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Canadian Mining Review.

ANNUAL SUBSCRIPTION - - - \$1.00
ADVERTISING RATES—15c. per line (10
lines to a line).

OFFICE:
Ed CHAMBERS, 14 Metcalfe Street.

in, 1882, number of the
Canadian Mining Review is the first
number issued under a new manage-
ment. It is the intention of the
publishers to continue the publica-
tion of the REVIEW as a monthly
paper, devoted to the mining inter-
ests of the Dominion of Canada;
and attention, however, will be
given to the mining industries in
the Ottawa Valley and Manitoba, as
may be seen by the articles appear-
ing in this number. Information
concerning Canadian Mines and
General Lands is respectfully solicit-
ed by the publishers, who assure
respondents that all reliable in-
formation of this nature will find
place, without prejudiced comment,
in the columns of the REVIEW. This
paper has an extensive circulation
throughout the Dominion of Canada,
the United States, in Great
Britain and in Europe, and one of
its objects is to bring the owners of
mineral and other lands into closer
connection with capitalists seeking in-
vestment, with a view to the speedy
development of Canadian mines;
and in order that our aim in this
direction may be attained, a liberal
support from both parties will be
deemed necessary. The advertising columns
of the paper are always open to
those who have properties for sale,
to intending purchasers, as well
to merchants generally; dealers
in machinery and mining supplies
find in the REVIEW a valuable ad-
vertising medium.

Address all Correspondence
to the Publishers, CANADIAN MINING
REVIEW, Ottawa.

We wish to call attention to the
advertisements in another column,
mineral lands for sale. True re-
ports of all properties mentioned
therein will be forwarded, on appli-
cation, by the publishers of the
REVIEW.

PHOSPHATE MINING.

This is becoming a most impor-
tant industry in the vicinity of
Ottawa, and has already developed
to such an extent that it is difficult
to say how soon it may throw the
lumber interests completely in the
shade. It is not many years ago
that this mineral was comparatively
unknown to the inhabitants of the
Ottawa Valley, while to-day there
is an activity prevailing at mines
throughout the phosphate district
that would do credit to a people
who had spent their lives in a
mining camp.

During the past winter the road
on the ice of the Rivière du Lièvre,
leading to Buckingham Station on
the line of the Canadian Pacific
Railway, presented a busy scene,
such as had never before been wit-
nessed in that locality. Hundreds
of teams were engaged in hauling
phosphate from the various mines,
and by the time the ice gave way
on the river, and hauling became
impracticable, no less than 10,000
tons of first quality ore, running as
high as 85 per cent. of phosphate
lime, besides many hundred tons of
second quality (60 per cent.) had
been delivered at the station ready
for shipping. In addition to this,
about 1,500 tons in all were deliver-
ed at the Templeton Station on the
line of the same railway. This far
exceeds in quantity the output of
any former year, and is attributed,
mainly, to the prevailing high price
offered for ore, and to the fact that
many of the most productive prop-
erties have fallen into the hands
of English, French, and American
companies.

The great drawback experienced
heretofore by those engaged in
mining was the want of capital to
prosecute operations to advantage.
Mining had to be carried on during
the whole year, while delivery of
the output could only be made in
winter, thus necessitating a con-
tinuous drain on the funds of the
miner for nearly nine months.

The promoters of the enterprise
in the County of Ottawa were not
men of means, but, for the most
part, farmers and men of limited
resources. To-day the more valu-
able developed properties are con-
trolled and worked by capitalists,
who are conducting their operations
on an extensive, though economical,
scale, producing the ore at a mini-
mum of cost, employing an enor-
mous amount of local labour, and
later on, for the country, and

reap-
selves; so
and correspon-

the phosphate zone
County of Ottawa extends
west boundary of the Town
Hull, about 8 miles north from the
Ottawa River, and, following a
northeasterly direction,
through that township and the
townships of Wakefield, Templeton,
East and West Portland, Bowman
and others north and east of those
named. This belt is from 8 to 10
miles in width, and is clearly de-
fined in the maps and in the reports
published by the Canadian Geolo-
gical Department. There is ample
field for many times the amount of
capital now employed in this dis-
trict, and virgin properties are yet
to be had that will, without doubt,
equal in richness any of those at
present in operation; all they re-
quire is developing, and, to accom-
plish this, capital alone is necessary.

It has been estimated that the
cost of mining and delivering the
mineral at different points for ship-
ment varies from \$4 to \$7 per ton,
according to the location of the
mine and the nature of the deposits,
and, as the price paid for the high
grade ore is about \$21 per ton at
the railway station, it may be seen
what a handsome profit is derived
by those engaged in mining. It is
claimed for the Canadian apatite
that it is of a superior quality to
that found in any other part of the
world, on account of its purity and
for its high percentage of phosphate
of lime. Specimens of it were ex-
hibited at the Centennial Exhibition
in Philadelphia in 1876, and attract-
ed considerable attention from those
familiar with the mineral. Many
specimens were also exhibited at
the Paris Exposition in 1878, and
some phosphate crystals, sent there
by a gentleman of Ottawa, were
eagerly bought up by English and
French merchants engaged or in-
terested in the manufacture of fer-
tilizers, and preserved by them as
rare curiosities; some of these crys-
tals weighed as much as 800 lbs.

In France, Spain, Norway, the
West Indian Islands and in South
Carolina, phosphate mining has
been carried on for many years.
Canada may now be added to this
list. Her output for the past 5 years
having been as follows: in 1878,
3,701 tons; 1879, 11,927 tons;
1880, 1,974 tons; 1881, 15,601
tons; and in 1882, 17,191 tons.
These figures cover the entire out-
put from all parts of Canada where

the C.
ation
nearly deliver.
station, it is expect-
3,500 tons will be forward-
the mines during the summer,
of the mines being so situated as to
render delivery practicable at any
season of the year. This argues
well for the future of Canada as a
phosphate producing country, and,
judging from the rapid progress
made during the past three years in
the development of the apatite de-
posits in the Ottawa Valley, there
remains little doubt that this
Dominion bids fair to become, at no
distant day, an important competi-
tor in supplying the markets of the
world with this valuable mineral.

The latest advices of the ruling
price offered for Canadian phosphate
in England quotes it at 1s. 4d. per
unit for 80 per cent. phosphate of
lime, with one-fifth of a penny rise
per unit for shipments overrunning
80 per cent. This, for 85 per cent.
mineral, would be equal to \$30 per
ton of 2,240 lbs.

The Coxheath Copper Mining
Company of Nova Scotia, composed
of Boston capitalists, has had
samples of ore assayed by two well
known assayers who report value
as follows, including a fair per cen-
tage of silver—No. 1, \$104.58, No.
2, \$106.90 per ton. It is now
stated that a regular output of ore
from the Coxheath mine has been
begun and that there will be no
difficulty in raising from fifteen to
twenty tons daily of 5 to 10 per
cent. ore.

N.B.—The Austin Mine on Echo
Lake is capable of a daily produc-
tion of from one hundred to one
hundred and fifty tons of ore, yield-
ing 10 to 12 per cent. of copper.
Surely this property should be a
mine of wealth to the stockholders
if mining operations were carried on
under proper management.

The contribution of Arizona to
the world's stock of the precious
metals from 1850 to the close of
1882 is approximately estimated as
follows: Silver, \$28,770,000;
gold, \$1,235,427, making a total of \$29,995,427.

but not patented, the duties not being payable, the sale may be cancelled and be paid for in full at the location. Sec. 12.

Locations, which may extend up to four hundred acres, or, in special cases, eight hundred acres, may be acquired by addressing a letter to the Commissioner of Crown Lands, specifying the lot or lots required, and transmitting at the same time:

1. The full price of the location at the rate of three dollars per acre, if it is to be mined for phosphate lime (this price was fixed by O. C. of 23rd of March, 1881); two dollars per acre, if it is to be mined for asbestos or gold or silver (price by O. C. of 7th Oct., 1881) or for inferior metals or other minerals or deposits of any substance of appreciable value.

