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THE CANADIAN MINER

No. 18.

Vol. I.

TORONTO, ONT., MAY 15, 1897.

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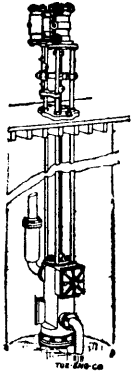
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FIRST-CLASS White Mica Property, 200 acres, in the Township of Methuen, Co. of Peterboro', for sale. This is a rare opportunity. Price moderate. Apply Box 7, Canadian Miner Office.

WHITE Mica Property for sale in the Township of Hungerford, Ontario, adjoining Sheffield Station on the C.P.R., with good report. For particulars apply Box 3, Canadian Miner Office.

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

The Canadian Miner.

VOL. I.

TORONTO, MAY 15, 1897.

No. 18.

THE LAW FOR ONTARIO MINERS.

DIGEST OF THE REGULATIONS GOVERNING OPERATIONS.

The *Mail* and *Empire* thus gives a digest of the Ontario Mining Law as it stands at present:

IN REGARD TO OPERATIONS OF MINES.

Mining rights are by the law defined as meaning ores, mines and minerals on or under any land where the same are dealt with separately from the surface of the land.

Mines and minerals upon lands located, sold or granted within the limits of the Free Grant territory, are reserved from the location, and are the property of the Crown.

In any letters patent for lands granted under the Public Lands Act for agricultural purposes, minerals and mining rights are reserved, and are constituted a property separate from the surface of the soil, unless otherwise provided in the patent or grant from the Crown.

Mining lands may be acquired from the Crown either by purchase or lease under the Act. Application should be made to the Director of the Bureau of Mines, Toronto.

APPLICATIONS FOR LANDS.

No application for mining lands containing ores or minerals of the same kind can be entertained in one year from any person for more than 320 acres, or from a firm or company for more than 640 acres, within a radius of fifteen miles in any one district or county. Such areas, thus applied for, may be in separate localities of not less than forty acres each, and the entire property must be within a circle the diameter of which is thirty miles. Outside of this circle of locations other property may be acquired in a similar way. In the event of an application lapsing or becoming abandoned, the holder may apply for other land in the same district up to the limit of 320 acres. Power is given the Commissioner of Crown Lands, when a locality is reported to be rich in minerals, to limit applicants to one forty-acre location or more at his discretion.

No grant of a mining location can be less than forty acres in extent, except when it is situated on an island which is of less size than forty acres.

HOW TO APPLY.

An application for a mining location must be accompanied by an affidavit showing the discovery of valuable ore or mineral. The discovery may be shown to have been made by the actual applicant or by anyone acting upon the applicant's behalf. A prospector may secure his full number of acres, and other locations may be granted to others whom he represents, upon affidavit showing discovery by him. The affidavit must also state that there is no knowledge upon the part of the applicant of any adverse claim by reason of prior discovery or otherwise. Within sixty days of the time of the filing of the application one-fourth of the purchase or rental money must be paid, and the remaining three-fourths within three months. The application failing in any of these respects will lapse. A patent or lease cannot issue until a survey has been filed, and in the case

of locations in surveyed townships, the time for completing all requirements may be limited to thirty days, at the pleasure of the commissioner.

MINING LICENSES.

No mining licenses are issued except to holders of a mining "claim." A "claim" is a square of fifteen chains, or 990 feet, containing 22½ acres. None of these mining divisions have been granted, and no such licenses are held, this part of the Act not being in operation. A mining license is to be obtained on personal application.

TO LAY OUT A "CLAIM."

The regulations relating to the dimensions and laying-out of a "claim" were changed by the last amendments as follows:—

"A licensee having discovered a deposit of ore or mineral within the division mentioned in his license shall have the right to stake out a mining claim, providing that it is on Crown lands not withdrawn, and is not included in a claim occupied by another licensee, and shall have the right to work the same or to transfer his interest therein to another licensee; and in case the surface rights have been granted, leased, or located by the Crown to another person, the licensee must proceed in the usual way. A mining claim shall be deemed to be staked out when a discovery post of wood or iron, on which is written or stamped the name of the licensee, is planted upon an out-cropping or other indication of ore or mineral within the boundaries of the said claim, and a post of wood or iron is planted at each of the four corners in the order following:—No. I. at the north-east, No. II. at the south-east, No. III. at the south-west, No. IV. at the north-west, the number in each case to be on the side of the post turned towards the post which follows in the order in which they are named; and if one or more corners of a claim fall in any situation where the nature or shape of the ground renders the planting of a post or posts impracticable, such corner or corners may be indicated by placing, at the nearest suitable point, a witness post, which, in that case, shall contain the same marks as those prescribed herein for corner posts, together with the letters W.P., as an indication of the bearing and distance of the site of the true corner from such witness post."

ALL CROWN LANDS OPEN.

All Crown lands are mining lands and may be prospected upon. The Government has, however, the power to withdraw any land which may be valuable for any pine timber, or for other reasons. Some land—the neighborhood of Lake Wahnapiatae—has already been withdrawn, in this way, because it was feared that the timber tracts would be destroyed by fires kindled by prospectors in their camping places.

GOLD ON ANOTHER'S PROPERTY.

The purchase of a property does not include mining rights, but the ores, minerals, and mining rights may be granted or leased to the owner by the Crown upon application. The discovery of a deposit upon the property by an outsider, however, entitles him to have the mining rights granted to him, if

there is no application made by the owner of the property before his claim has been sent in. If the mining rights be granted to any person other than the owner of the surface rights of the property, the successful occupant may come to terms with the owner of the surface rights; if no settlement can be arrived at, the courts can be appealed to, and the dispute settled by arbitration. In order to protect a property it is necessary to secure the mining as well as the surface rights.

LANDS HELD UNCONDITIONALLY.

All the lands sold by the Crown previous to the Acts of 1891-92 were sold unconditionally. All rights were included in these lands, and no development work was required. Sales of land since the passage of that Act are made subject to requirements of development work.

PRICES FOR MINING RIGHTS.

The Mines Act of 1892 set the following schedule of prices for Crown lands sold as mining locations, this portion of the Act not being amended at the last session of the Legislature. The price per acre of all Crown lands to be sold as mining lands or locations in the districts of Algoma, Thunder Bay, Rainy River, and that part of the district of Nipissing which lies north of the French River, Lake Nipissing, and the River Mattawa, is:—

- (a) If in a surveyed township and within six miles of any railway \$3 00
- (b) If elsewhere in surveyed territory. 2 50
- (c) If within six miles of any railway, but in unsurveyed territory 2 50
- (d) If elsewhere in unsurveyed territory 2 00

The price per acre of all other Crown lands sold as mining lands or locations, and lying south of the above mentioned lake and rivers, is:—

- (e) If in a surveyed township and within six miles of any railway \$2 00
- (f) If elsewhere 1 50

LEASING OF RIGHTS.

Under the Act a lease is treated precisely in the manner in which a patent is issued. No 999-year lease of any mining property can be obtained. Instead of obtaining mining lands in fee simple, the applicant has the right to lease locations for a term of ten years, subject to renewal for a term of ten years at the same rental, if the conditions have been complied with, and at the end of this time a twenty-year lease can be obtained, which can be repeated indefinitely upon the yearly payments being made. The rents under such leases are in two divisions—for locations in the districts of Algoma, Thunder Bay, Rainy River, and that part of the district of Nipissing which lies north of the French river, Lake Nipissing, and the River Mattawa, the rental of the first year is fixed at \$1 per acre, and 25 cents per acre for each succeeding year. For all other locations leased the rental price is fixed at 60 cents per acre for the first year, and 15 cents per acre for each succeeding year.

DEFAULTING PARTNERS.

A new subsection was added to the Act at the last session, dealing with the forfeiture

of leases on non-payment of rent, and providing that if one or more of several co-owners or co-lessees of a location fails to contribute his or their proportion of the expenditure or of the rental necessary to hold such location the co-owners or co-lessees who have not so failed are empowered to give notice by registered letter or personally to the parties so failing, and if the delinquents shall have failed to make the payments at the expiration of three months, the Commissioner of Crown Lands may, upon report of the Director of the Bureau of Mines, order that the defaulter's interests may be vested in the co-owners or co-lessees who have made the payments.

DEVELOPMENT WORK.

Upon each location the law requires an expenditure of \$2 per acre for the first two years, and \$2 for each of the following five years. This expenditure may consist of labour actually performed by grown men, or of payment for explosives or other mining material for use on that particular parcel of land. The wage of a full-grown man is fixed at \$2 per day.

It is not required that work on claims lying to the north of French river, Lake Nipissing, and Mattawa river shall be done between December 1st and April 1st, but actual work must be shown during the other months.

ROYALTIES.

A royalty, not to exceed three per cent. upon all minerals mined in the province may be imposed by an order-in-council.

GRANTS TO DISCOVERERS.

In the case of original discovery, the following provision is made in the latest Act :

"A prospector or explorer who is the first discoverer of valuable metals, ores or minerals, shall be entitled, subject to the royalties, to a free grant of one location of forty acres where the vein, lode or other deposit is not less than fifteen miles from the nearest known mine, vein, lode or deposit of the same metal, ore or mineral respectively, and proofs of his being the first discoverer and of distance from the nearest known occurrence of the same metal, ore or mineral shall be made by affidavit to the satisfaction of the Commissioner of Crown Lands."

That portion of the old Act, which provided that no person should occupy at the same time more than one mining claim on Crown lands, and that the discoverer of a new vein or lode of ore or mineral shall be entitled to two mining claims, were repealed at the last session, and are no longer in force.

A water-power, lying within the limits of a claim, is not to be taken as part of it for the use of the licensee.

THE YUKON.

OFFICIAL REPORT OF THE FAMOUS FAR NORTH GOLD REGION.

INSPECTOR CONSTANTINE'S report upon the work of the mounted police detachment at Fort Cudahy and Forty Mile, of which he is in charge, has been published in the departmental blue book just presented to parliament. It contains some excellent information upon the progress of mining development in the Yukon. The report, which is dated Nov. 20th, at Fort Constantine, Yukon River, says :

"As far as I can learn the amount of gold taken out this season is about \$300,-

000, or 17,647 oz., chiefly from Miller and Glacier creeks. This is a slight increase on last year. The average cost of refining and coining dust is \$5 per \$1,000 at the United States government mines at San Francisco and Helena.

BONANZA CREEK.

"In August of this year a rich discovery of coarse gold was made by one George Carmack, on Bonanza creek, a tributary to the Klondike or Trondec river, which flows into the Yukon river, about 50 miles from here, entering from the south-east. His prospect showed \$3 to the pan. As usual such a prospect created a stampede to the new diggings. Men left their old claims, and with a blanket, axe and a few hardtack prospected on the new creek, staked, and registered their claims, which in all cases gave better prospects than any other heretofore. Many old miners state that this creek is fully as rich as any found in California in the early days. New creeks are being found daily, all prospecting well. Three hundred and thirty-eight claims have been registered to date, and there still remain about 150 to be entered.

A GREAT COUNTRY.

"The country between Hunker Creek and McQuesten River, which empties into the Stewart river, is full of small creeks and gulches, which on being prospected have all given good results. It is probable that the gold belt will in time be found to extend from the Klondike to the Cassiar, and that the whole of this to the Divide will prove to be rich in gold. Without doubt before long rich quartz will be found, but not worked until some means of transporting the necessary heavy machinery is provided, and supplies can be got in at reasonable cost. The gold bearing creeks in Canadian territory on the west side of the Yukon are as follows: Gold, Glacier and Miller Creeks, all but one mile of bed-rock, Moose and the first fork of Moose Creek, one mile of the three heads of Smith Creek and of the several heads of Canyon Creek, about one mile of the Poker and Davis branches of Walker Creek.

