTUSES are nearly always sanguine, and many endeavor to enlist the support of the public by extensive and somewhat vague allusions to properties near by that are famous. We can almost acquit the Germania Gold Mining Co. of anything like this; their case is stated briefly and to the point, and the report of a known expert, E. W. Liljegrans, ex-superintendent of the Le Roi Mining Co. given. The two properties purchased are the Electa and the Chief Seattle, adjoining, each of 52 acres, with, on the Electa, a shaft sunk at the

time of the expert's first report (Nov. 14th) to a depth of 32 feet, and a crosscut on the other claim. The mines are on the north mineral belt of the Trail Creek mining field, the same belt that includes the Le Roi, War Eagle, Iron Mask and Centre Star, and are $3\frac{1}{2}$ miles from Rossland, $2\frac{1}{2}$ from the Le Roi, where down grade connection is made with the Trail smelter, while the proposed line of the Crow's Nest Pass R.R. passes within a few feet of the properties. The vein has 20 feet width on surface and is well defined and half a mile of it traced, and increases with depth. At 30 feet the hanging wall only was in sight. 60 feet was reached towards the end of January and in good ore. Surface assays in the Electa showed \$5.60 per ton, and \$30 at 32 feet. Development indications, we judge from expert's reports, are favorable to making a good mine. The board of directors embraces several of the most substantial, trustworthy and careful of Waterloo county people. Wm. Roos of Randall & Roos, Berlin, is president; Dr. H. G. Lackner, Berlin, vice president, and Jno. R. Eden, secretary. The capitalization is 1,000,000 shares of \$1.00 per share, non-assessable. The treasury stock for development is a quarter of the sum.

NOTICES.

A FEW days ago we visited the works in Toronto of the Metallic Roofing Co. of Canada. We were surprised at the excellence of the work produced. The office of the company is a frame one, but seems from a front view to be built of brick with stone foundation, so perfect is the fire-proof steel wall. The roof is of metallic plates and gives the appearance of being tile clad. At the rear of this building steel clap boarding covers a part of the exterior. Within the office steel ceilings and steel lathing and steel walls are used. The whole inside and out could readily be taken apart and put together. The material is very light, yet the building offers complete protection from winter winds as well as from fire. Inquiries as to cost of the different manufactures in use proved that buildings covered with metallic siding and roofing can be erected at a lower first cost than ordinary frame buildings, besides being better able to resist fire than brick structures. In fact, we have no hesitation in recommending these manufactures to mining and lumbering firms, as well as to people who wish to erect handsome buildings at a low cost. The part of the Electric Light Company's buildings not destroyed by the fire a few weeks ago was the part clad with metallic siding and roofing. Of late a number of good structures in Toronto have adopted this covering not only for fire protection and economy but for appearance.

THE PETTEWAWA COAL.

MR. PARKER WILLIAMS of Pembroke, who was brought up amongst the coal fields of Wales, and is therefore competent to speak with authority with regard to coal, was much interested by the report of the discovery by Mr. M. Millar of coal deposits in Pettawawa township, given in last *Observer*. Mr. Williams drove out to the home of Mr. Millar, and that gentleman showed him samples of the coal from the deposits which he said he had discovered; these samples Mr. Williams unhesitatingly pronounced to be coal and good coal too. He brought samples of the coal home, and burned it partially together with other samples procured from dealers in town, and no perceptible difference in the coals could be noticed after they had cooled.—*Observer*.

In replying to Advertisements in this paper, mention The Canadian Miner.

ACTIVITY AT LAKE OF THE WOODS.

RAPID DEVELOPMENT THIS YEAR.—SOMETHING ABOUT STAMP MILLS.—A RICH GOLD FIELD.

MR. ALAN SULLIVAN, C.E., M.E., of Rat Portage, is closely identified with several important mining operations in the Lake of the Woods gold fields, and is more competent to speak of the many operations and prospects in that district than many people interested in the mines of that region. He is in the city and has been interviewed by THE CANADIAN MINER.

Mr. Sullivan has a very high opinion of the region and its neighborhood, which he believes, in common with all who are at all familiar with the country, will be very shortly the scene of great investment and great mining activity.

The ore, which is free-milling, is remarkably so. Only a trace of silver has been found. Sometimes there are slight traces of galena. The Mikado mine carries bismuthite in considerable quantities, but that is the single exception. The mineral is worth £50 a ton in England.

Mr. Sullivan is connected with the reduction works at Rat Portage. In reply to questions about the relative adaptation of the chlorination process and the cyanide process to the reduction of the concentrates of the Lake of the Woods ores, he said the cyanide process was the best and cheapest for nearly all of them. The works are adding a chlorination plant, a cyanide plant and a plant for electrical precipitation. The larger mines, when sufficient development has taken place, and sufficient ore is regularly mined to keep a mill fully going, naturally erect plants for treating their own ores. But there are many properties continually reaching the stage when they produce considerable ore, yet not sufficient for the time to justify the erection of stamp mills and other reduction plants. For these, until they reach further development, the Rat Portage Reduction Works is doing good work.

Regarding the rich strike at the Cornucopia, Mr. S. did not feel at liberty to give the returns of the assays, but said he knew the average to be the highest yet reached in the district.

As to mines or developments approaching that character around the Lake of the Woods he said the rapidity with which work is being done or being prepared for this season is remarkable. Several properties that had recently been taken over by English or other capitalists are to be pushed at once to a depth of 300 or 400 feet, and 22 or 23, it might safely be said, will reach a depth of 100 feet or over this year, with more or less side drifting.

As to stamp mills, there are the Dominion Reduction Works with 20 stamps, the Sultana with 10, and 10 to be added, the Gold Hill with 10, besides other stamps.