2. A specimen of the mineral which the land is to be worked with an affidavit identifying it, having been taken from the land applied for.

Mines of gold or silver on public or private lands may be worked by parties taking out licenses for themselves and employees, costing ten dollars for each person for three months, if the mining is to be done on private lands, and four dollars on public lands.

The size and position of claims on public lands worked under such licenses are regulated by the Act, determined by the Mining Inspector according to circumstances.

The localities in the Province of Quebec in which minerals are chiefly found are as follows:—

GOLD.—Eastern Townships, especially the Counties of Beauce and Compton.

PHOSPHATE OF LIME.—County of Ottawa and Argenteuil.

ASBESTOS.—Counties of Megantic and Wolfe.

IRON.—Counties of Ottawa, Montcalm, St. Maurice, Charlevoix and Saguenay.

COPPER.—Counties of Beauce, Megantic and Sherbrooke.

GALENA.—Counties of Ottawa (Lake Temiscamingue), Gaspé and Rimouski.

PLAUMBAGO.—County of Ottawa.

MICA.—Counties of Berthier, Ottawa and Megantic.

During the past quarter of the century British Columbia has no insignificant contributor to the gold market of the world. Since 1858 up to the present time has produced no less than \$40,000,000 worth of the precious metal. Besides this our Western Province on the Pacific Coast is conspicuous for her known natural wealth in anthracite and bituminous coal and iron and copper mines.

... to fine arts.—
... stones, agates, jaspers, amethysts.
... miscellaneous minerals.—Coal, lignite, rock-salt, petroleum or rock-oil, feldspar, bituminous shale.

GENERAL INFORMATION RESPECTING THE MINES & MINING LAWS OF THE PROVINCE OF QUEBEC.

The chief provisions of the Quebec General Mining Act of 1880 are:

1. The declaration of ownership by the Crown and reserve of all mines not especially granted. Sec. 3.
2. For the sale of mining rights on unpatented lands acquired for agricultural purposes. Secs. 4 to 12.
3. For imposition of royalty under Order in Council, if deemed advisable. Secs. 13 and 52.
4. For granting licenses to mine for gold or silver on public lands, and on conceded portions of Seigniorie Rigaud, Vaudreuil and other private lands. Secs. 14, 50, et seq.
5. For the sale of lands as mining locations. Sec. 23, et seq.
6. For imposition of penalties for contravention of Act. Sec. 101, et seq.

Under this Act, parties holding letters patent for lands granted for agricultural purposes may acquire the right to work any mines of gold or silver thereon, without license, by paying the Commissioner of Crown Lands a sufficient sum to make up, with the amount paid before the issue of patent, the price of two dollars per acre. In the case of "free grants" the whole price of two dollars per acre must be paid. *Constitutes* in the seigniories in which the Crown holds mining rights may acquire these rights by paying one dollar and a half per acre for the whole of their land, or at least one hundred acres; and the seignior or proprietor of the unconceded portion of a seigniorie may do the same on paying two dollars per acre; the extent over which such rights can be acquired being, however, limited to four hundred acres, or in special cases, eight hundred acres.

If a mine of any kind be discovered on a worked land sold for

... foreign... brought in, and... androus change.
... mineral resources of this... become developed, its agricultural capabilities will be fully brought out, manufactures and commerce will increase, and a numerous and thriving population will find ready employment in the various branches of trade.

The chief minerals of economic importance enumerated in the Geological Survey Reports, as existing in Canada, may be thus classed:—

1. Metals and their ores.
2. Minerals applicable to chemical manufactures.
3. Minerals applicable to construction.
4. Minerals for grinding and polishing.
5. Minerals applicable to refraction.
6. Minerals applicable to the fine arts.
7. Minerals applicable to miscellaneous uses.

Metals and their ores.—Under this head are the following: Iron, which exists as bog ore, hematite, magnetic and specular ore, and magnetic iron sand; lead; copper, sulphurets and native; nickel and cobalt, zinc, silver, gold, platinum.

Minerals applicable to chemical manufactures.—Iron ores and chromic iron, sulphate of barytes, molybdenite, cobaltiferous and arsenical pyrites, bismuth, antimony, manganese dolomite, magnesite, phosphate of lime and calcareous tufa. Of the above, iron ores and sulphates of barytes, chromic iron, bismuth and others are used as pigments and in the manufacture of paints; molybdenite and manganese, for blacking and decolorizing; pyrites, for the manufacture of copperas, sulphur and sulphuric acid; dolomite and magnesite, for medicinal purposes; phosphate of lime and calcareous tufa, for artificial manures.

Minerals applicable to construction.—Under this head are limestones and sandstones, for building purposes, the former is also used to prepare lime and hydraulic cement; gneiss syenite and granite, for paving purposes; marbles, found in great variety, white, black, red, veined, dark and light green, brown, grey, mottled, etc., for pavements, mantelpieces, and decorative purposes; and sculptures; slates, for

MINERALOGICAL NOTES.

The following is an extract from Mr. Small's pamphlet on the mineral resources of the Dominion of Canada:—

"The possession of metals is of vital importance to every country, and nature has been extremely prolific in giving Canada, in its varied geological functions, many of the ordinary metals and ores."

The attention of capitalists, both native and foreign, which has within the past few years been attracted thither, has had the effect of eliciting facts which prove, beyond a doubt, that Canada is destined, eventually, to rank among the finest mining districts in the world.

The impetus lately given to prospecting, by enquiries constantly being made, has caused the discovery of important deposits of economic minerals of vast extent, and of so varied and useful a character as to give evidence of which, in Canada, was previously unknown, or, at least, hardly known to the geologist and mineralogist. These discoveries, in many cases, lead to

... May, 1883, no less than 10,000 have been registered in the visitors' book, and those may be seen the signatures of scientists, of men identified with mining pursuits, and of merchants and manufacturers from all parts of the globe. The average number of visitors is now about 50 daily, and during the past year there have been as many as 100, 150, and, on some special occasions, 300 names entered in the book in one day. It has been noticeable to those employed in the building, that a very large proportion of the people visiting the Museum manifest a marked preference to inspect the mineralogical collection, and to this much importance is attached, as it goes far to prove that the mineral wealth of Canada is becoming known the world over.

MINING REGULATIONS.

DEPARTMENT OF THE INTERIOR,
DOMINION LANDS,

OTTAWA, 19TH APRIL, 1893.

REGULATIONS TO GOVERN THE DISPOSAL OF MINERAL
LANDS OTHER THAN COAL LANDS.

These regulations shall be applicable to all Dominion Lands containing mines of gold, silver, bar, lead, tin, copper, iron, or mineral deposit of economic value, with the exception of coal.

Any person may explore Dominion Lands not appropriated or reserved by Government for other purposes, and search thereon, either by surface or sub-surface prospecting, for mineral deposits, with a view to obtaining under these regulations a mining location for the same.

A location for mining, except iron, shall not exceed twenty acres in area.

Surface boundaries shall be marked by lines not more than four inches wide. Its length shall not be less than three times its breadth.

Sub-surface boundaries beneath the surface shall be the vertical planes in which its surface boundaries lie.

Any person having discovered a mineral deposit, and desiring to locate in his claim to acquire a mining location, under these regulations, in order that he may work thereon, shall, to entitle him to protection, proceed as follows: He shall mark the location on the ground by placing at its four corners wooden posts, not less than six inches square, driven not less than eighteen inches into the ground, and showing that length above it. If the ground be too hard to admit of so driving the posts into it, he shall build about each of them to support it and keep in place, a cairn or mound of stones, at least three feet in diameter at the base, and eighteen inches high. On the most north-easterly corner he must mark with a cutting of wood, or with red chalk, his name in full, the date of such marking, and the letters M.L. 1., to indicate that the post is a Mining Location, post No. 1. Proceeding from the most south-easterly post all the other posts shall be marked M.L. 2, and with his initials. Next, the most north-westerly post shall be marked M.L. 3, and with his initials; and the most north-westerly post shall be marked M.L. 4, and with his initials and the letters M.L. 4. Furthermore, on one of the corners of each post, which face toward the post which next follows in the order in which they are here named and numbered, there shall be marked in figures the number of yards distance to such following post. If means of measurement are not available, the distances to be so marked on

each of the posts may be those estimated.