"On the east side of the Yukon are the following creeks: Bonanza, Boulder, Adams, Eldorado, Victoria, Carmack, Bear, Last Chance, Hunker, Gold Bottom, and Baker Creeks. These latter creeks are all of a fair size with a good supply of water for mining purposes, and easy of access.

"Bonanza is a large creek, and it is possible there may be too much water to be easily worked in the spring.

"A gold commissioner is urgently needed, and should reside on the principal creek of the district. One man cannot do all the work there is to be done now, such as visiting the different creeks, settling disputes and keeping the office work up."

NEEDS OF THE COUNTRY.

Among the recommendations of the inspector are that trails be constructed through Canadian territory to reach Miller and Glacier creeks, and from Klondike to Bonanza and Bunker creek districts. "I sent out last spring nearly \$9,000," he says, "and have now on hand nearly \$12,000, chiefly revenue derived from mining fees. The miners think that as some return for the large amount of money paid in by them

increased facilities for reaching the mines should be provided by the government."

"A new post should be built in the spring at the mouth of the Klondike river, which flows into the Yukon on the east side about 53 miles south-east of Forty Mile. This point will be the base of supplies for the new diggings and will in all probability be the largest camp in the country. Nearly 350 claims have been already registered in this district. As the average number of men required to work a claim is five, it means a camp of nearly 2,000 workers as well as the usual number of camp followers. I intend to erect at this place in the spring two buildings, one a barracks room, the other a lock-up.

"The men will go up the river on the last ice, about the end of April. A small post should also be built at Pelly, 240 miles southeast of here, more especially if the Dalton trail from there to tide water be opened up. Horses can be ridden over this trail, and the post would be chiefly required for the quick transmission and receipt of letters and reports. According to Dalton, with horses it is only nine days' travel, light, to the coast at Chilcat."

Of the several ways of getting to the country Inspector Constantine says :

"The route via St. Michael's (the American route) is long, uncertain and fraught with many dangers by sea and river. In occasional seasons only can vessels get into Norton Sound before 1st July. St. Michael's has no safe harbor, only an open roadstead, and when a gale of wind comes up vessels have to put to sea or to the shelter of an island called Egg Island. Last season 18 or 20 days were lost by the river boats on account of bad weather and ice. In consequence only two river steamers made one through trip each. The river service at present extends only to this point, leaving the upper and richer part of the country entirely without supplies.

"In justice to the country a route should be opened up from the south either by Teslin lake or Hootalinka river, or by a route known as Dalton's trail, which was travelled by a man of that name last season. Forty head of cattle were driven in over this trail from the coast to Pelly last summer. They arrived in good condition. The drovers report that they had only to kill four head on the way in. These were the heaviest animals and became footsore. Good bunch grass was found along the trail for a distance of over 150 miles. The height of the pass is said to be 2,800 or 3,000 feet above the level of the sea. The rise is gradual, the country generally is rolling with some tablelands, with good fishing along the route and plenty of large game. Horses can be brought as far as Pelly without difficulty and from there can be floated down the river on rafts or scows. The time with horses from Chilcat to Pelly is nine days light and 12 to 14 with packs. Dalton has travelled along this trail for some time, but had said little about it on account of the large number of valuable furs he was able to procure."

For advertising boilers, engines and all kinds of machinery and supplies needed in mines, the Canadian Miner is a medium surpassed by no other, for it reaches the managers of Canadian mines.

THE BRITISH COLUMBIAN MINING LAW.

IMPORTANT CHANGES IN THE ACT NOW BEFORE THE LEGISLATURE.

ONE of the most important measures that have occupied the attention of the British Columbia Legislature is the bill relating to mining corporations. It amends and consolidates all the Acts now on the statute books bearing on the incorporation of joint stock companies, cancels all former Acts, and contains in itself all the law on the subject. The amendments are chiefly based on the Imperial Acts, and on the measure recently passed by the Ontario Legislature.

One of the new clauses fixes the number of persons necessary to form a company at five. Hitherto it has been lawful for three persons to organize a joint stock company under the provisions of the Provincial Act, while in England it is necessary for seven persons to sign the memorandum of association. It has been thought that a middle course between these two would meet the necessities of the case, and the number has been fixed at five.

CASH DEPOSIT CLAUSE.

In the draft measure, clause 20 required that before a company could commence business 10 per cent. of its capital must be paid up in cash, besides any amount payable otherwise than in cash. This provision was taken from Lord Dudley's bill, now before the Imperial Parliament. There is a great diversity of opinion on the matter, even in England. It is a requirement which can be nominally complied with, but practically evaded by dishonest promoters, while it may frequently be a source of embarrassment and difficulty to bona fide and legitimate enterprises. The provision has been accordingly omitted from the revised draft of the bill.

NON-ASSESSABLE SHARES.

One of the most important subjects with which the House had to deal was the question as to whether mining companies should be allowed to issue shares at a discount, without any liability attaching to the purchase of them for the difference between the issue price and the nominal par value of the shares, in case of the company becoming unable to meet its obligations. Most of the companies incorporated to carry on mining operations have issued their capital in this manner, and it is of great importance to them and their shareholders that the status of such shares should be defined by law. The House has made it lawful in the bill for mining companies to issue shares at a discount, but has introduced provisions in regard to the matter for the purpose of protecting investors and the public from fraud in connection with shares issued in this manner. Share certificates of companies issuing shares at a discount must bear on their face a statement that they are issued under the provisions of section 56, the clause dealing with that matter. All documents issued by such a company must also bear the words "Non-Personal Liability" after the name of the company. Companies incorporated previous to the passage of the Act, and which have issued shares at a discount, can remove any doubt as to any liability attaching to them by re-registering themselves under the provisions of the new Act.

The bill provides that for the future all joint stock companies carrying on business in the province will be divided into two kinds—provincial and extra-provincial. The latter, which, as the term implies, are those

incorporated outside of the province, are again divided into two classes. One of these will consist of companies organized under the laws of Great Britain and Ireland; of the Dominion of Canada; the old Province of Canada, or of any of the provinces of the Dominion. The laws of all these places in regard to joint stock companies are very similar, being based on one model. Such companies can obtain a license to carry on their business in British Columbia. The second class will comprise companies organized elsewhere, and before they can do business in the province they must be registered under the Act. Extra-provincial companies doing business in the province before the passage of the Act will have until January 1, 1898, to comply with its provisions.

There is also a new provision inserted in the bill in regard to the transfer of shares. Extra-provincial companies issuing or disposing of their shares in this province, will be required to designate an office within the province where shares can be transferred, and where a register of the shareholders must be kept.

HOW GOLD VEINS ARE FORMED.

IS THE IMPORTANCE OF FISSURE VEINS EXAGGERATED?

MR. T. A. RICKARD, State geologist of Colorado, is to visit the Algoma district in the interest of English capitalists. Apart from the effect which his visit may have on the mining industry of the Ontario north-west his views of the formation and deposition of gold are of considerable interest. In a paper read before the American Association of Mining Engineers last year he very frankly discussed the conditions of vein formation, and takes the "true fissure vein" down a peg or two from the eminence it so long has held. He does not, however, accept the theory that the gold has floated in from the country rocks, contending that the metals have been carried up by water and deposited in crystals along the protruding points of crushed and parted rocks, and that all the indications favoring the other theory can be satisfactorily explained.

"From time immemorial," he says, "the fissure vein has been held the simplest form of ore deposit. The prominence given to it by Cotta and his disciples is impressed upon technical literature, and, in consequence, the ores which carry the valuable metals have been supposed to occur mainly in fissures cleaving the rocks in diverse directions, and the noblest type of vein has been deemed that which cut across the country, independent of its structure, whether evidenced as bedding, foliation or cleavage, and which was identified with rents produced in the rocky crust of the earth. . . . These primary conceptions have become modified by the experience of modern mining in widely separated regions." Later, he gives many instances which go to show that a too great regard for the "true fissure" has its economic drawbacks: "In many veins only one vein is exploited, and cross-cutting the country rock in search for parallel lodes is entirely neglected. In others a cross-cut is stopped as soon as it reaches the further wall of the particular vein it was started to reach. Both these unwise practices are founded upon a misconception of lode-structure, due to a narrow interpretation of economic geology, which lays a misleading emphasis upon the definition and clean-cut boundaries of so-called 'true fissure veins.'

WALLS WITHIN WALLS.

The fact is, as daily observation proves, there are walls within walls, and walls beyond

walls, and that to follow closely any particular hard, smooth rock-surface, with the idea that it is the utmost limit of ore occurrence in any particular mine, is to be blind to the realities of geological structure."

As an example of this Mr. Rickard gives a drawing representing the face of a drift in the Canton mine, New Zealand, which shows two veinlike spaces lying between larger masses of rock: "It was not possible to say where the lode ended or where it began. The whole width was known to be gold-bearing, the foot wall serving as a guide in following the gold-bearing channel. Nevertheless those who were working the mine had little comprehension of the formation, particularly of its essential lack of definition, and while admitting that there were several 'false hanging walls,' insisted that there was only one foot wall, which was stated to be of a different kind of rock and exceptionally hard. On examination I found that the rock of the supposed foot wall was similar to that of the rest of the gold-bearing country rock forming the lode, and on a sample of it being crushed and tested in a prospector's pan it was discovered to be richer than that which was being actually mined. It was scarcely necessary after that to insist that a cross cut should be made in to the foot wall."

ALTERED COUNTRY ROCK.

He refers also to the existence of veins whose filling is "readily recognized as simply altered rock, containing only an insignificant percentage of material foreign to the composition of the original granite. Nor is this an abnormal type of vein structure. The rich gold mines of Cripple Creek afford numerous examples of it. Of such is the Independence vein, whose richness is such as to cause its commercial value to obscure its scientific interests. It illustrates very aptly this part of our inquiry because the ore is so very evidently only altered country rock. In 1893, when the workings had not penetrated far from the surface, the car loads of ore sent from this mine to the Denver smelters gave the impression that some one had blundered and either shipped waste from a cross-cut or else switched cars of ballast into the place of loads of ore. One could see that it was the normal Pike's Peak granite, with its big pink feldspar, but it required a trained eye to note that the mica had been largely removed, leaving small iron-stained patches. It was ore by courtesy, because there was enough gold present to give it a certain commercial value, but it was clearly granite, not much altered and but slightly mineralized."

SACKING IN THE SHAFT.

THE Duluth *Herald* says that some time ago the report became current that at the Ferguson property, near Seine river, the ore was so rich that the owners would not allow outsiders to touch it, but were sacking it up in the shaft. Now the report is current that in their efforts to preserve secrecy the owners of the Ferguson have gone a step further, and now have their precious ore hedged about by a circle of precautions that would protect the United States treasury. The story is that the managers of the mine will allow no one to work at the stamp mill, except the office force, and that no one outside of the men necessary for the operation of the mill is allowed to step within its doors.

The idea is that the ore is so precious that they dare not trust any outsiders with it. Those on the outside who know of the wonderful rich ore which was struck at the Ferguson do not know whether it held out or not. It may not have exceeded 500 pounds, but the fact that these precautions are kept up would indicate that the rich find still holds out.

The Canadian Miner.

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AND

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MINING IN ONTARIO.