The Cornucopia are to put in 20 stamps, the Makado, 20, the Scramble mines, 20; and several others are not unlikely to have their mills up before New Year. Gold Coin is contemplating putting up 10 stamps, Mascot, 10, Kirby, in the Manitou, 10, the Regina people at the Standard mine, 10. "You may safely say that before Dec. 31st there will be 100 stamps besides those now up—all within 100 miles of Rat Portage."

Then, of course, there are now a number in the Seine River district and there will be many more erected this season.

The Manitou country east of Lake of the Woods, Mr. Sullivan expresses a very high opinion of. Contact veins and true fissures abound. The country is rougher than around the western Shoal lake, where notoriously rich veins are now known. The roughness admits of tunnelling, and while sinking shafts of say 5 feet by 7 feet, costs about \$18 a foot, the tunnelling costs only \$10.

ONTARIO NEWS.

Lake of the Woods.

(Special Correspondence from Rat Portage.)

Mr. Alan Sullivan, of the firm of R. H. Ahn & Co., has left for the east, where he will visit Toronto, Montreal, New York and Quebec, from all of which places the firm have had inquiries in regard to mining properties.

Messrs. Boon & Logan are here in the interests of a syndicate of Toronto gentlemen who have an option on a promising piece of property near Rossland. They have already got their party together, and will begin development at once.

One of the best known commercial houses of New York lately bought two mining locations in the Lake of the Woods district from a well-known brokerage concern, for the sum of \$10,000. Development on the properties turned out so satisfactorily that the brokers in their turn have secured from the buyers an option on the property for the sum of \$20,000.

Mr. R. H. Ahn has received applications for large blocks of property from one of the best known South African mining companies. The very satisfactory development of properties in the Lake of the Woods district is tending to turn the attention of mining capitalists from South Africa to that district. The great difficulties experienced there in regard to water and transportation, do not exist here. If preliminary work turns out satisfactorily, and there is every indication of it doing so, we may look for development on a much larger scale than anything done here up to this date.—A.J.P.

A Toronto firm has made preparations to erect a block at Rat Portage, costing \$60,000.

Within a few days, if report is true, Rat Portage and the gold fields will be the scene of operations of a gigantic syndicate of English capital, whereby several of the mining properties will come under their control; \$2,500,000 is said to be the figure at which the properties will be purchased. The fact is that English and American capitalists have been quietly looking over the ground for some time, and have decided that the Lake of the Woods and Rainy River gold fields are the richest in the world. This deal will likely be followed up by others, which will give an impetus to mining in this district that will throw any former gold fields in the shade.—*Rat Portage News*.

* * *

Sudbury.

(From the Sudbury News.)

The *News* has been shown samples from a new claim in Wahnapiatae, of which Mr. Downing controls half interest. Assay shows \$24.80 gold and 36 cents silver per ton.

Mr. H. F. Downing, foreman for Mr. D. O'Connor of the Comstock mine, reports a 70-foot shaft, width of vein 3 feet, and improving in richness. The force at work will be doubled in a short time.

Mr. Jno. D. McDonald, the patentee of this smelter process, has gone to the Seine River country to examine and develop properties for American and Canadian capitalists. He will be absent about two months.

Mr. T. Pickard has men and teams at work transporting the Crystal Gold Mining Co.'s stamp mill to Wahnapiatae. Mr. Rinaldo McConnell, the manager, says that in a short time they will be turning out gold

bricks at the Crystal. That he is one of our busiest and most persistent mining men is shown by the plucky manner in which he stuck to the Crystal in the face of difficult and discouraging features, and we feel sure that it is the hope of everybody that he may be recouped beyond his expectations. He is also interested in the McDonald smelter process, one of which we trust will be a Sudbury industry before 1897 is at a close. It is sufficient to say, at present, that everything looks favorable towards the establishment of a custom smelter at this point.

CHELMSFORD.

Dissatisfaction has been felt of late by the owners of land in the vicinity of the Gordon coal mine, at the slowness of development, and the secrecy attached to it. There are many who candidly believe that the present promoters have an object in view, that is by keeping quiet and slowly developing, they will be better enabled to secure the adjoining lands. This state of affairs has led to the formation of a company for the purpose of developing all lands in that locality, and the members of it are the land owners surrounding the mine. They are determined to find out for themselves the extent of the deposit. The second meeting was held in the Algoma House on Saturday evening at 8 p.m. Among the members present were Dr. Schumann, G. Hedley, G. Irwin, Jas. Moore, C. Collins, P. O'Donnell, and A. King. As the meeting was private the result of their deliberations is not known, but to use the words of one of its members, "Everything was satisfactorily arranged, and Dr. Schumann will put up sufficient cash to put the company in working order and commence development." As this company holds in its possession upwards of 1,500 acres in the supposed centre of the coal field, and as its members are full of life and energy we expect soon it will be our pleasure to announce to the public the finding of coal in abundance.

It is reported that Mr. L. W. Hart, formerly of the Russell House at Sudbury, has secured a rich gold location near Peninsula Harbor. Mr. R. W. DeMorest has been engaged to do the surveying.

The Citizens Gold and Coal Mining Co. of Sudbury Ltd., is selling shares for a short time at 10 cents per share. The Company has a diamond drill at work on a coal property in Fairbank Township.

We are informed on good authority, says the *Sudbury Journal*, that a certain Toronto man has a blanket application on half of one of the townships in the Wahnapietae country. This is one of the evils which we hope the Government will remedy at this session.

A public meeting was held at Sudbury last week, to consider the question of sending delegates to join those of Parry Sound and Toronto, to interview the Ontario Government with regard to assisting the building of the Toronto and James' Bay Railway via Parry Sound and Sudbury.

The Sudbury Coal Mining Co. are sinking a shaft at the Fairbank mine, and will attain a depth of 50 feet by the 1st of March. The reports from the mine are good, and to judge by the confident smiles of those interested, if they have not reached the bed they are very close to it. It is reported that they have passed through a layer of coal three feet thick.