(In this manner any subsequent prospector, informed of these regulations, will, on meeting any one of the posts, be enabled to follow them all round, from one to another, and avoid encroachment either in search or in marking out another location in the vicinity for himself.)

5. Having so marked out on the ground the location he desires, the claimant shall next, within sixty days thereafter, file with the local agent in the Dominion Land Office for the district in which the location is situate, a declaration on oath according to form A in the schedule to these Regulations (which may be sworn to before the said agent, or may have been previously sworn to before a Justice of the Peace or Commissioner) setting forth the circumstances of his discovery, and describing, as nearly as may be, the locality and dimensions of the claim marked out by him as aforesaid; and shall, along with such declaration, deposit with the agent the sum of fifty dollars to the end and for the purpose set forth in the second clause hereafter.

6. The Agent shall give him a receipt, according to form B in the schedule to these Regulations, for such deposit. This receipt shall authorize the applicant, his legal representatives or assigns, to enter into possession of the location applied for, and during the term of one year from its date and subject to the royalty prescribed in clause 19 of these Regulations, to take therefrom and dispose of any mineral deposit contained within its boundaries.

7. The deposit of fifty dollars shall be paid into the Receiver General by the Land Agent, along with and in like manner as other revenue from Dominion Lands in his district, and in the event of the mining applicant fulfilling all the conditions prescribed by these Regulations, the said deposit shall be deemed payment by him to the Government for the survey of his location.

8. At any time before the expiry of one year from the date of his making his application and deposit as aforesaid, it shall be open to the applicant to purchase the location on filing with the Local Agent proof that he has expended not less than five hundred dollars in bona fide mining operations on the same, such proof to consist of his own sworn statement setting forth in detail the nature of such operations and the amount expended, and to be accompanied and confirmed by the affidavits of two disinterested persons.

9. Should the applicant, or his legal representatives as aforesaid, fail to prove within one year, the expenditure prescribed, or having proved such expenditure, fail within that time to pay in full, and in cash, to the Local Agent, the price hereinafter fixed for such mining loca-

tion, then any right on the part of the applicant or of his legal representatives in the location, or claim on his or their part to acquire it, shall lapse; and the location shall thereupon revert to the Government and shall be held along with any immovable improvements thereon for disposal, under these Regulations, to any other person, or as the Minister of the Interior may direct, and the deposit paid by the applicant shall be forfeited to the Crown.

10. The price to be paid for a mining location shall be at the rate of twenty-five dollars per acre.

11. If, on account of its remoteness or other cause, a mining location cannot, at the time of the payment of the deposit of fifty dollars by the applicant for the purpose, be surveyed by the Government for that sum, he shall be subject to the alternative of waiting until the employment of a surveyor by the Government on other work in the vicinity of the claim renders it possible to have the survey made at a cost not exceeding fifty dollars, or of sooner procuring at his own cost its survey by a duly commissioned surveyor of Dominion Lands, under instructions from the Surveyor General; in the latter case, on receipt of the plans and field notes of the survey, and approval thereof by the Surveyor General, the claimant shall be credited on account of royalty due, or to become due, with the fifty dollars deposited by him to defray cost of survey.

12. Where two or more persons lay claim to the same mining location, the right to acquire it shall be in him who can prove he was the first to discover the mineral deposits involved, and to take possession by demarcation, in the manner prescribed in these regulations, of the location covering it.

13. Priority of discovery alone shall not give the right to acquire; but a person subsequently and independently discovering, who has complied with the other conditions prescribed in these regulations, shall take precedence of the first discoverer if the latter has failed to comply with the said other conditions. Provided, however, that in any case where it is proved that a claimant has in bad faith used the prior discovery of another and fraudulently affirms that he made independent discovery and demarcation, he shall, apart from any other legal consequences, have no claim, and shall forfeit the deposit made with his application.

14. Not more than one mining location shall be granted to any individual applicant.

15. The Minister of the Interior may grant a location for the mining of iron not exceeding 160 acres in area. Provided that, should any person making an application purporting to be for the purpose of mining iron, and thus obtain, whether in good faith or fraudulently, possession of a valuable

mineral deposit other than iron, his right in such deposit shall be restricted to the area hereinbefore prescribed for other minerals, and the rest of the location shall thereupon revert to the Government for such disposition as the Minister of the Interior may direct.

16. When there are two or more applicants for any mining location, no one of whom is the original discoverer, nor his assignee, the Minister of the Interior, if he sees fit to dispose of the location, shall invite their competitive tender, or shall put it up to public tender or auction, as he may deem expedient.

17. An assignment of the right of an original discoverer to purchase a mining location shall be endorsed on the back of the receipt or certificate of assignment (Forms B and C in the schedule hereto), and the execution thereof shall be attested by two disinterested witnesses, upon the deposit of the receipt or certificate with such assignment executed and attested as herein provided, in the office of the Local Agent, accompanied by a registration fee of two dollars, the Local Agent shall give to the assignee a receipt in the form C in the schedule hereto, which certificate shall entitle the assignee to all the rights and privileges of the original discoverer in respect of the claim assigned; and the said assignment, with the registration fee of two dollars, shall be forwarded to the Minister of the Interior by the Local Agent, at the same time and in like manner as his other returns respecting Dominion Lands, and shall be registered in the Department of the Interior; and no assignment of the right of an original discoverer to purchase a mining location which is not unconditional and in all respects in accordance with the provisions of this clause, and accompanied by the registration fee herein provided for, shall be recognized by the Local Agent or registered in the Department of the Interior.

18. If application be made under the next preceding clause, by the assignee of an original discoverer, to purchase a mining location, and such claim is duly recognized and registered, as hereinbefore provided, such assignee shall, by complying with all the provisions of clause 8, become entitled to purchase the location for the price and on the terms prescribed in these regulations, whether or not his assignor may have previously acquired a mining location under them.

19. The patent for a mining location shall reserve to the Crown, for ever, a royalty of five per cent. on the sales of the products of all mines therein; and also on the sales of any timber or wood that may be on the location.

20. Returns shall be made by the grantee sworn to by him, or by his agent or other employee in charge of the mine, at monthly or such other intervals as may be required. (Continued on the next page.)

MINERALS IN CANADA.

An article has appeared in the *Liverpool Journal of Commerce* commencing on the mineral wealth of Canada as follows:—"Much interest has of late been created amongst capitalists in consequence of the extraordinary development of mining in Canada; and, in connection therewith, it may be well to observe that in the neighbourhood of Ottawa, the Capital of the Dominion, the amount of enterprise displayed, especially in the Laurentian range of mountains, is something enormous. For the past two or three years parties of workmen have been engaged in removing phosphates from what are known as "surface pockets," the prevailing opinion amongst geologists having been that this valuable mineral was only to be found under certain conditions. The experience of those engaged in the operations referred to throws fresh light on the entire subject, and, in contra-distinction to the learned *dicta* of men of science, it is found that the mineral is obtainable under conditions which present no appearance whatever of animal organization. Further, it is obtainable in such quantities, and of so high a quality—the latter giving \$5 per cent. of phosphate of lime—as to yield a large revenue. It has been ascertained, likewise, that these "pockets," when blasted, expose extensive and unexpected deposits of phosphate beneath. The consequence of these disclosures has been much excitement, not only in Ottawa, but throughout the Dominion, and phosphate lands have experienced a rise in value. It is noteworthy, too, that not only American, but English, French and Belgian capitalists are investing largely in these lands, a strong testimony to the value in which they are held beyond Canada itself.