THERE is at present in the Rainy River district every indication that the hopes of the reasonably sanguine of our mining men will be realized in the development which will take place within the next six months, and it is not too much to predict that in a short time Canada will have taken her place with Australia, New Zealand, South Africa, and the United States as a gold-producing country. The continuity of many of our better known deposits has already been proved; it now remains for us to demonstrate their depth, and it has not been possible to do this in the limited time during which we have been operating. Perhaps the strongest argument in our favor is that the properties upon which, during 1895 and 1896, the largest amounts of money have been spent, viz: the Sultana, Regina, Foley, Mikado, Cornucopia, Saw-Bill, Hawk Bay, and Mascotte, have all turned out remarkably well, and many of them have already taken their place among the steady producers. The area covered to date by locations surveyed and taken up is merely a fringe along the shores of the lakes and rivers, and bears but a small proportion to that as yet unexplored, and the legitimate application of the argument is that there are as good fish in the sea as ever came out of it. It would be indeed a remarkable thing if all the best properties were selected and operated in the first year.

And in respect of this there is no safer or more legitimate method for a syndicate to start operations on a small scale than by outfitting and sending into the field a survey and exploratory party capable of searching for, testing, and securing deposits of auriferous quartz, thus coming in on the ground floor without responsibility to innumerable small shareholders and with every limitation to liability. This we hear is already being done to a considerable extent.

One trouble with which the practical miner has to contend, and it is not the least

of them, is that many men whose mercantile progress has been based on prudence, forethought and sound common sense, apply none of these qualities to a mining investment, but expect 100% a month, whereas 15% per annum would be regarded as eminently satisfactory with regard to their own business. There seems to be an aureate microbe in the air which upsets the balance and undermines caution. If a prospective investor sets aside a sum, say of \$1,000, as something which is not required for his business and of which he can tranquilly bear the possible loss—well and good—but neither the investor nor the mining world at large is benefitted by the application of money to mining purposes which is elsewhere involved and necessary.

We fear the truth of this will come, in the near future, home to many who are now anxiously looking for returns from small investments made on the strength of an inviting and plausibly worded prospectus. We do not write for the mining man, who, it is to be presumed, knows his business better than we can teach it to him, but we do speak to those who feel the temptation to invest and can ill afford to lose. Unless information from the "inside" is available and the investor is thoroughly satisfied with the reasonableness of the undertaking, and the probity of those whose names are published in connection therewith, we offer *Punch's* immortal advice to those about to marry.

On the other hand, once it is proved that the scheme is practical, that no insurmountable physical difficulties exist, that the *modus operandi* is modern and economical, and those in charge are competent and responsible, we can imagine no more fair or honorable calling or investment. The actual production of the precious metals increases the world's wealth; it calls for technical skill, foresight and prudence, and the success of a mine does not depend on a corresponding failure elsewhere—as unfortunately is the case with too many of our "up-to-date" business undertakings.

It not infrequently happens that a mill is erected on a property before the underground work is sufficiently advanced to furnish an unfailing supply of ore. The temptation to get up a mill and turn out a brick is great, and owners, dazzled by the vision of this "phantasmal brick," are apt to forget that every hour during which a mill is shut down means an actual and very considerable loss in money.

While the expenditure of such a sum is by no means necessary before milling begins, \$40,000 is not too large an estimate to make to provide for a complete development to a depth of about 250 feet with the accompanying drifting and winze work. This of course is with reference to quartz mining only, and under the ordinary circumstances governing the cost of labor, supplies, fuel, etc. Some mines, such as the galena deposits of the Slocan, will be producers and shippers from the start, but in ordinary cases it is safe to provide for a much larger initial expenditure in development than is usually considered necessary.

The true way to proceed is—demonstrate the presence and value of ore bodies, then put

up the mill. Cases of course exist in which this value is so high that it will practically pay for the work in progress, but these are exceptional and must be dealt with as such.

Into the varying treatment of ores we cannot here enter, suffice it to say that it should in every instance be determined only by the most careful and exhaustive experiments. Much of the concentrates we are now obtaining runs very high in value, and the question of chlorination or cyanidation is correspondingly weighty. The former is rather the more complicated of the two and requires possibly more care in operation: the latter leaves a loop hole for loss by the employment of solutions too strong in cyanide, and, therefore, consequent waste. Literature embodying the results of world-wide practice is easily obtainable, and we advise a careful perusal of it by those interested in its subject matter.

In these, and all other questions affecting the successful development of our magnificent mineral resources, the public will find THE CANADIAN MINER ready and anxious to do what can be done, and to this end we invite co-operation and support of our readers and contributors.

THE TARIFF AND MINING MACHINERY.

THAT there should be not a few in some of our mining regions who approve of the admission of foreign mining machinery free of duty is what we would expect. Much of the British Columbia gold mining is done by Americans, and naturally Americans will deal, in the absence of a duty against American machinery, with fellow-countrymen with whom they have been maintaining relations. That there should be Canadians who approve of the regulation is also natural. Until recently little machinery specially used in mines has been made in Canada, and American machinery is commonly known to mining men. But now that we are producing much of the machinery here, and likely before long to make almost all kinds in the abundance which gold fields as great as, if not greater than, those of the United States must demand, we have every reason to hope that our machinery will be as good and as cheap as any purchased in the United States. Under these circumstances it seems eminently unwise to give our machinery men a set-back that may result in handing over the supply of mining machinery into American hands, with the likely enough result that the killing out of budding Canadian factories will be followed by an advance in prices. Eastern Canada pays much for the development of the West: the West should have some regard for the industries of the East. No feature in the fiscal policy of the country has met with more general approval than the old distinction in the tariff between free admission of machinery not made in Canada, and a duty on machinery such as Canada herself furnishes. There is no serious call for abolishing this distinction, and we hope the Government will reconsider the bearing of the new tariff in this regard.

NOTES AND COMMENTS.

PEOPLE would scarcely look for minerals on the rich soils of the beautiful County of Waterloo, covered everywhere with farms and orchards, and flourishing towns and villages by the scores. Yet an iron deposit is announced there, close to Berlin.

THE National Mining Bureau of Colorado has called an international gold miner's convention to be held in Denver, on June 15th and 16th. Of course a good representation is expected from British Columbia, and we may hope there will be some representation from Ontario to put the richness of the Ontario fields before the mining world of the United States.

PEOPLE interested in the gold fields around and tributary to the Lake of the Woods, should endeavor to attend the mining convention to be held at Rat Portage on the 2nd, 3rd and 4th of June. The papers and discussions will be practical, and very much of the time will be given to examination of the many rich mines and property within easy and pleasant reach by steamboat and railway.

THE Rat Portage *News* urges very properly the necessity of combining forces to provide cheap transportation for north-western Ontario south of the C.P.R. The railway from Port Arthur to tap the Seine and Manitou county needs on the western side, uninterrupted water communication from Mines Centre on the Seine, to Rat Portage. The Fort Frances locks should be completed at once so as to open the magnificent stretches of Lake of the Woods, Rainy River and Rainy Lake. A small expenditure now will greatly hasten the development of the country.

MINES CENTRE on the Seine River, not far up from Rainy Lake, is likely to become an actual city within a short time. Its name is emphatically very appropriate. The head of navigation, the prospective terminus of perhaps two railways with close connection with Duluth when the railway from that city to Rainy Lake is built, it will offer the advantages of cheap transportation of men, machinery and supplies for the immense gold region round about, a region which embraces many of the most noted mining properties of the north-west. Gold and iron are not distant, wood and water are abundant, and close at hand is eighty miles of fertile alluvial land, comparable with almost any in Ontario and already largely taken up by farmers from the older parts of Ontario. Mines Centre is sure of a great future.

WE hope that the new Ontario will not repeat the mistakes in planning the water fronts of their towns that have been so common and so regrettable in older communities. Rat Portage is now contemplating improvements of utility to commerce. Why not, after providing for a few convenient structures along the water, keep a strip of water front bare, *a la* Naples and Calcutta—and thereby enhance the beauty of the place. Mines Centre should do likewise. We are gradually crawling out of the middle ages, but in this respect narrow views of utilitarianism interfere with the ultimate purpose of that virtue or vice, and (even the present generation kicks itself at its early mistakes),

reveal their effects too late for remedy, except at great expense. Rat Portage will be an important city, and probably so will Mines Centre, and we hope that in any planning of their water fronts, the beauty of an esplanade finely backed by buildings, will not be overlooked.

THE great gold fields south-east of Rat Portage, have a mail service by steamers twice a week during the season of navigation and about once a fortnight in the dead of winter. At the beginning of winter when the ice is forming and at the end when it is going away—the latter sometimes a long period—the mail service is practically suspended. Regarding the service, the *Rat Portage News* says: "There is but one way to obtain an efficient and rapid service, at least with the central points of the gold regions lying to the south-east of Rat Portage, and that is by building a branch line to connect Fort Frances with the C.P.R. main line. Such a line is quite as essential to the development of the Lake of the Woods and the Rainy Lake region as the Crow's Nest road is to the section of British Columbia through which it is to run, and if our citizens generally will join in a movement to promote the construction of such a line to start south from the most convenient point, anywhere between Rat Portage and Wabigoon, or even farther east, if a practical route cannot be found within the points mentioned, they will be doing a work which must eventually prove of great importance to promote the growth of this section of Algoma."

AROUND TOWN.

MR. WHYTE, Q.C., of Kingston, has been in town. Mr. Whyte has long given attention to mining affairs.

MR. FRANK R. POWELL, barrister, etc., enjoys a considerable reputation in commercial and mining matters, to the latter of which he has of late years given much attention. He gives prompt attention to government departmental business—a very important matter in these days of activity in the gold fields.

MR. LOUIS F. HEYD, barrister and solicitor, appears to be one of the rising barristers of the city, and has a large practice in several parts of the province, notably around Brantford and Brampton, where he has branch offices. Mr. Heyd, in addition to ordinary legal business, advises in mining law and the organization of mining companies.

At a meeting of the Jack Fish Bay Mining Co., Limited, held in Toronto a few days ago, the following Board of Directors was elected: C. B. Jackes, president; J. M. Staebler, 1st vice-president; M. J. Patterson, 2nd vice-president; Wm. Maguire, secretary-treasurer; R. Carroll, D. Lackie, D. S. C. Dinnick. The company hold many locations in the Jack Fish Bay country, some of them apparently amongst the most promising properties in Canada or in the world.

In a reference last week to the mining properties of which Mr. James Laut, of 49 Canada Life Building, is the sole agent, a typographical mistake makes the Goodenough mines read the Golden Eagle. The Goodenough mines, Limited, is capitalized at \$800,000. The properties are in the famous Slocan country and on the line of the Kaslo and Slocan railway. Much development work has been done. It is now pro-

posed to apply money in the excavation of a 500 foot tunnel to tap the Goodenough vein 200 feet below the present working.

A BIG FREIGHTING BUSINESS.

MESSRS. PETER RYAN and John Shields, of Toronto, we learn, are conducting a big transportation service in British Columbia. From Ashcroft on the line of the C.P.R. northward to Barkerville, the coming city of the Cariboo and the centre of that immense placer field, stretches along valley and mountain, amid the rugged glories of the Pacific Province, a "boulevard," said to be for its length without a rival, as a highway, on this continent. It is constructed of macadam and with great care. Barkerville and neighborhood is beginning a period of activity in placer mining under very modern methods, that will outshadow the boom of the sixties. Last year the C.P.R. is said to have earned about \$100,000 on the freight transported to Ashworth for carriage up the great road to Barkerville, and Messrs. Ryan and Shields between carriage of the mails and of freight and passengers will, it is said, probably make \$150,000 to \$200,000 a year. The magnitude of the freighting business can be conceived by the fact that about 150 horses are kept employed on this great route.

ANOTHER BRITISH COLUMBIA RAILWAY MONOPOLY.