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Seine River.

The *Rainy River Journal* reports four enormously rich finds of gold within a few

miles of the village of Mines Centre, on the lower Seine.

Recent discoveries at Clearwater Lake and Moose Lake show up well and the owners are preparing to develop.

The Lake Harold is one of the best known properties in this region, as work has now gone on for two years and gold bricks to the value of \$6,900 have been taken out of development ore. A 5-stamp mill has been in operation heretofore, and 5 more stamps will be taken in this winter. Supplies are now all in and the necessary hoisting and compressed air machinery is in place.

Men of large capital are interested in the Rainy River and Lake of the Woods districts. Sir Roderick Cameron and his friends are developing a mine on Shoal Lake. Ex-Governor Flower, of New York, a multi-millionaire, is taking a hand, and on a property which he has purchased, it is said he will erect a 100-stamp mill. The dyke will be opened as rapidly as possible to supply the big mill with ore. The vein is several hundred feet in width.

Another mine which is being developed is the Kabiskong, which is believed to have a portion of the Hammond dyke and also another rich vein. About 20 men are now at work putting up camps and preparing for next season's operations. They are on location 361x. On location 336n the Wampum Gold Mining Company, of Toronto, are at work taking in development machinery. The Island Falls property has been partly developed, and preparations are made for more extended work in the spring.

A syndicate comprising Canadian, American and English capitalists has about completed negotiations for the purchase of a portion of the great Hammond-Folger gold dyke near the famous Saw Bill district. The portion in question is about 200 acres in extent, and is about 30 miles distant from Bonheur Station, on the C.P.R. The price to be paid is about an eighth of a million of dollars.—*Kingston Whig*.

The Ferguson mine has a small 3-stamp mill on their properties, which will be in running order by the first of next week. It will be used to thoroughly test the ores taken from numerous shafts and leads with a view to ascertain ore value, and will probably be succeeded by a 40-stamp mill on the opening of navigation. The new manager, Mr. G. Newby Varty, is well satisfied with the property, but proposes to be sure of what is needed first before putting in machinery, so that no costly experiments will be recorded as failures.

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Around Madoc.

A company is being formed to open a mining exchange in Madoc village, to assist in the placing of the mines of that section before the public. Agencies for the leading Mining Development Companies of the province will be secured, and the buying and selling of mineral properties throughout that district will be the business of the company.

The sale by public auction of the hematite iron ore under the county road, was held by Madoc township on Saturday last in this village, says the *Madoc Review*. The bidding was spirited for a time, but the highest price that could be obtained was only 50 cts. per ton. This was not considered sufficient by Reeve Allen and the sale was withdrawn. Mr. W. S. Volume was the highest bidder. The township council has decided to now offer the ore for sale by tender.

The *Kingston News* says: The Bay of Quinte Railway Company have a charter from the Do-

minion Government for the extension of their road north from Tweed, through Actinolite, Queensboro, and Bannockburn, where it will when built, tap the C.O.R. Bannockburn is right in the heart of the mining operations, but the company does not want to make it a terminal point. The railway will be pushed through Haliburton county into Nipissing district tapping the new Ottawa and Parry Sound railway, and terminating at either North Bay or Sudbury, passing through the heart of the finest timber limits in Ontario, and through the heart of the richest mineral sections in the province.

Mr. Robt. Soles, of Cannifton road, who is well-known in the city and county as a hunter, trapper, and ginseng digger, returned last week from the northern part of this and the adjoining counties. In the course of his wanderings he makes a point of picking up any specimens of rocks and minerals which attract his attention. While travelling through the township of Miller, in the back end of Frontenac county, he stopped at a farm house and was shown specimens of dark mineral which had every appearance of coal. A prospector named Purvis, from Perth, to whom he showed the specimen, pronounced it to be coal. The specimens were ploughed up in the loamy soil of the farm and Mr. Soles showed them, with several other specimens which he had to those present at Saturday night's meeting.—*Belleville Sun*.

The *Hastings Review* of Madoc says:—The big English company at Deloro (only 8 or 9 miles from Madoc), is a fair sample of the kind of people we want in the Madoc district. Unlimited capital, unlimited energy in the most extensive development of their property, and no "blow" about their operations. We understand they have obtained very satisfactory results from their experiments to discover a cheap mode of treating mispickel ores. The gold obtained is said to exceed \$20 to the ton, and the amount of arsenic obtained is in proportions that have hitherto not been approached at any gold mines in the world.

The Craig Mine, situated a few miles east of Bannockburn, was secured under option a few months ago by a Toronto company, of which Mr. Currie, County Attorney, is the head. A force of men have been at work for some time sinking a development shaft, and if the reports that have reached us within the past few days are true of the exceedingly rich finds of free milling ore, the company will close the option and secure the property at the price fixed, \$12,000, and they will have a snap. The present owners are Messrs. Peter Vankleek, half interest; James Maitland, Col. James Brown and City Clerk Robertson of Belleville, the balance.

The old Richardson hill, at Eldorado, where gold was discovered in Madoc in '66, is again under operation. Another Toronto company, with Mr. John Lambe at its head, has secured possession and will make an effort to prove that all the gold of the Richardson hill was not contained in that extraordinary rich "pocket" that created so much excitement when first discovered. Mr. Lamb and his mining engineer, Mr. W. A. McNaughton, arrived at Eldorado last week and commenced work. We understand their property includes the 15-stamp mill at Bannockburn.

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Rainy River.

The Security Gold Mines Development Co. is the first Development Co. organized in the Rainy Lake country. It purposes operating there and up the Seine.