In further illustration of the mineral wealth of the country, we may mention that on the Island of Michipacotin there has been disclosed an enormous deposit of copper, which far exceeds the deposits of the Calumet and Acla Mining Company, so well known in the United States. Specimens of the newly-discovered ore have been forwarded to the laboratory of the School of Mines in London, and the analysis has proved, in connection with the known extent of the deposit, that a valuable industry of unheard of dimensions is about to be opened up. A large capitalist from London has sailed in one of the Allan steamships, with a view of testing the accuracy of the reports that have reached this country as to mining development in Canada—a practical method of going to work, which should tend to foster legitimate trade and nip any bogus experiments in the bud. Assuming these reports to be, in the main, true, Canada is certain, as regards the mining industry, to have a bright future; and, with the in-

terest manifested in all Canadian matters by the Marquis of Lorne, should have the effect of promoting still further commercial intercourse between it and the Mother Country."

It cannot fail to please the people of Canada, more particularly those interested in mining enterprises, to read such flattering articles in the foreign press on the vast natural wealth this country possesses.

Manitoba Mines.

It must be encouraging to those directly interested in the welfare of Manitoba to notice how rapidly the mineral wealth of that province is being developed. Not a day passes that we do not see leading articles in the Canadian and American press commenting on the gold mines of Manitoba, and all testifying in unqualified terms to the richness of the mines at present in operation. Prominently among these is the well-known Keewatin Mine, situated near the Lake of the Woods, about 500 feet from its shore. The shaft has been opened on the crest of a ridge, about 80 feet above the lake level, and is being sunk in a true fissure vein, with most encouraging results, the quartz increasing in richness as mining progresses, until the company has now the satisfaction of claiming, and justly so, that the ore taken from its mine gives a larger percentage of the precious metal than any other yet discovered in the district; and, compared with the principal gold mines of the United States, its yield is far in excess, as the following figures will show:—

Manitoba Mine..	
Keewatin Mine, per ton of 2,000 lbs.	\$171 50
Lake Winnipeg	124 00
Hay Island "	151 00
North American "	81 25

United States Mines.

Mine	State	Per ton
Bodie Consolidated Mine	California	\$74 78
Keystone Mine	Georgia	28 00
Moneton	Montana	40 00
Penobscot	Dakota	5 to 6
Robinson	Colorado	50 00
Silver Bond	Montana	40 00
Tecumseh	Utah	30 00
The West	S. Carolina	10 00

From this it will be seen that the flattering reports published regarding the value of the "Keewatin," have not been without substantial foundation, and taking into account the many important advantages this mine possesses, such as being easy of access, the cheapness of fuel and the richness of its ore, it may safely be predicted that the company has in store a brilliant and a prosperous future.

Some gentlemen from the United States who have a large amount of capital invested in mines in New Mexico and Nevada, accompanied by mining experts from New York, recently visited the property of the Keewatin Mining Company, and were unanimous in the opinion that the lode was much richer and promised a larger yield than anything they had seen in Colorado or Nevada. To the opinions of these practical and, in such matters, well-informed men, should be attached much importance, time, however,

will prove the correctness or incorrectness of their reports. If mining operations are prosecuted with the same energy in the future, and with the same encouraging results as have been shown in the past, this company will realize such prosperity as will exceed the most sanguine anticipations of those who are interested in its welfare. If, when the output of ore has been crushed, the result bears out the tests already made on a small scale, and there is little doubt but it will, then, it is safe to say, success will have been assured for the Keewatin Mining Company and a lively "boom" will thus be created in Manitoba mining stocks. There will be no further necessity for applying to men of capital for assistance—on the contrary, capitalists will anxiously seek investment for their money in what promises to return such handsome profits.

A Gold Brick.

A despatch recently received from Winnipeg announces the arrival in that city of a gold brick weighing 3 lbs. It was brought from the Winnipeg Consolidated Mine, and has created intense excitement among those interested in Manitoba gold mines. Another brick is looked for, and should have reached Winnipeg ere this, from the Argyle Mine. The mills at both these mines are said to be doing excellent work, and the value of the properties is established beyond a peradventure.

Keewatin Mine.

A telegram was received from New York a short time since by a gentleman in Winnipeg, asking him if the Keewatin Mining Company would be disposed to sell 5,000 shares of its stock at \$8 per share. If this offer be accepted, it will be the largest sale of Keewatin stock yet effected; its par value is \$10 per share.

Incorporated Mining Companies in Manitoba.

The following is a list of the Gold Mining Companies owning properties on the Lake of the Woods, the capital stock of each, and the par value of their shares:

Company	Capital Stock	Shares par value
Argyle Mining Co., limited.	\$1,000,000	\$100
Winnipeg Consolidated Gold Mining Co., limited.	1,020,000	50
Keewatin Mining Co., limited.	1,000,000	10
Lake of the Woods Gold Mining Co.	2,000,000	10
George Heenan Mining Co.	500,000	2
Lake Winnipeg Mining Co.	2,000,000	10
Mining Investment Co.	300,000	
Canada Gold Mining Co., limited.	1,000,000	20
British American Gold Mining Co.	500,000	10

The greater number of the above named companies are already engaged in active operations, and mining is being vigorously pushed ahead.

A careful estimate, by States, of the silver product of Mexico, shows an annual yield of \$22,000,000.

Manitoba Lands.

We beg to direct the attention of our readers to the list of Birtle Lands in Manitoba, published in another column for the purpose of the selection of these lands made by an old resident of the country, who reports rich bluffs with gravel sub-soil, and plenty of water. The Portage and Couronne Railway—now in construction—will run through the heart of the Birtle district, and more beautiful country exists in British possessions than the and Bird Tail Section of Manitoba, and we venture to say that, in the next five years, lands of those offered for sale will be obtained at \$50 to \$100 per acre.

ASBESTOS.

This valuable mineral is found more or less in various parts of Canada. It occurs in the township north of Kingston in many sections adjacent to the tawa Valley, but the deposits covered in these localities have yet been worked, and this is due to the want, on the part of the owners, of the necessary machinery to carry on mining operations, as to the fact that the existence of the mineral in this section of the province is comparatively unknown to the lists. Yet the opinion amongst geologists that the presence of asbestos in the Ottawa Valley is destined to become an industry of great importance. In the Township of Shefford, mining has already become the most important industry, a large quantity of mineral shipped to the mines in the County of Montserrat has been annually increasing, and it is rapidly becoming one of the most extensive asbestos productions of North America. The Township of Shefford, mining operations are being actively carried on by the Boston Asbestos Company, by Messrs. King and by Messrs. Johnston and Four distinct properties are worked by these gentlemen, and employ in all 160 men, and the daily output is estimated at 100 tons. Mr. Jeffery has for some years been engaged in mining in the Township of Danville, and has succeeded in raising a large amount of mineral all of which has been shipped to the United States. Mr. W. H. Johns, of New York, one of the largest Fire-proof Paint and Packing Manufacturers in the United States. Mr. W. H. Johns, in Wolfston, is said to produce 100 tons daily, and by the employment of additional force the output may be considerably increased. This has, however, been but recently opened and it is only reasonable to suppose that it will become as productive as developments progress. In the Township of Broughton, Dr. J. Reed is giving some attention to mining, and a mine now operated by him is to develop into a very valuable

property. The asbestos produced from these mines in the County of Megantic, is similar to that found in the Ottawa Valley, and is pronounced by European manufacturers the finest and strongest fibre of the kind known. On Lot No. 11, in the 8th Range of the Township of Templeton, in the County of Ottawa, a valuable asbestos mine has been opened and a quantity of mineral shipped, but, owing to the owner's inability to continue mining operations, the property is offered for sale, as will be seen by an advertisement in another column. Most favourable reports have been received of this property, and there exists little doubt that it will develop into one of great value.

PERSONAL.

Mr. J. G. Miller, who has for many years been identified with phosphate mining in Canada, was in Ottawa recently. Mr. Miller has devoted a great deal of time and study to this industry, and was instrumental in attracting the attention of the outside world to the value of our Canadian apatite deposits. For the past two years he has been actively engaged in guano mining on an island near Porto Rico, and was in Ottawa *en route* to Liverpool, where he hoped to procure direct tonnage from the island for his output by effecting such arrangements with ship-owners as would allow vessels carrying cargo to American ports to return laden with guano for the English market. As the uncertainty of transportation has thus far retarded his operations, and has been a serious drawback, it is to be hoped he may accomplish the object of his mission.