BEFORE the row over the British Columbia Government's generous treatment of the British Southern Railway has subsided another outcry has arisen over a Government measure to assist a road designed to open up a mining country in the northern part of the province.

This is the bill to aid the Cassiar Central Railway. This Cassiar country is to a certain extent like the Yukon, a rich gold country of immense area, but difficult of access and dependent upon the coast for supplies for the miners, although it is not by any means as inhospitable as the Yukon. The application for this railway has been made by Warburton Pike, the great hunter, whose travels in the Slave Lake country and success in hunting that most rare animal, the musk ox, have made him as famous in this continent as Selous in South Africa. Formerly it was a land grant that was given to a railway, but people became alarmed, that even with British Columbia's enormous area too prodigal gifts in this way were a waste of what would in time become valuable, so of late years that method has been condemned, and a cash bonus is perhaps the most satisfactory method of assisting railroad enterprise, but the province cannot afford to pay out too great an amount in this way, and yet the situation is that, unless railroads are built, British Columbia, from the very nature of the country, can never be developed, because its rugged surface makes railways imperative to induce settlements in the interior.

The Government has now hit on a plan between the two. They promise to lease for 50 years to the company blocks of land not to exceed 10,240 acres per mile for each mile of road built. For this the railway must pay 1½ per cent. royalty on all precious metals taken out, \$50 a year for each claim taken up, \$100 a year for every transfer of a claim, 50 cents per thousand for milling timber cut, and 25 cents per cord on cordwood, and 5 cents a ton royalty on any coal mined. These railway lands during the term of the lease are open to entry by free miners who, however, must give the company a half interest in any mine they stake out. This, as it will be seen, is a novel proposition, and at first sight seems objectionable and much against the interest of the free miner.

NEWS OF THE MINES.

ONTARIO NEWS.

Lake of The Woods.

(Special Correspondence from Rat Portage.)

Mr. W. A. Laycock left on the 6th inst. with a gang of men to commence operations on the Golden Gate mine. As soon as he has his camps up, he will put on a larger force and will push the work for all it is worth.

The first shipment of ore from the famous Mascot mine, arrived at the local reduction works yesterday (May 7th), and will be run through as soon as everything is in readiness. The samples from this mine brought in from time to time have been very rich, and great results are expected from the run.

Mr. Harry Dixon, who is sinking a shaft on his property on West Hawk Lake, was in town this week, and reports everything in that district as looking very favorable.

Navigation is now open all over, and boats have already been out to Gold Hill and Shoal Lake, and to-day the steamer leaves for Fort Francis. The water is very high just now and the boats are able to go up Ash Rapids.

The opera house is now nearly completed and is really a magnificent structure, and can hold its own with many of those in the eastern cities.

May 8, 1897.

—G. A. P.

A new dock is being built at the Hay Island mine.

Burley Smith has gone to the Yum Yum mine with a diamond drill.

The shaft on the Regina mine is down 260 feet and looks better than ever before.

The Colcleugh Gold Mining Company have had thirty-five tons of ore brought in to Rat Portage from La Mascotte mine to be run through the reduction works.

The shaft in the Olive mine is down eighty feet and the vein is widening. The stamp mill is being completed. Mr. Richards, State Mineralogist of Colorado, it is said, is commissioned to buy Lake of the Woods properties for American capitalists.

W. A. Martel & Sons have published a photograph map of the Lake of the Woods which should prove especially useful to prospectors, as it can easily be carried in the pocket. By the aid of a mineral glass every mark and number is distinctly seen.

A correspondent of the *Winnipeg Free Press* quotes Mr. Silas Griffis as saying that the proposed change in the mining law of British Columbia whereby only British subjects are permitted to acquire mining interests in the province is bound to drive a lot of American capital into the Lake of the Woods district.

The Rat Portage correspondent of the *Winnipeg Free Press* says:—"A rich discovery has occurred on one of the Bullion properties on Shoal Lake. The specimens shown from them are very similar to the Mikado ore, and show any amount of gold in sight. Mr. R. Rodgers left on Saturday for the east, carrying with him several lots of samples of rock which are likely to cause a sensation in that direction."

The Rat Portage *Miner* says:—"The tunnel at La Mascotte mine is now in ninety feet and has cut a vein over twelve feet in width, and although the ore does not show free gold, as it did in the shaft nearer the

surface, samples brought in pan gold freely, and the directors are very enthusiastic over the showing of the property. A number of miners are to be added to the force now at work and sinking on the shaft will be resumed at once."

Up to the present the Princess has been using the commodious camp of the El Diver, which mine was shut down during the winter, but is now starting up again. It was also desirable to get nearer to the work, so that the new Princess camp is situated on the Black Sturgeon Lake. Mr. Collins says that the vein on the Princess is widening out as they get down into it, and the ore is getting richer, and Mr. Deacon, P.L.S., who saw it the other day, says the ore is some of the finest he has come across.

The *Edmonton Bulletin* tells of a queer way of getting to the Lake of the Woods gold fields. It says:—"Jas. Mowat and his father Thomas Mowat and son, all of Lac St. Anne, leave to-day on an overland trip of 1,200 miles, for Winnipeg and Rat Portage. They go by way of Fort Saskatchewan and Beaver Hills, to Duck lake and through the Touchwood hills. From there they go to Fort Ellis in the Qu'Appelle valley and thence on to Portage la Prairie and Winnipeg, which city they expect to reach in about a month. Their outfit will consist of two wagons, a buckboard and twenty-five horses, and their actual destination is the gold fields of Rat Portage."

Mr. Chas. J. Hollands of Fort Francis, writes to the *News* concerning a party of prospectors who he believes lost their lives by starvation on one of the islands of Rainy Lake last summer or fall. He reproduces the statement made by Albert Isherwood, the discoverer of the outfit of the prospectors, as follows:—"On the 15th of April inst., I was prospecting in Swell Bay, in company with my brother and brother-in-law, on the north shore of the bay. I found a large birch bark canoe, turned bottom up, at about high water mark. I also found in the vicinity of the canoe a pair of oars, a sail, a tent, a double-barrel B. L. gun, the stock of which had been broken, and repaired with a plate of copper. The gun was loaded in both barrels; one shell with shot, the other with ball. The canoe was fitted with an inch keel, and a rudder. I also found three small bottles, one containing medicine with a label, "Canniff & Johnson, Rat Portage": the others contained sweet oil and castor oil respectively. There was a complete outfit of grey granite dishes, besides provisions and many small articles that go to make up a prospector's outfit. The tent and sail were rotten, and tore very easily, but the condition of the gun and axe would indicate that the articles had not been there much longer than last summer."

The directors of the Rat Portage Mining Exchange, at a meeting held last week, passed a resolution protesting against any duty being placed on mining machinery. They took the ground that the re-imposition of the duty would do great injury to the work of development.

The Rat Portage *News* says:—"Mr. Neil Campbell, manager of the Ontario Prospectors Mining and Development Co., who have some rich locations near Andrew Bay, has brought back with him from that locality some beautiful specimens in which free gold can be seen as if peppered in the quartz and assaying from \$150 to \$800 to the ton. The veins, for there are a number of them, average from two to four feet wide on the surface and extend for over half a mile. Active

work is being done on the property and a shaft is already down twelve feet. Necessary machinery will shortly be put up.

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Wabigoon and Manitou.

Wabigoon hotels and houses are crowded. Prospectors are going into the Lake Minnetakie country.

A. Whyte, physician and assayer, is opening an assay office at Wabigoon.

Two prospectors, Cecil Crichton, of Toronto and J. O. Johnston, a former purser on the upper lakes, were drowned the other day in Wee Sandy Lake, five miles from Wabigoon, through the upsetting of a canoe.

The *Winnipeg Free Press* correspondent at Wabigoon says:—"Mr. W. Barrett Lennox made his first trip with the steamer Widgeon to the Manitou on the 6th inst., and is now making regular daily trips, leaving here on arrival of the east train at 6.30 a.m. and returning at 3 p.m. Mr. Lennard is prepared to make excursion trips afternoon and evenings."

Mr. Johnston expects to have his new boat ready for her trial trip in a few days. A Fort William steamboat company are also constructing flat-bottom stern wheel boats, which they intend to put on Lakes Wabigoon and Manitou, for the carrying of passengers and freight and will no doubt get their share of the business from this point.

Although \$8,000 was appropriated by the legislature at its recent session for the building and improvement of roads to the south, between Lakes Wabigoon and Manitou, and the construction of a dam at the south end of Big Manitou, to make navigation possible on these lakes, nothing has yet been done, and work has to be stopped on the mines, owing to the inability to get heavy machinery over the roads in their present state.

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Rainy River District.

The *Duluth Herald* gives the particulars of a mining deal by which W. E. Seelye of Brainard sold a property recently in the Bad Vermilion lake country to a syndicate for \$21,000, practically in cash. The property sold is considered a valuable one, and a couple of years ago Seelye, who has been prospecting with the late S. G. Gilman, and his brother Jno. Gilman, discovered it. He bought the interest of the Gilman boys for \$2,500.

The *Rainy River Lake Journal* says:—"It is said 150 men are at Crane Lake awaiting the arrival of the Rainy Lake boats. The boom is surely on here, and the same may be said of the condition of things all over these immense gold fields. One indication of the excitement of the day is shown in the fact that property is rapidly changing hands. Reports reach us of properties that are unsurveyed with only the prospector's reports and samples being taken at figures ranging from \$250 to \$5,000 and in one case for \$10,000. One good feature about the transactions is the readiness of the sellers to retain an interest in the property and to use the purchase money in development. Locations with some development work are bringing from \$4,000 to \$25,000, and a few exceptionally fine pieces have brought higher figures. The region can no longer be considered an experiment. Contact veins are now proved to a depth of over 400 feet in the district and fissure veins to 300 feet. The milling of the ore in every case has

proved them to be essentially free-milling in character, and of the sort to pay handsome dividends. The value of the ores is well distributed throughout the rock, and is not of the sort called "pockety" in other regions. The regularity of the values in the ores, their free-milling character, the super-abundance of water and fuel, together with unlimited water-power, and being situated in the heart of the American continent, all tend to make the Rainy Lake gold fields the Mecca of fortune seekers from all over the world.

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Sudbury.

(From a Correspondent.)

THERE is great activity at present in the Wahnapiatae country. A great number of prospectors are going in and some very rich finds have been made this spring. The Crystal gold mine has its stamp mill completed and will be running in full blast by May 20th. It has about fifty men employed at present. It has sunk a new shaft a short distance to the east of the present ones. The new shaft shows great richness. The Crystal will be a wonderful mine in a very short time. The company expect to get the first gold brick out by 18th of June. It will advertise the country. The Comstock, which adjoins the Crystal, has fifteen men working and has reached a depth of 100 feet in the main shaft, in a large vein of high grade ore. Considerable stripping has been done on the surface, and exposes eighteen different veins at a distance of 150 feet from the main shaft. Fourteen of these veins carry free gold on the surface. This property promises to be a very valuable mine. Drifting has commenced, to tap these veins at a depth of 100 feet, and in course of two weeks the company expects to have one of the largest shows in that part of the country.

Prospects look very bright for mining in Wahnapiatae country this season. The Wahnapiatae Navigation Company have their steamboat running; their hotel is built. The town site, where their buildings and dock are located, is a beautiful place. They have besides the hotel, a store, warehouse, stables and other buildings. D. O'Connor is managing-director. The boat has been kept busy night and day since starting, and promises to have a profitable summer.

C. F. Carmichael has completed the mason work for the plant of the Crystal Gold Mining Co. on Lake Wahnapiatae and operations begin at once.

Mr. D. O'Connor of the Wahnapiatae Navigation and Transportation Co., says the Sudbury Mining *News*, reports operations in the gold country as being very active and the company's steamer has abundance of freight and passenger traffic.