There is between three and four feet of snow

and yet in spite of it, camps are being built, and supplies packed to properties by men on snowshoes. It is getting to be a wild hurrah in these gold fields to-day, and when the spring opens up, the biggest mining stampede on earth will take place right here in this howling wilderness.—*Journal*.

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Thunder Bay.

It is said that gold has been discovered in the township of Macgregor. James Murphy, of Fort William, has some men at work on a quartz vein, assays of which have gone \$2, \$4 and \$40 per ton.

The Port Arthur *Herald* says the district immediately adjoining the town will be industriously prospected this season. An abandoned gold mine, about 12 miles from Port Arthur, is to be re-opened. The former assays of this mine ranged from \$37 to \$137.

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Parry Sound.

A meeting of the Directors of the McGown Gold Mining Co. was held in the Court House last week, says the Parry Sound *North Star*. The quartz that has been taken out up to the present time continues to give a very satisfactory showing of gold, and in addition to this, a recent assay has shown \$80 to the ton in copper ore.

Letters of incorporation will be issued immediately after February 22nd, after the development has been made by the purchasing company and before any stock has been put on the market, so that the fullest information can be furnished before any sale of stock will take place.

About 3,000 lbs. of dynamite has been purchased by the Company and will arrive at the mine some day this week. The company have taken the precaution to buy sufficient dynamite to supply local prospectors in addition to what will be used at their own mine. The men at work have already sunk the shaft about 9 feet and expect about 25 feet will be reached by the 1st of March.

Mr. Thos. Wilcox, of Foley, reports that work on the Wilcox Mine in Cowper township is progressing favorably. Although the owners of the mine only expected to get copper when they began operations, they have found an excellent showing of gold.

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Eastern Algoma.

(From the Algoma *Advocate*, Thessalon.)

Our own neighborhood can boast of as rich showing of mineral deposits as any in British Columbia, but we have never been able to direct the current of capital in this direction, and Central Algoma can boast of but little of those sinews of war without which it is impossible to develop a mining claim. There are hundreds of claims between Sudbury and Sault Ste. Marie that only want capital to develop, to prove them as rich as those in the West, but west of Sudbury we here have had scarcely a dollar invested in developing locations which have given a good showing of being valuable. English and American capital fight shy of us, from what reason we know not, and as we do not possess the wherewithal, our mines have to remain undeveloped and our riches buried and hidden in the fastnesses of our hills and vales. Prospects that have been made in the neighborhood, outside of the Ophir Mine, have yielded ores that have assayed away up in the hundreds of dollars to the ton, while almost any of the poorest lodes discovered yield four or five dollars to the ton, of gold. The ore here is, to a great extent, free-milling, and the cost of smelting is not to be reckoned as far as extracting the free ore is concerned. There appears a tendency lately to take up and prospect our local

mines for which if a reasonable amount of capital for development purposes was forthcoming, there is not the slightest doubt that a rich harvest would be reaped. Until some outside capital is brought into the district for the purpose of proving our mines they will certainly remain as they are; the people of this country are not in a position to extract the wealth from the rocks, and though millions may be hidden in our midst yet for lack of a few thousand dollars of capital to develop, they remain a sealed book. We have no desire to boom the mineral interests of this district, but we have full confidence in the existence of vast mineral wealth in the neighborhood, and feel certain that if properly developed our district will equal if not excel the famed western region. Our endeavor is to let it be known that we have in easy reach resources that only need to be brought to light to be appreciated. It has been said that if our mineral ranges were situated in the west they would bring untold wealth, but being so easily accessible to the older parts of the Dominion their value is not appreciated.

Frank Marks has had instructions from capitalists in the east to examine certain mining properties.

Assays from some of the gold locations near here have shown upwards of \$125 to the ton at the surface.

The mine in McMahan, owned by several of our townsmen, is said to pass assay from \$14 to \$700 to the ton.

Frank Marks sent away a large lump of ore from the Great Northern Mining Co.'s mine in Wells for a mill test.

A showing of coal or something like it has been discovered near Ansonia, and a test is to be made of the substance.

The Mississauga Gold Mining Co. are getting ready to go work in the spring, and a considerable portion of the stock placed on the market is spoken for.

T. A. Strain brought in some fine specimens of gold-bearing quartz found in the neighborhood of Spanish River which look very promising. Mr. Strain has secured an interest in the mine, and will commence developing at once.

J. J. Huston has a fine sample of ore from his mine in Montgomery Township. This block will weigh nearly 100 lbs., and will mill fully 25 per cent. of copper. This ore comes from one of the largest deposits of ore in the country.

Mr. Dobie is about to sell his mineral property in Rose to a Toronto syndicate. The vein is a very extensive one, being several hundred feet wide in places, and assays show gold, copper and silver amounting to \$32 to the ton.

(From the Algoma *Courier*, Sault Ste Marie.)

The Great Northern Mining Company have secured two valuable iron claims, one, of red hematite and one of specular ore, the latter going 64 per cent. of metallic iron. The intention is to place these on the English market after they have been developed.

The Canadian Pacific Gold Mining Company of Rossland and Sault Ste Marie, issue their prospectus this week and will proceed at once to place some of their treasury stock on the market. Their claim, the Riverside, adjoins the Pug and is a most promising property.

Mr. W.H. Wylie, M.E., the resident engineer of the Great Northern Mining Company, left Toronto on Sunday and went to Wahnapietoe to report on a gold claim belonging to the company. As soon as this is done, he will come on to the Sault and will take charge of the Company's development work. His first visit

will be paid to the Northern Light in Aweres, which is considered a very promising one.

Mr. Wylie, the resident engineer of the Great Northern Mining Company, arrived on Thursday night and will proceed at once to inspect the properties of the company in this neighborhood. His assaying outfit is on its way from Chicago and next week he will be in shape for business.