Mr. W. McIntosh, Manager of the High Rock Phosphate Mine, was in the city within the past few days, and expressed himself more than satisfied with the way in which the work under his supervision is progressing. Mr. McIntosh has been engaged for some years in this business, and has forwarded many thousand tons of mineral across the Atlantic; this season he will ship more than in any previous year, and yet he speaks of phosphate mining in Canada as being in its infancy.

Captain J. E. Smith, of the "Union Phosphate Land and Mining Co.," reports that work is progressing most favourably at the mine. The property owned by this company adjoins the "High Rock Mine," in the Township of Portland, West, and is said to be very rich in mineral. The company, composed of capitalists in New York, Philadelphia, Detroit, Chicago, Cincinnati, and Kansas City, has a capital stock of \$1,000,000, divided into 10,000 shares, fully paid up and marketable. A large force of men are employed at the mine, and the most

modern machinery has been erected to facilitate the rapid prosecution of work. Captain Smith, the company's superintendent, when last in Ottawa, is reported to have said that, since the company began operations, the immediate vicinity of the mine has undergone a great change. What was but a few months ago a wilderness, is now the scene of life and activity; and, where no habitation was visible, a village of no mean proportions has suddenly appeared. The superintendent will no doubt ship a large quantity of high-grade phosphate from the mine this year.

Mr. Weston, of the firm of Van Rensselaer, Falding & Co., of New York, was in Ottawa a few days ago. The firm has entered into contract with the Dominion Phosphate Company to raise a large amount of first quality phosphate from a property purchased last year by the said company from Mr. W. A. Allan, of this city. The mine is one of great value, and the mineral already mined has proved to be of the richest grade. Mr. Weston speaks very highly of the property, and is more than sanguine that the output for the year will be in excess of the quantity contracted for by his firm. Steam drills and derricks are kept busy penetrating into the bowels of the mountain towards the main body of ore. A cut is being made across the hill, 40 feet deep by 10 feet in width, so as to facilitate the working of a large force, and, in making this opening, many fine veins, leading to the main deposit, have been crossed, and a large amount taken therefrom. Mr. Weston reports a great quantity of phosphate in sight, and says that the company contemplates constructing a tramway from the mine to the Rivière du Lièvre to render practicable the shipping of the output during the summer season. Phosphate mining in the County of Ottawa is certainly making rapid strides.

MICA.

In Canada, up to the present time, little or no attention has been directed to this useful and valuable article of commerce. Throughout the Laurentian range large quantities of mica are to be seen on the surface of the rocks, and, wherever mining or quarrying has been carried on, abundance of it is to be met with, but in most instances it is unmarketable. In the majority of cases it is associated with a limestone formation, and this is pronounced to be of no commercial value. In some localities, however, in the Ottawa Valley, it occurs in regular veins, lying between well defined walls of feldspar and quartz, and in others the veins are hemmed in by granite. The mica found in these formations is of a very superior quality, and, in cleanness and size of the sheets, it is equal to that imported from North Carolina and

New Hampshire. From some such veins, not far distant from the City of Ottawa, a quantity has been extracted and forwarded to different firms in the United States, who have attested to its value and pronounced it equally clear and perfect as any they had before used. It is to be hoped that, at an early day, Canadian mica will be sought after by stove manufacturers and others, and that the same activity will be shown in the mining of this mineral as is evinced by those engaged in working the phosphate and other deposits.

IRON.

There is no metal of so much importance in the material progress and prosperity of any country as iron, and it is to be found in great abundance and variety in all the provinces of the Dominion of Canada. The iron deposits of Eastern Ontario and the western portion of the Province of Quebec are especially noteworthy, as they are destined, at no distant day, to attract the attention of capitalists from all parts of the world. There are to be found, in every direction throughout this part of Canada, strong indications of the presence of the metal, and many veins of magnetic and hematite ore have been opened to a small extent by prospectors and owners of properties for the purpose, merely, of establishing the fact of its existence in paying quantities, and of procuring specimens for analysis. In nearly all cases the result of assays has proved the ore to be of unquestionable richness, without deleterious properties common to that in many other localities; to be comparatively free from impurities, and the presence of titanium is almost imperceptible. In the Township of Hull, in the County of Ottawa, extensive deposits of hematite ore have been exposed; and one mine of magnetic ore, yielding as high as 66 per cent. of metallic iron, has been actively worked for some years, and the ore shipped at small cost to Cleveland, Ohio. In that section of Eastern Ontario lying north of Kingston and Belleville, between Lake Ontario and the waters of the Upper Ottawa, an abundance of iron ore is to be found, occurring chiefly in the Townships of Marmora, Hastings, Tudor, Madoc, Bedford and Bagot; in the last named township the ore is said to yield a high percentage of metal, and to be of marked purity. In some of the other townships the mines have been more or less operated, and the output shipped to the United States to be smelted. In Bagot, however, the deposits have not yet been worked for shipping, owing to their having been isolated from railway and water communication, and to the difficulty of access thereto. Heretofore encountered; this drawback has, however, been removed by the construction

Pembroke Railway, which now traverses that section of the country, affording easy access to the mines, and means of transporting the ore—that is to say, if property owners continue to ship the output in its raw state to American smelting works; but the Canadian Government is alive to the importance of encouraging home manufacture of iron, and, as an inducement to miners in the country to do so, Sir Leonard Tilley, in his Budget speech, delivered in the House of Commons on the 30th of March, said: "the Government will submit a resolution to the Committee, that on and after the 1st July next, and for 3 years, \$1.50 per ton will be paid on all pig-iron produced in Canada during those 3 years, and \$1.00 per ton during the next 3 years, as a bounty for the encouragement and development of this industry."

The bounty mentioned for the 3 years from the 1st July (\$1.50 per ton) should be ample to defray the cost of mining, and to go towards paying for fuel as well. This should be sufficient to induce capitalists in the Dominion to inaugurate this new enterprise, and, if due advantage be taken of the Government's liberal offer, it will have the effect of bringing Canada prominently among the extensive iron-producing countries of the world.

PROJECTED RAILWAYS.

The inhabitants of those sections of the Province of Quebec adjacent to the Rivers Gatineau and Du Lièvre are much exercised at the prospect of having, within a short time, railway communication from the interior to the line of the Canadian Pacific and the Ottawa River. The surveys have already been made for the Ottawa and Gatineau Valley Railway, and for the Ottawa Colonization Railway, and it is expected that the work of construction on both roads will be begun in the near future and strenuously pushed to completion. The line of the first mentioned road has been located from Hull to a point 80 miles north, and throughout the entire distance no serious engineering difficulties have been encountered; for many miles it traverses a cleared and well cultivated country, and then enters the timber and mineral district of the Gatineau Valley. The Ottawa Colonization Railway, starting from Buckingham, will pass through open country for some distance, and, running west, will penetrate into the very heart of the phosphate region, thus affording rapid means for shipping ore at all seasons of the year. A very fair location for this line has been adopted, and the breaking of ground is looked for with no little interest by those engaged in lumbering and the townships concerned. The proposed route is

quired by the Minister of the Interior, of all products of his mining location, and of the price or amount he received for the same.

21. The Minister of the Interior may direct mining locations to be laid out wherever, from report of the Director of the Geological Survey or from other information, he has reason to believe there are mineral deposits of economic value, and may sell the same to applicants therefor, who, in his opinion, are able and intend in good faith to work the same; or he may, from time to time, cause the said locations to be sold by public auction or tender. Such sales shall be for cash, and at prices in no case lower than those prescribed for locations sold to original discoverers, and shall otherwise be subject to all the provisions of these regulations.

LINDSAY RUSSELL,

Deputy of the Minister of the Interior.

SCHEDULE TO MINING REGULATIONS.

FORM A.—DISCOVERER'S APPLICATION AND AFFIDAVIT.