The Myrtle gold mine, belonging to the Webbwood General Mining and Development Co., is situated close to the Spanish River and to the Soo branch of the C.P.R. and about four miles from Webbwood. A shaft has been put in to a depth of 30 feet into a vein of solid quartz 15 feet in width. The yield can be traced across a claim of 40 acres. An assay of \$4.70 in gold and \$2.10 in silver has been obtained and vein matter is getting richer as depth is attained. This company has also several other gold and nickel claims. Surface assay on one gold property shows \$19.10 per ton.

Says the Sudbury Mining *News*:—A reputable gentleman from the Chelmsford district has handed us a surface sample from

a new find discovered by Mr. Smart of Chelmsford. An assay by Mr. J. W. Evans gives 55.24 per cent. carbon, which removes all doubt as to its genuineness and simply confirms the oft repeated statement that there is abundance of coal only a few miles west of us.—The Gold Mining Co. of Sudbury have a coal shaft down 50 ft. and it is fully expected that pure coal will be struck at 65 feet.—Mr. Mennie who has the contract for sinking a shaft on the property of the Citizens Gold and Coal Mining Co., Sudbury has been delayed somewhat by unfavorable weather is now putting on extra force.

The prospectus of the Citizens Gold and Coal Mining Co. of Sudbury says regarding the Chelmsford coal: Some few months ago the whole of Eastern Canada was moved by the reported finding of coal in the district laying to the west of Sudbury. And while eminent geologists have reported for and against it, the outside public has gradually lost interest in the matter owing to the delay in proving it by those interested. With a firm faith in there being a very large deposit of coal in the Chelmsford Valley, the Citizens Gold and Coal Mining Company have been quietly but vigorously extending their operations in that direction, and have already secured a large tract of this land. Sufficient tests were made with a diamond drill to satisfy the company that their faith was not in vain and their enterprise has been rewarded beyond their expectations. After penetrating a bed of slate, coal was encountered at a depth of 76 feet, and continued for the distance the drill was able to go. The work of drilling was discontinued and measures were at once taken to put down a shaft. This work has been under way for some time, and is now being pushed with the utmost speed.

* *
Seine River.

Bernard Macdonald of Butte, Mont., an expert mining man and an author of mining text books, is in Seine River country.

It is said that within a radius of two miles of Mine Centre at the head of navigation on the Seine there are at least 5,000 gold bearing veins.

Dr. Simpson and Charles Patterson, son of Lieut-Gov. Patterson of Manitoba, have gone to Mine Centre. They are connected with the Olive mine, which is putting in machinery.

Three other boats are already navigating the waters between Rat Portage and Fort Frances, while one, the Maple Leaf, runs from the latter point into the Seine River, and she is to be supplemented by another steamer.

Golden Goblin was down 48 feet on May 1st. The vein continues to improve in quality, and the increase of quantity of white quartz which is the richest portion of the vein. The Maple Leaf made her first trip of season from Fort Frances to Mine Centre on May 1st.

A big explosion of dynamite that wrecked all the widow glass at the Ferguson mining camp on the Seine River occurred last week. The men were burning brush and rubbish, and it being very dry the fire got beyond control. The small dynamite house, containing 500 pounds of the explosive, being near the barn, prevented them from extinguishing the fire, and soon that building was consumed. When the flames reached the dynamite house there was an awful roar, that shook up things all around the mine. Fortunately the big dynamite house was some

distance away, and neither the fire nor the concussion of the explosion did any damage to it. No one was hurt.

As another evidence of the confidence the men of the country have in the Rainy River country, it may be said that Messrs. Walter Ross of Rat Portage and George A. Graham of Port Arthur are just placing a large passenger steamboat on the route between Rat Portage and Fort Frances. The vessel, constructed in Toronto by the Bertram Engine Works people, was last week shipped in pieces to Rat Portage, there to be put together and started running by about the first day of June. The boat is to be called the Keenora, this name being made up of the first syllables of the names of the three towns, Keewaydin, Norman and Rat Portage. She will be a two-deck, steel-clad, twin-screw boat, with two triple expansion engines and measurements of 126 feet over all, and 30 feet beam. She will cost, completed \$65,000, have 45 state-rooms, be fitted up throughout with electric lights and other modern improvements, and maintain a speed of 13 knots an hour.

D. M. Blackwood of Mine Centre tells the *World* regarding that place that from the United States, and from England also, prominent men are going in. Mr. James C. Beebe of Cornwall, Beebe & Co., the New York brokers, will, it is understood, take up his permanent residence at Mine Centre, and from the west comes the news that a party of Duluth, St. Paul and Minneapolis men have already, before the waters are clear of ice, started in from Tower, Minnesota. Among others en route to the Seine River country are Mr. J. F. Piggott and two other Kootenay mining men from Spokane, Wash., Byron N. White, of the celebrated Slocan Star silver mine, and Mr. A. E. Hogue, representing wealthy English capitalists. In fact, so fast are outsiders going into the Seine River region that if the influx keeps up half of them will find no place to sleep. But to prepare against such a state of affairs, L. Hamel & Co. and the Mine Centre townsite syndicate are making great efforts. The place already boasts 20 odd buildings, but before the summer is half over it will look like a veritable town. In the next couple of months a large hotel, a postoffice, assay offices, docks, warehouses, general stores and a number of dwelling houses are to be run up. For this purpose Mr. Blackwood, who has been in Toronto and Montreal for the past three weeks making purchases, is sending forward to Mine Centre two car loads of nails and 250,000 feet of lumber, for which he has paid out \$5,000.

* *
Madoc.

What is said to be a valuable find of asbestos has been made on the Jackson property on the Gould road.

Nickel in large quantities is reported near Ormsby in Wollaston township. Development of a copper mine near Baptiste is promising.

J. E. Harrison's reported sale of his actinolite mine on George Peebles' property in Kaladar did not take place. Negotiations with a view to sale to New York parties are proceeding.

A vein of milky quartz with bunches and strings of mispickel and assaying high, has been found on the farm of John Eagleson, south half of lot 13, 10th concession of Madoc township. It extends across the public roads into adjoining lots.

The shaft at the Bannockburn mine which was down recently to a depth of 62 feet is

to be sunk rapidly to 200 feet by the new owners, the Eastern Mining Syndicate. Steam drills are to be put in and the stamp mill fitted up with improvements. The ore thus far is free-milling.

Near Flinton, 16 miles north of Tweed, a large vein of rich mispickel has been discovered, and a Mr. Ribstock of Buffalo is operating it. It is on lot 24, 5th concession, Kaladar, and is traced across the lot and into an adjoining one. Further discoveries of gold are reported in Elzevir and at Glen Lewis five miles from Tweed.

The Ontario Lithographic Stone and Mining Company, composed of Peterborough and Lakefield men, have spent \$1,000 in exploring and development of a deposit of lithographic stone of high quality in the township of Harvey. They have now decided on spending more money to determine whether the mine can be depended upon to furnish stone of the quality and size required by commercial demands. Till more is determined in regard to these points no stock will be put on the market.

The Trenton *Press* says:—"Copper deposits are being developed near Baptiste.—On the Reckett's property near Gilmour a rich discovery of gold is reported.—A ten foot vein of plumbago is reported on D. Mitchell's farm in Marmora township.—A Marmora syndicate has purchased the Hickory mispickel mine near Marmora. One vein 12 feet wide has been traced for a mile.—The Craig vein it is found extends across two lots owned by a Mr. Hungerford. An offer of \$15,000 for the property is under consideration.

The Madoc *Review* says: A deposit of mispickel has been discovered on the property of James Whytock near Madoc. Within a few hundred yards of the above "find" is the rich deposits lately discovered on Mr. Thos. Cross' property, the old Loomis farm. The unusually rich assays have induced the owner to do some development work, and he has now a force engaged in "stripping" and opening the vein. The ore is the same quality, but apparently richer, than that of the Deloro mine, and the indications for an extensive deposit are much more favorable than was that now celebrated mine when first opened. We may confidently hope to see gold reduction works, mills, etc., in Madoc in the near future.

The Tweed *News* says: Geo. Sedore, lot 18, con. 3, Kaladar, has a vein of gold-bearing quartz running across his property. . . David Smith, lot 9, con. 1, Kaladar, has both asbestos and actinolite on his property in large quantities. . . Joseph James shipped a car of actinolite from here to Detroit last week, and a sample order to Rochester for roofing purposes. . . The manager of the Montreal Roofing Company stated to Mr. Joseph James last week that where actinolite roofs are properly put on he would just as soon guarantee them for fifty years as five. This statement coming from such an authority means considerable for the country a few miles north of here, which has vast deposits of this valuable mineral.

The Belleville *Sun* says: A well-known and experienced miner who has just returned from Rossland to North Hastings says: "I have travelled throughout the British Columbia district and I am convinced that North Hastings is a richer field and has more extensive veins than any part of British Columbia. I predict that next year will see a greater boom in Hastings than ever South Africa ever dreamed of." He is too modest to allow his name to be used, but

says: "I have returned to North Hastings to spend the remainder of my days; I know that its time has at last come and come to stay." Two other Rossland miners arrived the past week and are quietly at work looking for choice properties. . . Six companies are now actively at work prospecting, developing or milling in North Hastings and there is a host of individual prospectors also at work. . . At the Craig mine the main shaft is now down some 75 feet and it is getting still wider as it goes down. The small two-stamp mill is doing splendid service, the ore being steadily tested as the work proceeds. The larger mill, it is understood, will soon be placed in position on the Craig. . . The work on the plant to extract the arsenic from mispickel is going on rapidly at Deloro. There are three gangs of prospectors hard at work all the time, but they have not one word for publication as to any of their proceedings.

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East Algoma.

According to the recent report another rich discovery of gold has been made twenty miles from the C.P.R. track near Schreiber. If accounts are right another "Hammond-Folger dyke" has been discovered. The vein is between 50 and 200 feet wide and is said to assay between \$200 and \$300 in gold to the ton. The railroad employes are the lucky owners. The exact location of the vein is not given.

The Sault Ste. Marie *Courier* says:—At the annual meeting of the Webbwood General Mining and development Co., Limited, at Webbwood the following directors were elected: Alex. Beck, Pres., Dr. S. E. Fleming, Vice-Pres., S. F. Beamish, Sec., Dr. G. F. Jones, Treas., Geo. Bayes, Prospector, John Robinson, Manager. They are owners of the Myrtle Gold Mine situated about four miles west of Webbwood, which is showing up very good both in gold and silver. They also have several other good properties under option, some of them assaying very rich in gold and nickle. . . A report is current and comes from a reliable source that a wealthy eastern concern has made the Plutus Company an offer of \$50,000 for their mine. The Great Northern Mining Co., Mr. Beck and others, have big holdings in the vicinity of the Plutus mine, and they each and all are very sanguine about the prospects in that section. . . Work is being actively pushed on the Northern Light claim. Mr. Johnson, the foreman of the Great Northern is sinking on the vein at the foot of the hill with a view to test it deeper down in the solid rock. . . Mr. Wylie, accompanied by Mr. Durham, and under the guidance of the experienced Sam Biron, leaves in a day or two for Goulais Bay district to examine a number of claims for the Great Northern.

COAL AND MORE OF IT.