Frank Marks is doing big work at Mississauga. On No. 1 vein he is down 25 feet through solid ore seven feet wide. No. 2 has been crosscut and is 20 feet wide. Work was delayed last week by the burning of the boarding house by which the men lost everything but what they stood in.

.

Chips.

MANGANESE steel casting for the wearing parts of ore crushing and rock treating machinery is coming into as general use here in Canada as it is in other countries. Hadfield's manganese steel is being carried in stock by G. H. Weaver & Co. of Montreal, and the latest stamp mills will be fitted with dies, shoes and cams of this material.

BRITISH COLUMBIA.

Trail Creek.

The C.P.R. expects to have its daily steamer service between Trail and Arrowhead, in operation by April 1st. A fast steamer for passengers, mail and express is to be built at once, and a sleeper will be run on each train between Arrowhead and Vancouver.

Despite the contention as to title, railroad lots seem to be in good, steady demand now, says the *Rossland Miner*. Seven were sold yesterday for an aggregate of \$4,500, and with those sold on the previous day, amounting to \$9,700, this makes a total of \$14,200 received for lots during the first two days of the week.

The Rossland Board of Trade, which has just been successfully organized, says the *Rossland Mining Review*, should operate beneficially to the best interests of the mining industry in this district and throughout the province, as reliable information and statistics affecting the mines will be collected and disseminated by the organization, which has as its head men of energy and experience.

W. R. Rust, of Tacoma, is experimenting with low grade ores near Rossland. He believes that by a system of water concentration the values can be saved. The result of concentrating such ore would be to reduce the quantity to be shipped by seven, and enhance its value in the same proportion. Thus, \$10 ore would make a \$60 to \$70 concentrate, and freight and smelter charges would only have to be paid on one ton instead of seven.

Mr. Jno. M. Burke, of Rossland on his return home from eastern Canada was interviewed by a reporter of the *Record*. The reporter remarked: "We hear that you have formed a very strong company, while away, for the purpose of mining and reducing ores?" "Yes, one of the strongest that has ever come west, I think. In a few days I will give you their names and then the public can judge for themselves. They are known from the Atlantic to the Pacific. The president of the company is one of Canada's leading citizens, known by many and respected by all. We are going to have a big immigration into British Columbia, and it will not be long, in my opinion, before the world will know who we are, in a mining way at least."

The St. Elmo tunnel is now in St. Elmo ground, and a cross-cut is being run both

north and south, to expose the ledge. The Iron Mask, cut at a 210 foot level, is said to show ore at about \$45 per ton, with clean ore 15 inches wide. In excavating for the new machinery plant the Iron Colt has, it is said, found the whole hillside at that point to be included in a very wide loop, very much as in the case of the Kootenay vein in the east side of Columbia hill. The new ore shute to the west of the old one in the Le Roi maintains its width. A "sample" assay gives \$388 in gold and 14 per cent. copper. In the Cliff property the fall of No. 2 tunnel furnishes a fine ground chalcopryrite, carrying 2 ounces in gold and about 24 per cent. copper, or a total value of \$65 per ton. Southern Belle, Snowshoe tunnel, in a drift made from it, shows by an assay \$31.84 of gold and 20 per cent. of copper. Mayflower east drift, 25 feet, shows clean ore 30 inches wide.

* * *

Slocan.

The customs house returns show the average value of the ore exported from Nelson during the past week to be \$103.98 per ton.

The Rambler and Cariboo Gold and Silver Mining Company, operating the Rambler and other claims at Best Basin, in the Slocan, has declared its first dividend of \$20,000, payable March 15th.

A branch of the Bank of Montreal—the first by this bank in the Slocan—is to be opened in New Denver.

The *Ledge* says: "The Payne is shipping 1,500 tons a month, not 100,000, as an enterprising but unreliable Toronto paper reports it."

A British syndicate which floated the Galena Farm Company, and is energetically pushing the property has, according to the New Denver *Ledge*, purchased the Alamo basin properties and concentrators for \$500,000. The properties are said to be on a dividend paying basis. The White Metal holds its own and more in British Columbia.

* * *

Around Kamloops.

The management of the Gold Cup mine on Sugar Loaf Mountain are employing Chinese labor to the great indignation of the surrounding people and the Kamloops *Inland Sentinel*. The latter says:—"We believe that the Gold Cup mine is owned principally by Victorians, and we think representations should be made to the owners with a view to securing the immediate discharge of all Chinese. It would be better in the interests of Kamloops that the mines should not be developed than that the work should be done by Chinese. We say this in all seriousness, and are prepared to show sound reasons for the contention."

A strike of the most beautiful ore yet seen on Coal Hill, says the Kamloops *Inland Sentinel*, was made in the bottom of the shaft on the Bonnie Etta on Monday last. The vein here is over 6 feet wide between perpendicular walls, with a talcose selvage on both. There is considerable quartz in the rock, and it looks as though the gold values would run high. The Bonnie Etta lies between the Iron Mask and the Cherry Creek waggon road, which it adjoins.

* * *

Ainsworth.

The Black Diamond property in Ainsworth camp, is being developed by a dozen miners. The Tariff shipped ore this month. It employs 20 men, has a steam pump working to keep the water down, and a Burleigh drill is in operation. The upraise to the surface in the Highlander to give the miners good air

is completed. The Dellie mine has been working all winter. No. 1 mine is in full blast and the concentrator is working night and day, and a shipment of concentrates was made the other day to Everett.

* * *

The Jordan Pass.