I, (A.B.) of hereby apply, under the Dominion Lands Regulations, for a Mining Location in (here give general description of locality)

for the purpose of mining for (here name the metal or mineral) and I hereby solemnly swear:—

1. That I have discovered therein a deposit of (here name the metal or mineral)

2. That I am to the best of my knowledge and belief the first discoverer of the said deposit.

3. That I am unaware that the land is other than vacant Dominion Lands.

4. That I did, on the day of mark out on the ground, in accordance in every particular with the provisions of clause four of said Mining Regulations, the location for which I make this application; and that in so doing I did not encroach on any mining location previously laid out by any other person.

5. That the said mining location contains, as nearly as I could measure or estimate, an area of acres, and that the description (and sketch, if any,) of this date hereto attached, signed by me, set forth in detail to the best of my knowledge and ability its position, form and dimensions.

6. That I make this application in good faith to acquire the land for the sole purpose of mining to be prosecuted by myself, or by myself and associates, or by my assigns.

Signed before me (Signature)

FORM B.—RECEIPT FOR DEPOSIT BY APPLICANT FOR MINING LOCATION.

No.

Department of the Interior,
Dominion Lands Office,
Agency 18

Received from (A.B.) of Fifty Dollars, being payment by him of the deposit required by Clause five of the Dominion Lands Mining Regulations accompanying his application No. , dated 18 for a Mining Location in (insert general description of locality).

This receipt authorizes the said (A.B.) his legal representatives or assigns, to enter into possession of the said Mining Location, and during the term of one year from the date of this receipt, and subject to the royalty prescribed in Clause nineteen of Mining Regulations, to take therefrom and dispose of any mineral deposit contained within its boundaries, and on due compliance at any time within that period with the several requirements in that behalf of the said Mining Regulations, entitles him or them to purchase the said location which, provisionally, and until survey thereof, may be known and described as follows: (Insert description in detail).

If the said A.B., or his legal representatives or assigns, fail to comply, as aforesaid, with the conditions that would entitle them to purchase within one year from this date, or, having so complied, do not within that time make payment in full for the land, then the right to purchase shall lapse, and the Mining Location shall revert to the Government, to be otherwise disposed of as may be directed by the Minister of the Interior.

Agent of Dominion Lands.

FORM C.—CERTIFICATE OF THE ASSIGNMENT OF A MINING LOCATION.

No.

Department of the Interior,
Dominion Lands Office,
Agency 18

This is to certify that (B. C.) of has filed an assignment in due form, dated 18, and accompanied by a registration fee of two dollars, of the right of (A. B.) of to purchase the mining location in

(here insert general description of locality) applied for by the said A. B. on the 18

This certificate entitles the said B.C., or his legal representatives or assigns, to all the rights and privileges of the original discoverer, A.B., in respect of the claim assigned and hereinafter described; that is to say, to enter into possession of the said mining location, and during the term of one year from the date of the receipt No., granted to the said A.B., and subject to the

royalty prescribed in Clause nineteen of the Mining Regulations, to take therefrom and dispose of any mineral deposit contained within its boundaries, and on due compliance at any time within that period with the several requirements in that behalf of the said Mining Regulations, entitles him or them to purchase the said Location, which provisionally, and until survey thereof, may be known and described as follows:— (Insert description in detail).

If the said B.C., or his legal representatives or assigns, fail to comply as aforesaid with the conditions that would entitle them to purchase within one year of the date of the receipt granted to A.B., and now deposited with me, or, having so complied, do not within that time make payment in full for the land, then the right to purchase shall lapse, and the Mining Location shall revert to the Government to be otherwise disposed of as may be directed by the Minister of the Interior.

Agent of Dominion Lands.

COAL.

That coal does not exist in Ontario or Quebec, owing to the geological formation of these Provinces, is an established fact; but being favourably situated in there proximity at all points to other carboniferous regions, and the facility of conveyance afforded by the vast lakes, rivers, canals and railways of the respective provinces, it is easily procurable, and the deficiency is well made up by the vast areas of coal district in the Maritime Provinces and on the Pacific Coast. It is a most important matter for Great Britain to hold on either side of her possessions in this continent, countries possessing this valuable mineral on the coast, the eastern and western portals of the Dominion.

NOVA SCOTIA.—It is probable that Nova Scotia, in proportion to its extent, stands unrivalled in the productive capabilities of its coal fields, whilst nature has afforded every facility for working them to advantage. The coal belongs entirely to the bituminous division, no anthracite having been met with as yet, although there are numerous tracts of carboniferous formation in various parts of the Province; the largest and most valuable are situated near and along its northern shores, and over a considerable portion of the northern and eastern shores of Cape Breton. The chief coal producing sections of the Province are known as *The Sydney*, *The Inverness*, *The Richmond*, *The Antigonish*, *The Pictou*, and *The Cumberland Coal Fields*. The most productive of these is the Sydney Coal Field which furnishes coal particularly suited for gas making, and certificates from the English metallurgists have proved it almost

equal to Welsh Steam Coal. The enormous amount of available coal it contains is stated in the Geological Survey Reports to be over 212,000,000 tons. The cost of the coal mined and put on board the cars varies at the different collieries from 60 cents to \$1.25 per ton.

NEW BRUNSWICK.—The only locality in this Province where coal mining operations are at present conducted is in and about the Newcastle River and the shores of the Grand Lake, in Queen's County. The area and thickness of the beds indicate a total productive capacity of 155,000,000 tons, and it may fairly be presumed that with economical management, and a proper system of working, a large portion of this enormous quantity might be profitably extracted. The coal is a true bituminous, is employed both for household and blacksmiths' use, and is said to be of good quality. In Albert County a remarkable mineral known as Albertite was discovered about the year 1850, and since then nearly 200,000 tons of this mineral has been removed and exported to the United States for the manufacture of oil and for the admixture with other coals in the preparation of illuminating gas, for either of which purposes it is admirably adapted, being capable of yielding 100 gallons of crude oil, or 14,500 cubic feet of gas, of superior illuminating power, per ton.

BRITISH COLUMBIA.—The presence of good coal in Vancouver Island and the absence of it in other portions of the Pacific Coast, are greatly in favour of this Province. The coal bearing localities of British Columbia are *Queen Charlotte Island*, *Vancouver Island*, and the *Mainland*. The production is increasing with the demand, and, in view of a growing market, works are being freely extended. The output sells at the mines for \$5 to \$6, and in San Francisco for \$10 per ton. The existence of a fine quality of coal on the seaboard cannot fail to be of the very greatest importance when the Canadian Pacific Railway converts British Columbia into one of the world's highways. By that time all the trans-continental railways will connect on the Pacific Coast with lines of coasting and ocean steamers, which will get steam coal from the only North Pacific district that can supply it, namely, Vancouver Island. Dr. Brown, of Edinburgh, who visited the province some years ago, says, "that in her coal fields, British Columbia has within herself the elements of lasting prosperity," and this cannot be denied.

NORTH-WEST TERRITORY.—it is now an established fact that coal exists in various districts of this vast territory, and it has been discovered in large quantity in the following localities, namely, on the east coast of Hudson Bay and some miles inland from Little Whale

er. on Abitibi and Missinaibi
 rs; on the west bank of Coal
 k, and at the mouth of Poplar
 r; at and near Rocky Moun-
 House, and between that site
 Edmonton; in the region west
 Edmonton lying between the
 abasca and Red Deer Rivers,
 in the Souris district. The
 al scarcity and low quality of
 timber over hundreds of miles
 ntry bordering the two Sas-
 wan Rivers render it a
 er of the very greatest impor-
 in connection with the future
 ment of the North-West, and
 pening it up either by land or
 steam transport, to ascertain
 and at what depth coal can
 ocured available for domestic
 uses, railroads and steamboats.
 termine this, borings must be
 as surface examinations will
 ve the question.
 The recent discovery of coal in
 Souris district will prove of in-
 able value to Manitoba and
 ntry surrounding, and will
 e of the most valuable adjuncts
 e prosperity and progress of
 orth-West.