Another deposit of what is altogether likely to prove to be anthracite coal has been discovered on some of the lands held by the Great Northern Mining Co. When the claim was taken up last winter it was supposed to be a deposit of graphite, but after a sample was tested in the company's assay office here it was found to be a carbonaceous shale. Samples received from Sudbury today contained samples of similar stuff from the coal area being developed by the Citizens Coal Co. and taken from a depth of 34 feet. This material is black with a coal or pitch lustre and is identical with the shale outcropping on the lands of the Great Northern Mining Co. This new deposit is widely

separated from the Chelmsford field, and being extensive and near deep water is of great importance. Of course the upheaving dynamite or the insinuating diamond drill will shortly be put to work to explore this new find. The geological experts will have to reconstruct their theories and explain the occurrence of coal in Ontario by deciding that the Carboniferous rocks have here been subjected to so much heat and pressure as to become altered to such an extent as to deceive even the wisest of men. We, in Algoma, do not care as long as we may dig coal where it is, and find gold where we can.

BRITISH COLUMBIA.

Rossland.

The Rossland Stock Exchange have unanimously protested against the clause of British Columbian mining law that prohibits the grant of miner's licenses to aliens.

The Miners' and Prospectors' Exchange starts with a membership of fifty, and with Ross Thompson as President, and Gen. C. S. Warren as 1st Vice-President, Geo. Owens as 2nd Vice-President, Thos. J. Corrigan, Secretary, and Geo. Owens as Treasurer.

The *Record* says a contract has been let for a 100 foot tunnel in 60-foot ledge on the Iron Duke, which is situated on the west slope of Deer Park Mountain about 4,000 feet west of Deer Park mine. The ledge is supposed to be the Deer Park ledge. Some thirty feet of open cut and tunnel has been done on the top above the railroad.

A very large body of ore, says the Rossland *Miner* has been uncovered on the Little Giant of the Little Giant group on Lookout Mountain. Seven men are at work on the property and while they were clearing away the ground a few days ago for the purpose of starting a shaft they opened a large body of ore, much of it showing like oxidation. An open cross-cut was run from one side of the ledge to the other and it was found to be over 30 feet wide. The solid ore seemed to be over 10 feet wide. Assays made from picked samples went over \$30 in gold and copper. One piece showed 9 per cent. copper. The shaft will be sunk right on the ore. The vein runs east and west and the walls are well defined. Another vein, or perhaps an overflow, crosses the east and west ledge diagonally at the point where the shaft has been started. Lookout Mountain properties are looking particularly well just now, and that portion of the camp will be very active this summer. The Little Giant belongs to the Canadian Mutual Company and is near the celebrated Sovereign.

(From the *Rosslander*.)

Canadian Gold Fields—Tunnel in Sunset No. 2 is in 75 feet, with two perfect walls four feet apart; 35 feet has still to be driven, when the first ore chute will be encountered. All the face of tunnel now is vein matter mixed with ore. Three eight-hour shifts are making three feet a day.

Commonwealth—On May 15th men will leave to do work on the Glenside and Vera group, on the north side of Lardeau River.

Cumberland—At a meeting held on Thursday, April 22nd, it was decided to sink a shaft to the 100-foot level, but before the work starts the five claims on Wild Horse Creek will be thoroughly prospected. An assay of \$20 in gold and 67 ounces in silver was obtained at a depth of five feet.

Daylight, about one and one-half miles south of Crown Point—C. A. Baldwin states:—Five men are running a tunnel

20 feet on the ledge, which, so far, is a large mass of iron ore.

Elsie—Cross-cut tunnel started about four weeks ago now in 100 feet. Two shifts of men are working. The tunnel will tap the lead at 125 feet from the surface in about 60 days. An assay taken last week from ore from the shaft down about 50 feet went \$250 in gold and 115 ounces in silver. Boiler and pump have been purchased, and will be taken in as soon as the snow is off the trail. Native silver has been found in the ore, but no assays have yet been taken from that.

Ethel Group—Five men are working, and on Wednesday, at two feet from surface, uncovered a body of solid pyrrhotite of iron, apparently about seven feet wide. This body will be prospected to ascertain its extent. The shaft, close to the vein, down 30 feet, with a cross-cut. Assays from it went from \$7 to \$12.

Germania—On the Electra the shaft is down 85 feet, with very nice ore. A small streak of five or six inches of ore runs over \$100. A drift has started this week from the hanging wall, which the shaft follows to the foot-wall.

Great Western Mutual—Work will start soon in the Allcome, adjoining the Hattie Brown.

Josie—Two air drills are working on the main shaft, now down 206 feet, and 106 feet below lowest tunnel. Ore being taken out lately runs as high as 30 per cent. copper.

Slocan.

Torontonians, it is said, have purchased 40,000 shares in the Noble Five group, embracing Maude E., World's Fair, Bonanza King, Knoxville, Noble Five, Deadman, Wild Goose and Lucetta for \$25,000.

The property is largely developed—by 8 tunnels, all run on the vein. A large amount of stoping has been done. From August to January 1, aside from developing the mine and exploring new gold bodies, but little work was done, but during that time a tramway 6,100 feet long and a concentrator was installed. This tramway has an elevation of 2,100 feet above the mill. At one point, over the Noble Five slide, the tramway is 430 feet above the ground. The installation of the tramway and mill involved an expenditure of nearly \$40,000, and at the same time \$20,000 was expended in the development of the mine. Since January ore to the value of \$40,000 has been shipped, and there is now 400 tons of concentrates at the mill ready for shipment. The company has 75 men on the pay roll at the mine and in the mill. Owing to the demolishing of a bridge near Cody recently, shipments from the mill have been somewhat delayed. The bridge is now repaired and shipments have resumed.

The New Denver *Ledge* says: C. Wilson, Vancouver, has purchased the B. Fraction, John A. Finch has bought three-fourths interest in the Cultus, and Solomon Cohen, Spokane, a half interest in the Tallahassie. —The Hyderabad, Ten Mile, has been bonded for \$18,000.—The Bachelor group on Twelve Mile has been bonded to the Rossland G. and D. Co. of Toronto. E. C. Clarkson, Toronto, has taken over the Palmita adjoining the Queen Bess, Carpenter Creek, at \$20,000.—The Reith has been working with a force of 56 men.—G. A. Farini, London, Eng., is bonding Twelve Mile properties; the Get There Eli at \$12,000, and the Bachelor at \$12,500. R. B. Prennett of Victoria, has bought the Stormont and Colorado Beetle.—The St. Lawrence and Northumberland have

passed to Osborne Plunkett, for \$12,000, and a company called the Slocan Mines Co., has been formed in Vancouver to work them. The capital is \$50,000 with shares of a par value of 5 cents each.—At the Alma in the Arlington basin the crosscut when in 70 feet tapped the lead at a depth of 40 feet and found 9 feet of concentrating ore between walls. The first 3 feet cut by the tunnel will concentrate 2 in 1, while the balance will give 6 in 1. The strike is of importance to the Springer Creek country.

Nelson.

Nelson business men are agitating for a Board of Trade.

J. N. Blake leads a Quartz Creek firm in the contention before the courts in favor of people who have taken up land there, against the railway, whose rights to this land he says have been forfeited.

The Nelson *Miner* says: Messrs. J. A. and W. B. Honeyman, principal owners of the Union Iron Works and the City Foundry of Portland, Ore., have decided to erect a foundry and machinery shops in Nelson. They expect to be ready for business within the next forty days. Work has already commenced on the foundation of the building. Its dimensions will be 50x60 feet, and there will be several small additions and out-buildings. The plant will cost between \$10,000 and \$12,000. About twelve machinists will be given employment as soon as the firm is ready to receive orders. The machinery will be brought from Portland. The plant will make iron and brass castings, manufacture boilers, mining and steamboat machinery and perform general machine manufacturing and repairing.

The Hall mines smelter at Nelson, superintended by Paul Johnson, is completing a new blast furnace with a capacity of 250 tons a day. The old furnace treats 130 tons. There are no reverberatory furnaces at Nelson. Mr. Johnson believes in blast furnaces which he thinks simpler and more economical. A refinery is also being constructed so that shipping the matte away to the United States to be refined will soon be discontinued. This refinery will take the matte as it comes from the furnaces and make it into blasted copper which will be sent to Swansea. Silver lead ore is also to be smelted at the Nelson smelters. Mr. Johnson believes that most of the low grade ore of the Rossland camp can be treated more economically by smelting than by any other process, if cheap fuel can be obtained. With coke and coal at \$5 a ton he thinks the low grade silicious ores of Rossland can be treated at less cost than by milling and concentration.

QUARTZ CREEK.

We condense a long account of Quartz Creek given by the Rossland *Miner*. Six months ago Quartz Creek town had a water tank and nothing more; now it has about 350 inhabitants. It is on Salmon River at the mouth of Quartz Creek (nearer Nelson than Waneta) which is a mountain torrent of about the size of Trail Creek, and could be by gravity supply with water a town of several thousand people. Wild Horse, Bear Creek and Porcupine Creeks all fall into the Salmon River within two miles of the mouth of Quartz Creek, and all have mining properties on them and the trails up there will all have to concentrate at the new town. Tributary to Quartz Creek is the well known Elise mine on Wild Horse, with a pay streak 18 inches to 3 feet wide and a shaft down 81

feet and a cross-cut being made to cut the vein at a depth of 125 feet and connect with the shaft. Near the Elise are the Blackcock and Ymir. On the latter about 1,000 feet of development has been done, and hundreds of tons of ore are on the dump. The predominant value in these two mines is in gold though both carry galena. The Dundee, 2½ miles east of the town has 5 feet of ore at the 100 foot level and machinery will probably be in soon. Blue-eyed Nellie 1½ miles from town on Porcupine Creek has little development. Near by is the Porcupine now bonded for \$60,000 and with both sulphide and galena ores. The Tamarack group is 2½ miles north-east of Quartz Creek, The Ajax adjoins. The Ivanhoe and the Belle, southwest of the town, the Tennessee northwest, the Blue Jay, Mollie F, and Last Chance are also near the town and like the other properties mentioned are considered valuable.

Kamloops.

No fewer than 124 claims were registered at Kamloops during the week ending May 4th.

H. McCutcheon, at Toronto, has wired instructions to start work on the Sunshower claim.

On the Noonday claim a ledge three feet six inches has been exposed, and a six foot ledge is in view on the Christmas. The properties, free-milling, are owned by Dr. Hall and J. H. Mitchell.

Cariboo.

BARKERVILLE.

We condense from the Kamloop's *Inland Sentinel*, the following Barkerville items: The Dunlevy Company on Big Valley Creek, is reported to have a good prospect in a shaft at 45 feet. Six or seven miles of the creek has been leased by Vancouver and Victoria men. . . Windle and Campbell are ready for hydraulicking in Little Valley Creek. . . From the upper end of Eight-Mile to the foot of Nine-Mile Lake gold is found. . . Three Flynn Brothers, from Eastern Canada, are to hydraulic on Mosquito Creek. . . Wintrop Brothers are on Stout's Gulch where they made money last year. . . Try and Johnston, on Hard Scrabble Creek, and W. Anderson on Cunningham Creek, the Black Jack Hydraulic Company, opposite Barkerville, and the Cariboo Gold Field's Company, on the Eye Opener property, are starting to hydraulic. . . The Thompson and Marsh group of quartz claims scattered around the hills are bonded to French capitalists and are being worked.

Boundary.

The Minnehaha Co., which is operating in Boundary Creek districts and has a mine of the same name in Camp McKinney, has struck at the bottom of the shaft a 7 ft. vein of free-milling ore. The Midway *Advance* says that when the snow had just cleared off the foot-hills prospectors went to work with the result that 50 claims were recorded in one week.

Vernon.

The Morning Glory Mining Co. have started drifting into the Sarah claim, the new claim which has produced assays of \$200,000 at the surface.