The Jordan Pass is a narrow pass running in a north-west direction from the west bank of the Columbia river at Revelstoke, and striking through the divide between the Columbia and Shuswap lake. Through it the Jordan creek empties into the Columbia. The pass has numerous lateral branches striking through the hills, in one of which, at a distance of about 12 miles from Revelstoke, Messrs. Frisby and Reighley, two Kentucky boys, struck what they believe to be good leads, in the summer of 1894. They made 7 locations on what they look upon as one lead, divided into two groups, the Wildgoose and the St. Lawrence. Reighley and Frisby own 6 of the locations, and Bruce Horn the other. The first group, the Wildgoose, is the one on which the most development work has been done. On one of the claims an open cut has been made to the lead, and a shaft sunk down on it 35 feet, which at its lowest depth is entirely in solid mineral. This work has been done on a 12-foot ledge of silver-lead ore carrying gold but no copper. An assay of ore taken from the Wildgoose lead went \$2 gold, 20½ ounces silver, and 66 per cent. of lead. In a 10-foot ledge running above and parallel to it, a specimen taken from the capping assayed went \$4 in gold and light in silver and lead. An assay of the ore taken from the St. Lawrence went \$2 in gold and 15 ounces in silver.—*Revelstoke Herald*.

* * *

Pannings.

The incorporation bill of Rossland is to be rushed through. Colonel Scott and A. H. McNeill, the committee in charge of the bill, accompanied by Speaker Higgins and J. M. Kellie, M.P.P., had a long interview with Attorney General Eberts. Nelson was also represented at the interview by John Houston, John Elliott and W. A. Jewett. Nelson's incorporation bill will be modelled on the plan of the Rossland bill.

Mr. Eberts informed the delegation that he was in thorough sympathy with their request. He would have a draft bill made at once and present it to them to-day. It would be introduced by the government as a government measure and passed in the shortest time possible.

Grand Forks' bill of incorporation is likely to meet with some opposition from parties interested in real estate.

Armstrong & Cook of Toronto, are at Kootenay, buying.

The British Columbia Legislature defeated a resolution asking the Dominion Government to put an export duty on ore.

There has been another strike of cinnabar at Savona. Five claims have been located in the vicinity of the C.P.R. track. J. C. Cruse was the original locator.

Jim Clarke, owner of the Lone Pine, Eureka camp, on the reservation, says the Boundary Creek *Times*, has a force of thirty men at work developing the claim. \$200,000 has been offered on a bond for this property and refused.

The Revelstoke *Herald* learns on good authority that the True Fissure claim in the Great Northern group, near Ferguson in the Trout mining district, has been bonded by the Horne-Payne syndicate for \$80,000.

It has been learned that Mr. Parry, who is making the location survey for the Crow's Nest

Pass Railway, says the Nelson *Miner*, has completed his work from the mouth of Kootenay lake northward to Gultus creek, about half the distance to the point opposite Balfour.

In the spring snow slides form a menacing danger in mountain travelling in the mining districts of British Columbia. Harry Hughes, while travelling from Revelstoke to Cody, was caught in an avalanche of snow and carried nearly a mile. He may not recover.

Application will be made to the Dominion Parliament for an act to incorporate a company to build a railway from the head of Galena or Thumb bay, or Upper Arrow lake to the forks of Lardeau creek, with a branch to Trout lake; and extensions along the north and south branches of the Lardeau creek for a distance of ten miles; also a branch of 20 miles up Fish river.

A well-known mining man who was in town a day or two ago, has completed a deal for some property on Pool creek, which runs into Fish creek, not far above its mouth. He and the firm he represents in Spokane have large interests in the Slocan country, and has made up his mind that it is fully the equal of the Slocan. The gentleman in question is no wild-eyed enthusiast, but a shrewd, practical mining man, whose opinion cannot be gainsaid, and whose lead in the direction of Lardeau intending investors in mining property would be wise if they follow.—*Revelstoke Herald*.

For the week ending February 6th, the Hall Mines treated 910 tons of ore.

According to the Nelson *Miner*, the number of tons of ore exported from Kootenay this year amounts to 3,593 1-4 tons. The smelters have produced 1,405 tons of matte.

The ore shipments week before last from Slocan amounted to 504 1-2 tons. The matte and bullion shipments during the same period amounted to 383 tons, of which the Trail smelter furnished 301 tons and the Hall Mines 82 tons.

A Vancouver correspondent of the New Denver *Ledge* says a townsite is being surveyed close to the Golden Cache mine and one of the backers is to erect a block to be known as the Golden Cache Block. Dardanelles has withdrawn all treasury stock. In Alberni the conflicting shareholders of the Mountain Rose have pooled their interests and ended the ridiculous looking state of affairs recently witnessed.

The British Columbia courts are likely to soon decide the question of the ownership of timber upon mineral claims. The Nelson and Fort Sheppard Railway Company has been selling merchantable timber wherever it could be found, and the fear is that the claims will all be denuded of wood before the timber is required for mining purposes. Hon. Col. Baker, Minister of Mines, having been appealed to, has given answer that the courts would have to decide the question.

Here is one phase of the mining fever. The New Denver *Ledge* says:—"A chunk of galena, 15 inches wide and 20 inches long, was brought into Sandon from the Good-enough last Saturday. It weighed 622 pounds and is worth \$750. Quite a number of mining men made a pool and entered into a guessing competition as to the weight of the chunk. George Wharton won the stakes with a guess of 620, while Colonel Sam got the farthest from it with a guess of 420.

The five directors of the Portland Mining Company have voluntarily reduced their salaries \$1,000 per year, each to \$100 per month.