GRATUITOUS ADVICE.

antage might be taken by
 ans of the advice conveyed
 article which appeared not
 since in the Chicago Journal
 mmerce, addressed to grum-
 as follows:—
 s hardly understood why a few
 in this country have so suddenly
 rich. It is because the country
 ing in value every ten years, and
 en happen to be in possession of
 a arteries of trade and manufac-
 and so the land of every town
 a value, so does the railroad and
 h right of way double each ten
 and will continue to do so until
 ntry is fully occupied. Every foot
 in the North-West, every railroad
 go up and manufactory will be
 able in 1890 what it was in
 only get hold of as much as pos-
 sible material of this country and
 If the grumblers would do this
 of finding fault with owners of
 because their property doubles
 oubles again in value! Opening
 nd building railroads is not al-
 sure road to wealth, but the mines
 chance to be bonanzas and the
 h chance to be the great high-
 ill give their holders fortune.
 n't stop to grumble!"

TRUE COURAGE.

BY KATE WINDSOR.
 gh frame cabin on the bank of a
 emining regions. A dozen men
 d on the unplanned benches
 the interior, and two girls stand
 al attitude at the doorway. Out-
 banksmen are dexterously load-
 carriage with timber for use in
 e. Until they have completed
 eurs the operatives cannot go to
 pective stalls. All of them ex-
 e distinguishing marks of their
 and many of them bear on their
 the faint blue lines which tell
 ent story of perils in the mine.

The delay is tedious to men accus-
 tomed, as they are, to severe physical
 toil, and a veteran with grizzled locks
 and beard, who is evidently recognized
 by the others as a leader, suggests that
 one of the girls be sent for "drink."

The suggestion is approved by all
 with one exception, and this man, John
 Walters, remains silent.

The girl has not far to go, and she
 quickly returns with a can of the bever-
 age. Richard Wilson, one of those who
 had most heartily assented to the
 proposition, takes the can from the girl
 and proceeds to dispense the contents.
 He approaches Walters in turn and
 proffers the brimming glass, but the in-
 vitation is declined with thanks.

"So you won't drink, mate?"

"No, Dick; I can't do it."

"You are too partickler, mate; per-
 haps it's the company you objects to?"

"You know me better, Dick; don't
 press me."

"You had better drink, mate," says
 Dick, with an evil gleam in his eyes.

"I've already told you that I don't
 want it," is the steady answer.

"Well, take it that way,"—and the
 beer is violently dashed in Walters' face.

The man who is so grossly insulted
 turns a shade paler as he clenches his
 teeth hard to restrain the rising passion,
 but he says nothing, and a howl of
 derision is raised by his fellow workmen.

"Why, you cur," shouts one; "defend
 yourself; a worm will turn if trodden
 on."

"Jack Hardy," responds Walters;
 "you have worked in the next stall to
 me for over a year. We have seen some
 trouble in our heading—can you say
 that I have ever shown the white
 feather?"

"You're doing it now," is the quick
 and contemptuous retort.

"I object to fight on principle, and
 you know it," calmly replies Walters;
 and the appearance of the "boss" is
 the signal for closing the discussion.

The foreman reports the workings
 clear of gas; the lamps are locked, and
 the miners are quickly engaged in filling
 their tubs with the "black diamonds."

In the breast of John Walters various
 emotions are contending for the mas-
 tery. He is a sensitive man and the in-
 sult is keenly felt. The struggle is a
 sharp one, but the cloud lifting from his
 brow shows that he has conquered. He
 remembers the time when he drank
 harder, and for a longer period at a
 stretch, than any of his mates. He re-
 members the wretched torment, almost
 devoid of torture, which in those days
 he called his home; and he thinks of
 wife and children often hungry and
 always thinly clad.

All this is changed now. Not one of
 his fellows has a happier family or a bet-
 ter appointed home than himself, and all
 has been accomplished by total abstin-
 ence. By God's grace, he has told him-
 self, he would never fall again—and,
 although sorely tempted, he never has.

"Hark!"

It is one of the banksmen who is
 speaking to his companion. The sound
 which causes the exclamation is heard
 again, and both men throw themselves
 flat on the ground and endeavor to pen-
 etrate the inky blackness of the shaft.
 There is a strange and unaccountable
 stillness below, which is soon broken,
 however, by a dull rumbling sound re-
 echoing through the chambers and road-
 ways of the mine, and the men hold
 their breath in the intensity of their ex-
 citement. The carriage is at the top,
 and one of them arises and hastens to
 give the signal to "lower away."

Clang, clang, clang!

The massive hammer has fallen three
 times in succession.

"They want to come up, there is

trouble below," says the agent, who has
 just reached the bank from the office.

"And death!" answers the leading
 banksmen, solemnly.

The carriage is lowered with light-
 ning-like rapidity, is raised and its
 living freight discharged. Again and
 again the operation is repeated, and a
 crowd of women and children are by
 by this time congregated at the pit's
 mouth. They peer anxiously into the
 faces of those brought to the surface,
 hoping for the best but fearing the
 worst. Distigured features are seen in
 every load, and suffering is gauged by
 groans of anguish.

"How many were in the pit?" asked
 the agent in a voice which tells of
 strong emotion.

"One hundred and twenty," is the
 prompt answer.

"Then they are not all up?"

"No, sir; the men in No. 4 heading
 are still below."

"I fear they are doomed, but an effort
 must be made to save them—who goes
 with me?" and the agent jumps into the
 carriage with a nervous bound.

The example is quickly followed by
 several others, but there is no enthusiasm
 —only a grim determination to do their
 whole duty, though it takes them into
 the very jaws of death.

A narrow pathway winding down the
 mountain's side. The herbage is scanty,
 and yawning fissures and whitened
 stones bespeak the frequent torrent. A
 solitary goat browses on the slope, and
 naught beside, save the tall black der-
 rick which rears its head in the distance,
 tells of life. The silence is broken by
 the tolling of a bell in the tower of the
 village church, and soon the pathway is
 treaded by a procession of stalwart men
 and weeping women. On the shoulders
 of the men is borne all that is mortal of
 John Walters, the "cur," who has laid
 down his life on the altar of love.

The man who has treated him with
 insult and contumely was in imminent
 danger, for the explosion had come from
 his stall, and Walters resolved, if possi-
 ble, to save him. Half choked with the
 after-damp, he toiled onward through
 the subterranean passages until he came
 to Wilson's working place. Large por-
 tions of the roof had fallen, and it was
 necessary to proceed on his hands and
 knees. He did not hesitate, but, with a
 heart-prayer for success, he boldly en-
 tered.

Groping around with his hands out-
 spread, they presently came in contact
 with the apparent lifeless body, and in
 bended posture he retreated—slowly,
 laboriously, and painfully.

Once on the roadway, he sought for a
 sign of life and found it. The pulsation
 of Wilson's heart was perceptible, and it
 nerved the gallant fellow to increased
 effort.

But at last he sank to the ground, he
 could proceed no further; his brain was
 dizzy, his sufferings more acute; then all
 was lost in unconsciousness—the insen-
 sibility of death! The hero, for hero he
 was, had paid the last debt of nature,
 and had gone to his reward.

Later, when the exploring party en-
 tered the mine, the two were found, the
 head of the dead pillowed on the breast
 of the living—the man who had been
 saved at the eleventh hour.

Silently the procession moves on its
 way save when a halt is made for a
 change of bearers, or when the choir
 who lead raise their voices in the pathetic
 strain of a funeral dirge, until the grave
 is reached and the last sad rites com-
 pleted.

"He was a good man," says one.

"Brave as the bravest," is the hearty
 response, and the aged minister lays a
 kindly hand on the shoulder of Richard
 Wilson, and whispers gently: "Greater
 love hath no man than this, that a man
 lay down his life for his friend — *Winnipeg Times*.

A prominent mining report of
 Denver, Colorado, assayed an aver-
 age specimen of quartz, taken from
 one of the Manitoba mines, and
 found that it carried \$203.58 of
 gold to the ton. He speaks of the
 ore as being of astonishing richness.