The Camp Hewitt Mining Co., says the *Vernon News*, have released the contractors from their contract to sink 50 feet on the

Gladstone shaft as the water is coming in so rapidly as to make operations impracticable. They will tunnel instead.

**

Pannings.

On Tranquille Creek, the Tranquille Creek Hydraulic and Quartz Mining Company, is to hydraulic the extensive lease worked by James H. Russell during two past years. Mr. Russell obtained 42½ cents per cubic yard with inadequate sluicing. The engineer's estimate of contents of the grant in the leased claim is 700,000 cubic yards.

PLACERS OF THE YUKON.

There was quite a gathering of friends and relations at the C. P. R. depot one evening recently, says the *Winnipeg Nor'wester*, to say good-bye to three popular young men who were leaving for the Yukon country. The young men are: Colin Inkster, son of Sheriff Inkster; A. McKay, son of Dr. McKay, of Athabasca; and A. C. Clare, son of the late Chief Factor Clare, and their objective point is Klondyke Creek, where they will join a former schoolmate, McDonald, who spent the past winter out there with the Ogilvie survey party. From here they go to Vancouver, thence to Victoria, where they take the Canadian Pacific Steamship and Navigation Company's boat to Juneau, Alaska, and from there to Dyed, a short distance in the mountains, and from there by dog train across Chilcote pass to the lake, where they will have to buy if possible, and if not, then build a boat with which to cross the lake of about two miles, and thence on down the Yukon. The latter part of the journey, in particular, will be delightful. As the Yukon is said to be one of the most beautiful rivers on the continent, being without a single obstruction. The voyagers have with them provisions sufficient to last for nine months, and they expect to be about six weeks making the journey. The expense of making the trip and securing supplies will amount to about \$200 each. If all goes well these young men expect to be absent from here two and three years, at the end of which time they hope to return with gold "to burn," as the Americans put it. They will meet the Ogilvie party, who have had to remain out there all winter, owing to the snow coming on suddenly. The lowest point reached by the thermometer during the last winter was 45 degrees below zero; but the weather during the most of the year is very pleasant. The greatest drawback is the terrific expense of obtaining provisions. Flour is \$30 a sack, and beefsteak is—well you can pay any price for it, and indeed the people out there are willing to do so. There are, however, compensating conditions. For instance, laborers are paid \$1.25 per hour, and men have been known to make as much as \$2,000 in a single day digging gold. It is to be hoped that good luck will be the reward of these young men now well started on their long journey. A body of mounted police, under command of Sergeant Scarth, left by the same route on the 14th inst., and they will join Inspector Constantine's forces there.

A very large electric power plant is to be provided for the Alaska-Treadwell and Alaska-Mexican mills, Douglas Island, Alaska, and also for the Alaska United mill, which is to be erected between the two. It cost the Treadwell and Mexican mines about \$100,000 for coal this winter owing to the water shortage and cold weather and some of the stamps had to be hung up because of an insufficient supply for the batteries. They intend to prevent a recurrence of this by putting in electric power. The two dynamos will be of 5,000 h. p. each and will be put up on Lemon creek, six miles north of Juneau.

NORTH-WEST TERRITORIES.

THE new mining regulations, which were passed on the 17th ult., have been received by the Dominion lands agent here, says the *Edmonton Bulletin* of the 29th ult. According to instructions received by Mr. Ruttan, though claims may be staked in accordance with the new regulations, yet no registrations or entries can be made by him until after the new regulations have been published for four weeks in the *Canadian Gazette*. The miner, however, may stake a claim and make application therefor, and such application will have the effect of securing him priority and preference to such claim. The department further state, that, while the regulations have been carefully compiled in the hope that they would give general satisfaction, they will be pleased to receive and consider any intelligent suggestion for their amendment.

TAPPING OUR GOLD FIELDS.

IF the Canadian authorities, says the *Rainy Lake Journal*, grant aid toward railroad construction, as now seems more than probable, it is certain that the railroad men at Duluth will not sit idly by and allow the trade of this vast new empire to go to Winnipeg and Toronto, and especially when it is practically within only a stone's throw of the Zenith city.

The point that American railroads will head for is, of course, at present problematical, and depends a great deal on what may be done on the Canadian side. But one thing may be set down as certain, and that is that they will strike the navigable waters of Rainy Lake somewhere either 10 miles east or 10 miles west of this city, if not right at Rainy Lake City. It is not at all likely that either of the American companies will think of crossing the boundary, at least not for a time. Indeed, it is not necessary for them to do so, in order to control almost the whole of the traffic to and from these gold fields, no matter what may be done by the Canadian Pacific or other railways over the boundary.

One of the most potent factors that will establish and facilitate competition in freight rates that will benefit the mining interests of the Rainy Lake, Seine River and Lake of the Woods districts is the completion of the lock at Fort Frances. When that is done the monopoly of the transportation business now held by the Canadian Pacific Railway will be broken, and this region will no longer be subjected to exorbitant freight charges, from which so far there has been no escape. Viewed in this light the completion of the Fort Frances lock will be a godsend to everyone interested in the gold fields; for, with continuous navigation established from Rainy Lake to Lake of the Woods, it is a foregone conclusion, that all the heavy mining machinery to be used here, even though it were manufactured in Canada, could be loaded on the boats at Toronto and shipped to Port Arthur or Duluth, then carried by rail to Sturgeon Falls or Rainy Lake City, put on boats again and carried down stream all the way through the dangerous rapids above and below the lock at Fort Frances, cheaper than it would be possible for the C.P.R. to carry it by rail to Rat Portage. Then, too, it is safer to transport heavy freights down through the rapids than it is to attempt to take such goods up the stream, as nearly every steamboat man on these treacherous waters has learned to his cost and sorrow. It will thus be seen that a railway striking the navigable waters of Rainy Lake at this city will be in a position to command the entire traffic of the gold fields, as it is accessible for steamers engaged in traffic of the Seine River, Manitou and Lake of the Woods gold fields.

TRAIL CREEK AND SLOCAN.

THE FORMER FOR BIG CAPITALISTS—THE LATTER FOR POOR MEN.

MR. P. A. O'FARRELL, writing to the *Vancouver World*, has the following to say with regard to the Trail Creek and Slocan districts:

There is not a shadow of a doubt but that in the hills and mountains of Trail Creek exist bodies of ore so immense and so rich, that the Trail Creek camp will eventually be one of the greatest gold producing camps on this continent, but it is idle to conceal the fact that two years' experience has demonstrated that large capital will be needed to make the mines of Rossland profitable and rich producers. The man or the concern which undertakes to mine successfully in the Rossland district must be provided with a working capital of, at least \$50,000, otherwise there will be difficulties, disappointment and losses. The Deer Park mine, for instance, has fabulous possibilities. There is no doubt that millions upon millions of gold will be rescued from the Deer Park vein. It has the greatest showing of mineral that has yet been revealed in British Columbia, but \$30,000 will be needed for the development of this mine before it will pay dividends to its stockholders. Those stockholders who can hold their Deer Park stock until that amount of money has been used in development will find that they are stockholders in one of the great bonanza mines of the West. What I say of the Deer Park is still more true of the mines like the St. Elmo, Monte Cristo, Commander, Great Western, Homestake, Gopher, Evening Star, Nest Egg, Jumbo, California, Cliff, Iron Horse, Iron Colt and the Sunset; each and every one of these properties possess ore bodies of immense extent and value, but capital is needed to take these ore bodies out of the ground, concentrate and smelt them. There has been considerable disappointment in the Trail Creek country owing to the fact that several excellent prospects have been gotten hold of by men without capital, and without the influence to procure it. This is true of at least 50 or 60 mining companies, organized to operate in the Trail Creek country, and the best advice I can give to intending investors is to be careful of their money and to be sure that they invest in and co-operate with mining men of experience and first-class financial standing.

"The Slocan country is attracting more interest at the present time than Trail Creek. The Slocan is a poor man's country, while Trail is a country for big capitalists. The ledges in the Slocan are lead and silver, and the prospectors are enabled in a multitude of instances to take ore out of the ground to pay for mining and development without seeking for further capital. It must be remembered that the Slocan and East Kootenay possess the richest lead and silver ores ever yet discovered. Mining men in Colorado, Utah and Idaho have made enormous fortunes through lead and silver mines, but the most experienced mining men of these States tell me that no such deposits of lead and silver ore have ever yet been found in any quarter of the globe to compare with those of the Slocan and East Kootenay."

The Tinhorn Company, whose claim is situated in Fairview, Okanagan, have sold 165,000 shares of treasury stock. A town is springing up at Fairview. The Tinhorn is to be worked for a dividend in less than two weeks.

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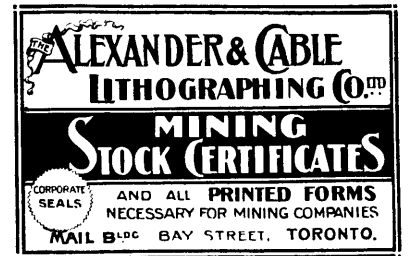
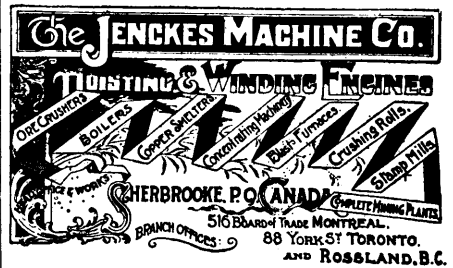
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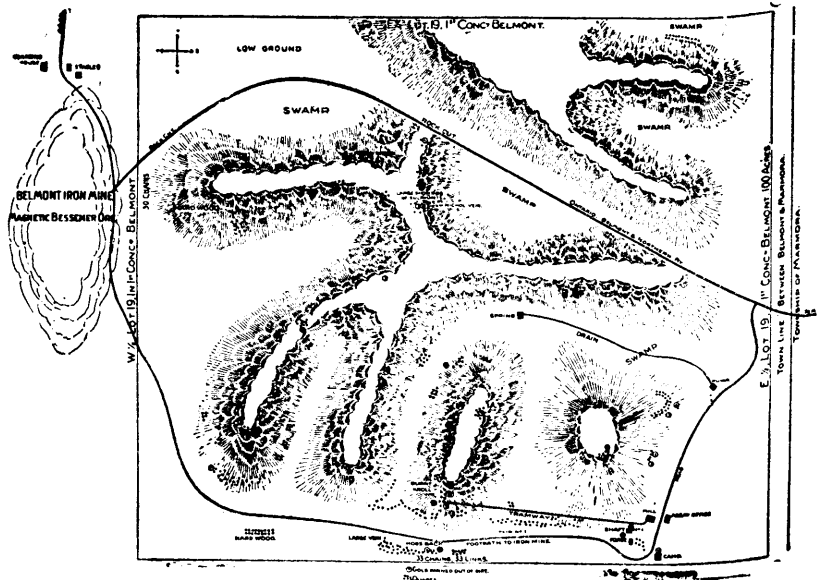
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The mines of this Company are located at Princeton, B.C., and consists of 640 acres of rich gold bearing gravel benches and water rights to 3,000 miner's inches. Experienced engineers who have examined this property declare it to be one of the finest Hydraulic propositions in British Columbia.

10,000 SHARES NOW OFFERED TO THE PUBLIC AT PAR.

COMPANY'S OFFICE: 56½ King Street East, TORONTO, ONT.

ARMSTRONG & MORRISON

(Successors to D. MCGILLVRAJ)

MANUFACTURERS OF ALL KINDS OF

Steel and Iron Hydraulic Mining Pipe.

Estimates furnished of cost of Power Plants, and putting Water on Mining Claims, Monitors, Gates, Valves, Pelton Wheels, etc., furnished at shortest notice and lowest rates.