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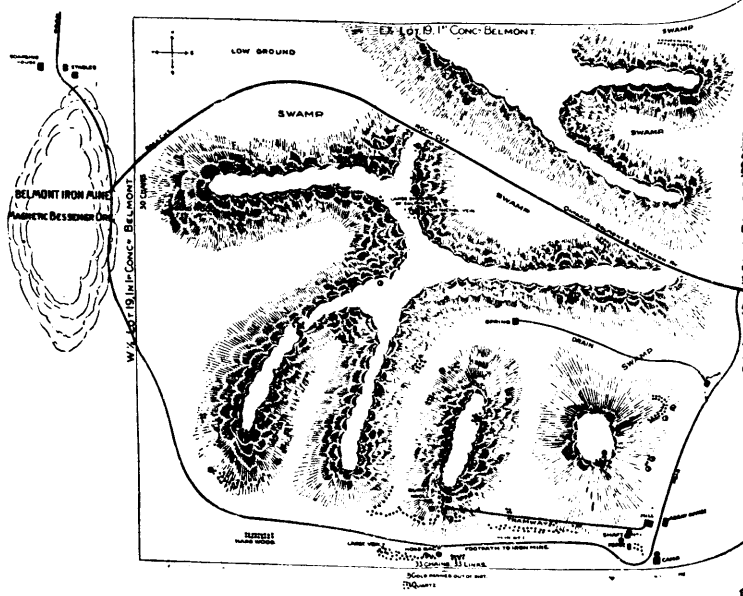
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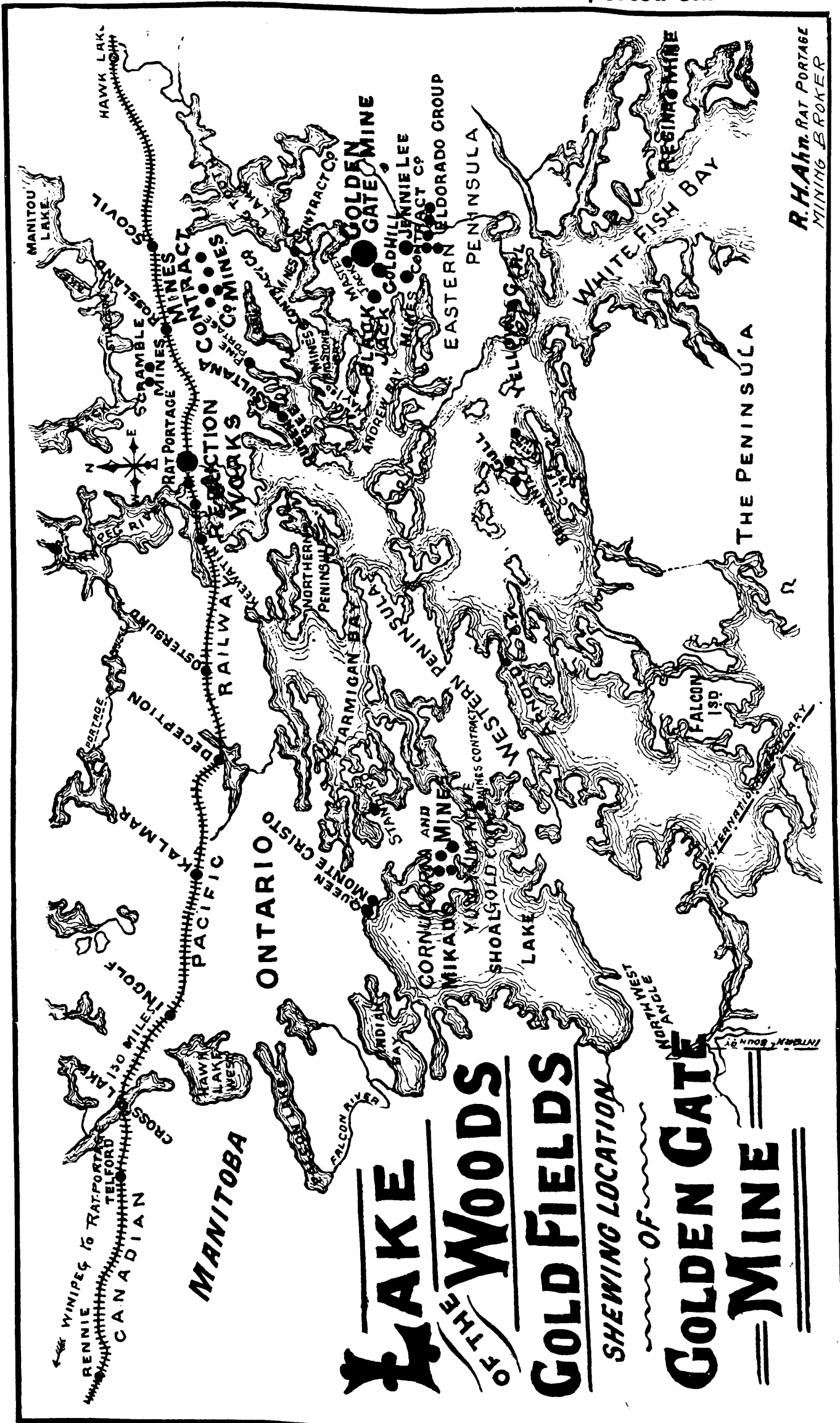
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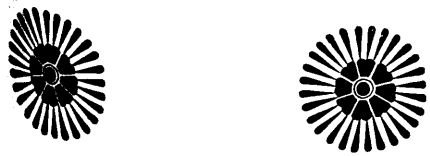
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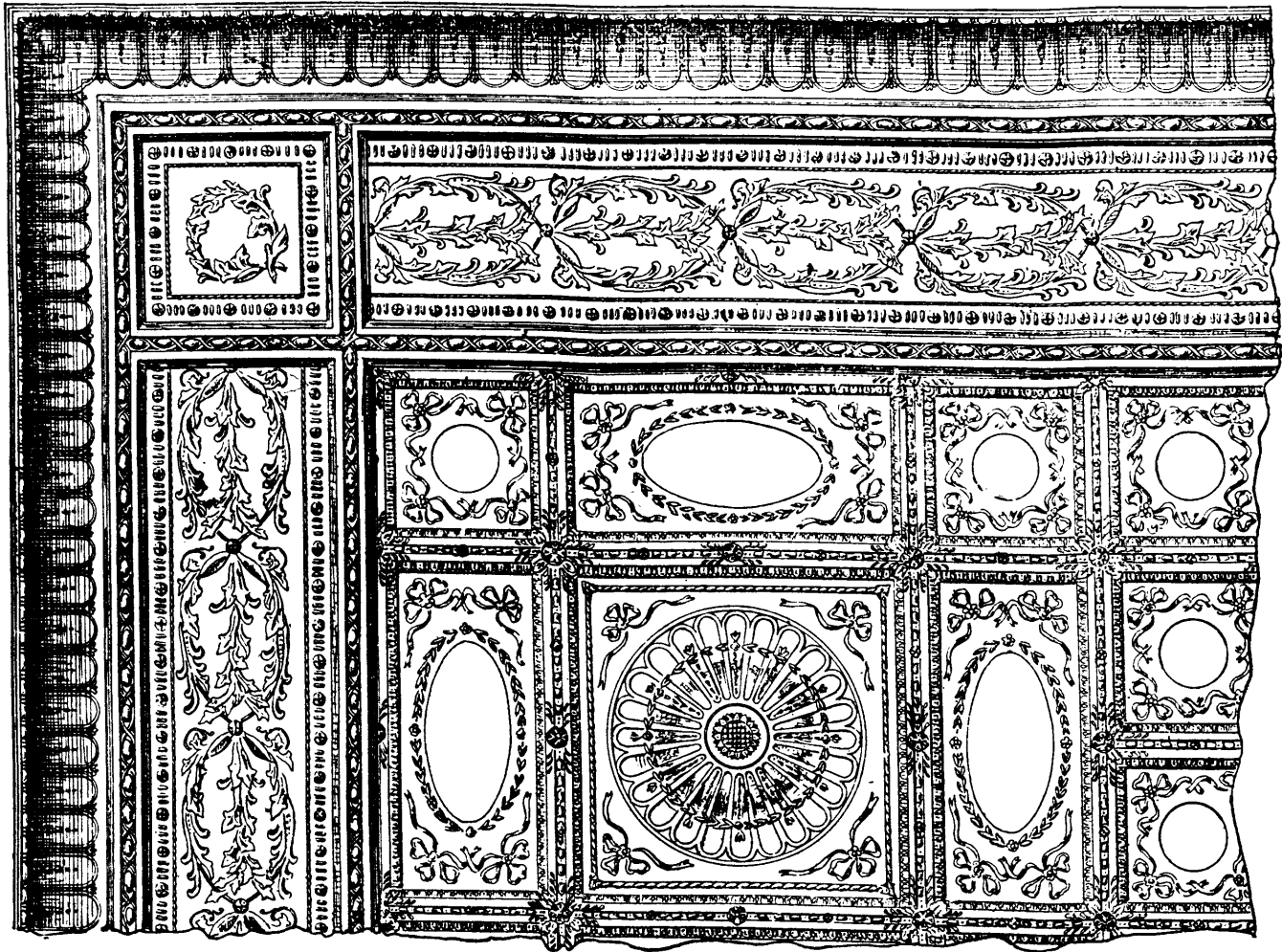
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Big Three	0 15	Lily May	0 20
Butte	0 05	Lake Harold	0 15
Colorado Gold Mining and Dev. Co.	0 35	Le Roi	8 00
Columbia and Ontario	0 10	Ledyard	2 50
Caledonia Consolidated	0 10	Lloyd Gold Mining and Development Company	0 06
Colonna	0 27	May Flower	0 17½
Cracker Jack	0 10	Monte Christo	0 18
Commander	0 30	Morning Star	0 12½
Crown Point	0 57	Monarch	0 10
Cariboo M. M. C.	0 58	Minnehaha	0 13
California	0 15	Mabel	0 15
Delhi	0 15	Novelty	0 10
Deer Park	0 23	Norway	0 10
Eldon	0 10	Ottawa and Ivanhoe Silver Mines	0 12½
Elise	0 05	Orphan Boy	0 14
Evening Star	0 13½	O. K.	0 30
Empress	0 23	Old Ironsides	0 15