IMPORTANT SALE

**Of choice and well situated Farm
 Lands in the Province of Mani-
 toba and North-West Terri-
 tories of Canada.**

At Winnipeg, commencing on Tues-
 day, the 15th May next, there will be
 offered at public auction, a portion of
 the even numbered sections lying along
 and adjoining the Canadian Pacific Rail-
 way in Manitoba and in the Territorial
 District of Assinboia, and of the even-
 numbered sections lying between the
 belt of the main line of the Canadian
 Pacific Railway and the International
 Boundary and between the Red River
 and the Coteau or Dirt Hills.

COAL LANDS.

Some of the Coal Lands on the Souris
 River will also be offered.

Further particulars of the lands, the
 upset prices, and the terms and condi-
 tions of sale may be learned at the Do-
 minion Lands Office, Winnipeg.

By order,

LINDSAY RUSSELL,

Deputy of the Minister of the Interior.

Department of the Interior.

Ottawa, 20th April, 1883.



LACHINE CANAL.

NOTICE TO CONTRACTORS.

Sealed tenders, addressed to the un-
 dersigned, and endorsed "Tender for the
 Formation of Basins near St. Gabriel
 Locks," will be received at this office
 until the arrival of the eastern and west-
 ern mails, on Wednesday, the 6th day of
 June next, for the formation of TWO
 SLIPS or BASINS, on the north side of
 the Lachine Canal, at Montreal.

A plan and specification of the work
 to be done can be seen at this office, and
 at the Lachine Canal Office, Montreal, on
 and after Tuesday, the 22nd day of May
 next, at either of which places printed
 forms of tender can be obtained.

Contractors are requested to bear in
 mind that tenders will not be considered
 unless made strictly in accordance with
 the printed forms.

An accepted bank cheque for the sum
 of \$2,000 must accompany each tender,
 which sum shall be forfeited, if the party
 tendering declines entering into con-
 tract for the works at the rates and on
 the terms stated in the offer submitted.
 The cheque thus sent in will be returned
 to the respective parties whose tenders
 are not accepted.

This Department does not, however,
 bind itself to accept the lowest or any
 tender.

By order,

A. P. BRADLEY,

Secretary

Dept. of Railways and Canal,
 Ottawa, 21st April, 1883.

FOR SALE,
PHOSPHATE PROPERTIES IN THE TOWNSHIP OF HULL.

MINERAL RIGHTS.

Lot No. 15, in the 7th Range.
" " 14, " 8th "
W $\frac{1}{2}$ of N $\frac{1}{2}$ " 6, " 11th "
S $\frac{1}{2}$ " 2, " 11th "
S $\frac{1}{2}$ " 12, " 11th "
S $\frac{1}{2}$ " 13, " 11th "
Lot " 1, " 12th "

For particulars and price apply at this office.

PLUMBAGO LOT FOR SALE

IN THE TOWNSHIP OF BUCKINGHAM,
On which are extensive surface shows and out-croppings of fine quality of Graphite. Price \$1,000. Further particulars to be had at this office.

PHOSPHATE PROPERTIES FOR SALE

IN THE TOWNSHIP OF WAKEFIELD.

Mining Rights on S $\frac{1}{2}$ of Lot No. 16, in the 1st Range.
" " on Lot No. 23, in the 2nd Range.
" " " No. 26, in the 4th Range.
" " " No. 20, in the 5th Range.

The fee simple of Lots Nos. 22 and 23, in the 4th range, (400 acres). All these lots have been carefully explored by experts and very favourably reported on; they are virgin properties and in the heart of the Phosphate Belt. For further particulars and price apply at this office.

PHOSPHATE PROPERTY

In the Township of Portland West,

FOR SALE.

Lots 25, 26, 27 and 28, in the 3rd range. Some excellent surface shows have been uncovered on these lots and only require capital for developing. Price and particulars given at this office.

ASBESTOS PROPERTY FOR SALE.

The mining rights on S $\frac{1}{2}$ of Lot No. 11, in the 8th range of Templeton. The mineral is of the finest quality of fibre and in large quantity. Specimens may be seen and particulars and price ascertained at this office.

PHOSPHATE PROPERTY

For Sale in North Burgess.

Mining Rights of W $\frac{1}{2}$ of 13 in the 5th range. About 100 tons very high grade Phosphate have been shipped from this property. Will be sold to an immediate purchaser for \$750. Apply at office.

FOR SALE,

White Marble Quarry on Calumet Island.

At this quarry there is an inexhaustible supply of most beautiful white marble. Price \$800. Specimens to be seen and information obtained at this office.

MINES AND MINERALS.

Developed and Undeveloped Mines and Minerals of Commercial Value
BOUGHT AND SOLD.

PROPERTIES EXAMINED AND ANALYSES MADE OF ORE OF EVERY DESCRIPTION.

A Competent Expert is permanently engaged for the purpose of making Unprejudiced Reports on all Mines placed in our hands for Sale, such reports being at all times open to intending purchasers for examination.

Phosphate, Iron, Iron Pyrites, Copper, Asbestos, Mica, Plumbago, Gold and Silver Mines, and Marble and Sandstone Quarries, For Sale.

MINERAL LANDS EXAMINED AND REPORTED ON BY OUR EXPERT; ALSO, ANALYSES OF MINERALS OF EVERY DESCRIPTION MADE BY A COMPETENT ASSAYIST.

Correspondence with Owners of Mines and Capitalists desirous of investing is most respectfully solicited.

Address all Communications to

The Publishers Canadian Mining Review,

Union Chambers, 14 Metcalfe Street, Ottawa, Canada.

CHOICE, (SELECTED) CLASS, 1

PRAIRIE FARM LANDS

FOR SALE

IN THE

LITTLE DISTRICT, MANITOBA.

Section.	Town-ship.	Range- West.	Acres.	
	3	14	23	640
	17	14	23	640
	15	14	23	640
	19	14	23	640
W $\frac{1}{2}$ and N. E $\frac{1}{4}$	35	14	23	480
N $\frac{1}{2}$ and S. E $\frac{1}{4}$	19	15	23	480
S $\frac{1}{2}$ and N. E $\frac{1}{4}$	15	16	23	480
E $\frac{1}{2}$ of N. W $\frac{1}{4}$	15	16	23	80
S $\frac{1}{2}$	3	17	23	320
N $\frac{1}{2}$	9	15	23	320
S. W $\frac{1}{4}$	31	18	26	160
			4,880	

Title direct from the Crown.

For price and field notes apply at this office.



TENDERS FOR TIMBER LIMITS IN THE N. W. TERRITORIES.

Sealed tenders, addressed to the undersigned, and marked "Tenders for Timber Berths," will be received at this office until noon on Monday, the 2nd day of July next, for Timber Berths in the North-West Territories, situated on the Moose Mountain, in the District of Assiniboine, and on the Bow River and its tributaries, above Fort Calgary in the District of Alberta.

Sketches showing the positions, approximately, of these berths, together with the conditions on which they will be leased, may be obtained at this Department, or at the Crown Timber Office, Winnipeg.

LINDSAY RUSSELL,
Deputy of the Minister of the Interior,
Department of the Interior,
Ottawa, 18th April, 1883.

TIMBER LIMIT

ON LAKE WINNIPEG

FOR SALE.

50 Square Miles.

This limit will be very valuable. Apply at this office for price and particulars.

FOR SALE

The mining rights on 100 of Phosphate Lands situated in the Township of Hull, Province of Quebec. All of which have been carefully selected and have excellent shows of Phosphate. The price asked for these lands is \$5 per acre and at this rate parties can purchase lots from 100 to 1,000. Specimens on view and all information given at

F. FOOKS,
Mineral Agent,
307 and 399 Wellington St., Ottawa.
Also, the Phosphate Lot No. 11 in the 8th range of the Township of Wakefield, containing 100 acres. Price \$1,000. (This is the property of Mr. Farley of Hull.)
Apply to F. FOOKS,
(Address as above.)