Steel Pipe Works, - VANCOUVER, B.C.

THE

ROYAL ELECTRIC CO.

MONTREAL, QUE.

Western Office, TORONTO, ONT.

..MANUFACTURERS OF..

ELECTRICAL MACHINERY AND APPARATUS

..SOLE MAKERS FOR CANADA OF..

The S.K.C. Two-Phase System

OF

Alternating Current Generators, Motors and Transformers

By means of which incandescent lights, arc lights and power can be served from the same dynamos and circuit.

Direct Current Dynamos

Arc Light Dynamos

Direct Current Motors

Arc Lamps, Series or Multiple

Street Railway Generators

Wire of all kinds

Street Railway Equipments

Electrical Supplies

CANADIAN AGENTS FOR

THE ROYAL BEACON Incandescent Lamp.

THE HELIOS ARC LAMPS, Alternating or Direct.

For Central Stations, Street Railways, Power Transmission, Isolated Plants, Mining and Mill Work.

Correspondence Solicited

BONDS

— OF —

STEAM, HORSE or
ELECTRIC RAILWAYS
WATER WORKS

Or Towns placed at
shortest notice.

Companies promoted to take over good Mines,
or will buy them.

**Manhattan Investors and
Securities Company**

(LIMITED)

17 and 19 BROADWAY

NEW YORK CITY

El Padre, NEEDLES, 10c.

VARSAITY, - - 5c.

**THE TWO STANDARD
BRANDS OF CIGARS**

S. DAVIS & SONS

MONTREAL

PRIZE MEDALS IN COMPETITION
WITH THE WORLD

Rathmullen

CONSOLIDATED MINING AND DEVELOPMENT

COMPANY (Limited)

Incorporated under the Imperial Act, 1862.

ROSSLAND, B.C.

Authorized Capital Stock \$2,500,000, in Shares of \$1 Each, par value.

1,000,000 Shares in Treasury.

Vendors' Shares pooled up to August 15, 1897.

LIST OF OFFICERS AND DIRECTORS:

President and General Manager—W. C. McDOUGALL, Rossland, B.C.
 Vice-President—Dr. H. D. BURRITT, Rossland, B.C.
 Secretary-Treasurer—J. M. O'TOOLE, Rossland, B.C.
 W. D. McMILLAN, Rossland, B.C. A. W. FRASER, Rossland, B.C.
 W. J. WHITESIDE, Rossland, B.C.
 Superintendent of Company's Mines—C. S. NEILSON, Rossland, B.C.
 Consulting Engineer—HARRY GAGER, Rossland, B.C.
 Solicitors—ELLIOT & WHITESIDE.
 Bankers—BANK OF BRITISH NORTH AMERICA.

PROPERTIES.—The Company own outright, free of all claim and good title, a group of TWELVE claims, aggregating six hundred acres, in the famous Kettle River mining division of Yale District, B.C., viz.:

**Rathmullen, Glasgow, Trafalgar,
 Westward Ho, Lansing, Ben Hur,
 Malta, Rob Roy, Gibraltar,
 Helen Ray, Ione, Nannie F.**

SCOPE.—The operations of the Company are not to be confined to the twelve which they now own. It has the fullest possible powers through its charter of a development company in the broadest sense.

Extracts from report of Mr. Harry Gager, mining engineer (whose full report appears in prospectus):

There are at least six well-defined veins running through this group, varying from six to one hundred and thirty feet in width, some of which have been traced for over a mile. * * * The vein in the Glasgow was cross-cut from the footwall for a distance of one hundred and thirty feet without encountering the opposite wall of the ledge. * * * In my opinion it is only a matter of development when the Rathmullen group will rank among the best, as it is at present among the greatest in extent, of British Columbia mining properties.—February 17, 1897.

Extracts from report of C. E. Huff, M.E. (full report in prospectus):

I wish to say, in conclusion, that I have examined this group closely, and find the trend of the formation and ledges which show up on the property to be in a direct line through the Rathmullen group, from Brown's Camp to Summit Camp, and that my investigation has brought me to the conclusion that at least

Six of These Twelve Claims will Make Mines.

While ore undoubtedly will be found on every claim within the group, I have not during my thirty years' experience in the mines of Western America examined a property that I can more emphatically recommend as a safe investment than the property of the Rathmullen Consolidated Mining and Development Co., Ltd., North Fork of Kettle River, B.C.—Feb. 16, 1897.

The Company offers for a few days THE FIRST issue of TREASURY STOCK at 12½c. per share, fully paid and absolutely non-assessable. Purchasers of this block will have the full benefit of the raise in price sure to take place in the Company's stock, as a limited number of shares only are to be sold at this figure.

Stock will be issued in the order in which applications are received.

All applications for stock or information should be addressed to the Company's broker,

WM. C. FOX, Mining Broker,

Telephone 2765

21 Adelaide Street East, Toronto

THE CANADIAN MINER.

AUTHORIZED STOCK BULLETIN.

Name of Stock.	Authorized Capital.	Par Value.	Market Price.	Name of Stock.	Authorized Capital.	Par Value.	Market Price.
Allison Ranch Hydraulic Mining Co.	\$250,000	\$5 00	\$5 00	Kootenay-Cariboo Mining and Investment Co.	2,500,000	\$1 00	\$0 25
Alberta	1,000,000	1 00	0 10	Kootenay-London	1,000,000	1 00	0 12½
Alf	1,000,000	1 00	0 10½	Lake Harold	1,000,000	1 00	0 15
Arlington Con.	1,000,000	1 00	0 10	Ledyard	1,000,000	10 00	2 50
Bannockburn	500,000	1 00	0 20	LeRoi	2,500,000	5 00	7 50
Big Three	3,000,000	1 00	0 10	Lily May	1,000,000	1 00	0 20
Bondholder	1,000,000	1 00	0 11	Lloyd Gold Mining and Dev. Co.	1,000,000	1 00	0 08
British-Canadian Gold Fields	2,500,000	1 00	0 12	London Hill Min. & Dev. Co.	150,000	0 25	0 25
Butte	1,000,000	1 00	0 03	Mabel	1,000,000	1 00	0 15
Caledonia Con.	1,000,000	1 00	0 05	May Flower	1,000,000	1 00	0 10
California	2,500,000	1 00	0 15	Mikado	£250,000	£1	7 50
Canada Mutual	2,500,000	1 00	0 15	Miller Creek (Slocan)	\$1,000,000	1 00	0 07½
Cariboo M. C. Co.	800,000	1 00	0 48	Mines Dev. Co.	2,500,000	1 00	0 10
Colonna	1,000,000	1 00	0 24	Minnehaha	1,000,000	1 00	0 15
Colorado	1,000,000	1 00	0 09½	Monarch	1,000,000	1 00	0 10
Columbia and Ontario	750,000	1 00	0 15	Monita	750,000	1 00	0 14
Commander	500,000	1 00	0 20	Monte Cristo	1,000,000	1 00	0 12
Consolidated Sable Creek	1,000,000	1 00	0 10	Montezuma	1,000,000	1 00	0 07½
Confederation Mines Dev. Co.	2,500,000	1 00	0 10	Morning Star	1,000,000	1 00	0 07½
Cornucopia	£100,000	£1	7 50	North American Mining Co.	2,500,000	1 00	0 20
Cracker Jack	\$1,000,000	\$1 00	0 09	Norway	1,000,000	1 00	0 06
Crown Point	1,000,000	1 00	0 48	Novelty	1,000,000	1 00	0 10
Deer Park	1,000,000	1 00	0 17½	Old Flag	1,500,000	1 00	0 10
Dellie	750,000	1 00	0 15	O.K.	1,000,000	1 00	0 24
Eagle Nest		100 00	15 00	Old Ironsides	1,000,000	1 00	0 07½
Eastern Mining Syndicate	1,000,000	1 00	0 09½	Ontario Gold Fields	1,000,000	1 00	0 08½
Eldon	1,000,000	1 00	0 10	Ottawa and Ivanhoe	250,000	1 00	0 12½
Elsie	1,000,000	1 00	0 08	Phoenix	500,000	1 00	0 15
Empress	500,000	1 00	0 21	Pug	1,000,000	1 00	0 11
Enterprise	1,000,000	1 00	0 20	Princess	500,000	1 00	0 25
Ethel Group (Preferred)	1,500,000	1 00	0 75	Poor Man	500,000	1 00	0 07½
Eureka Con.	500,000	1 00	0 10	Rathmullen Con. M. & Dev. Co.	2,500,000	1 00	0 12½
Evening Star	1,000,000	1 00	0 15	Red Eagle	1,200,000	1 00	0 08½
Exchequer	1,000,000	1 00	0 10	R. E. Lee	1,000,000	1 00	0 08
Foley	1,000,000	5 00	3 50	Rossland Gold Mining and Dev. Co.	2,500,000	1 00	0 11½
Germania	1,000,000	1 00	0 20	Rossland Red Mountain	1,000,000	1 00	0 25
Gertrude	500,000	1 00	0 12	Roslyn Gold Mining Co.	1,500,000	1 00	0 12½
Gold Bar	2,500,000	1 00	0 07	Royal Five	1,500,000	1 00	0 10
Gold Exploration Co	1,000,000	£1	5 00	Santa Marie (Slocan)	1,000,000	1 00	0 06
Gold Hills	1,000,000	\$1 00	0 10½	Saw Bill			2 65
Gold Quartz	2,000,000	1 00	0 10	Silver Bell	1,000,000	1 00	0 08
Gold and Silver Mines Dev. Co.	1,000,000	1 00	0 20	Silverine	500,000	1 00	0 10
Golden Cache	500,000	1 00	1 84	Slocan Cariboo	1,000,000	0 10	0 10
Golden Gate Mining and Dev. Co.	300,000	1 00	1 00	Slocan Star	1,000,000	0 50	2 63
Good Hope	500,000	1 00	0 10	Smuggler	1,000,000	1 00	0 19
Great Western	1,000,000	1 00	0 15	Spokane-Kaslo	900,000	1 00	0 10
Great Western Mutual	2,500,000	1 00	0 15	St. Elmo	1,000,000	1 00	0 07½
Hansard	1,000,000	1 00	0 10	St. Paul	1,000,000	1 00	0 12½
Heather Bell	1,000,000	1 00	0 20	Sweden	500,000	1 00	0 25
High Ore	500,000	1 00	0 04	The Canadian Min. Co. of Colorado	500,000	1 00	0 20
Homestake	1,000,000	1 00	0 08	The Industrial Mining and Dev. Co.	250,000	1 00	1 00
Ibex	1,000,000	1 00	0 03½	Two Friends	240,000	0 30	0 23
Ibex of Slocan	300,000	0 25	0 30	Victory Triumph	1,000,000	1 00	0 08
Investors Prospecting G. and M. Co (Cripple Creek)	1,250,000	1 00	0 10	Virginia and Trail Creek	500,000	1 00	0 13
Iron Colt	1,000,000	1 00	0 20	Waneta	1,000,000	1 00	0 10
Iron Mask	500,000	1 00	0 45	War Eagle (Con.)	1,000,000	1 00	0 99
Iron Queen	1,000,000	1 00	0 04	Washington	1,000,000	1 00	0 26
Josie	700,000	1 00	0 45	West LeRoi and Josie	500,000	1 00	0 23
Josie Mack	1,000,000	1 00	0 12½	White Bear	2,000,000	1 00	0 10
Jumbo	500,000	1 00	0 60	Winnipeg and Eureka	1,000,000	1 00	0 10
Kelley Creek	1,000,000	1 00	0 15	Yale	1,000,000	1 00	0 02
				Zilon	1,000,000	1 00	0 15