Ethel Group	0 10	Phoenix	0 15
Eastern Mining Syndicate	0 16	Pug	0 17
Eureka Consolidated	0 10	Princess	0 25
Exchequer	0 10	Poor Man	0 10
Enterprise	0 20	Queen Victoria	0 10
Germania Gold Mining Company	0 10	R. E. Lee and Maid of Erin	0 11
Great Western	0 17	Rossland Red Mountain	0 25
Gertrude	0 15	Red Eagle	0 10
Gold Quartz	0 10	Santa Marie (Slocan)	0 06
Gold Hills Exploration and Dev. Co.	0 15	St. Elmo	0 12
Gold and Silver Mines Dev. Co.	0 20	St. Paul	0 12½
Golden Queen (withdrawn from sale)	0 00	Spokane-Kaslo Mining and Milling Company	0 10
Good Hope	0 10	Silverine	0 12½
Homestake	0 17	Silver Bell	0 10
Hansard Gold and Copper Mining Company	0 10	Two Friends	0 35
Heather Bell	0 20	Victoria Triumph	0 15
High Ore	0 07	Virginia	0 19
Iron Mask	0 60	West Le Roi and Josie	0 27
Ibex	0 06	War Eagle (Con)	1 15
Iron Colt	0 20	Washington	0 25
Iron Queen	0 04	Zilor	0 15
Josie	0 60		

LONDON (ENG.) QUOTATIONS.

PAR VALUE £1.

Cornucopia (Lake of The Woods)	\$7 50
Mikado	7 50
Gold Exploration Company of Canada (Seine River)	5 00