

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion
along interior margin/
La reliure serrée peut causer de l'ombre ou de la
distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear
within the text. Whenever possible, these have
been omitted from filming/
Il se peut que certaines pages blanches ajoutées
lors d'une restauration apparaissent dans le texte,
mais, lorsque cela était possible, ces pages n'ont
pas été filmées.
- Additional comments: /
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Continuous pagination/
Pagination continue
- Includes index(es)/
Comprend un (des) index
- Title on header taken from: /
Le titre de l'en-tête provient:
- Title page of issue/
Page de titre de la livraison
- Caption of issue/
Titre de départ de la livraison
- Masthead/
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

| | | | | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| 10X | 12X | 14X | 16X | 18X | 20X | 22X | 24X | 26X | 28X | 30X | 32X |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

MINING REVIEW

VOL. 1.—No. 13.

OTTAWA, NOVEMBER, 1883.

VOL. 1.—No. 13

Canadian Mining Review.

PUBLISHED MONTHLY.

ANNUAL SUBSCRIPTION - - - \$1.00
ADVERTISING RATES—15c. per line (12
lines to 1 inch).

OFFICE:

UNION CHAMBERS, 14 Metcalfe Street.

The CANADIAN MINING REVIEW is devoted to the opening up of the mineral wealth of the Dominion, and its publishers will be thankful for any encouragement they may receive at the hands of those who are interested in its speedy development.

Visitors from the mining districts as well as others interested in Canadian Mineral Lands are cordially invited to call at our office.

Mining news and reports of new discoveries of mineral deposits are solicited.

All matter for publication in the REVIEW should be received at the office not later than the 20th of the month it is to appear.

Address all correspondence, &c., to the Publishers of the CANADIAN MINING REVIEW, Ottawa.

THE office of the Keeper of Mining Records, in England, has been abolished, and the collecting of mine statistics in Great Britain will hereafter be conducted by inspectors under the surveillance of the Home Office.

FROM England and the United States money is coming abundantly to Canada for investment in her mining industries, and this, in addition to a large amount of local capital employed, is bringing about the rapid development of the mines throughout the Dominion. In Nova Scotia the gold mines are, in some instances, yielding more

per man employed than are those of any other gold region in the world, and latest reports go to show that the majority of the mines in the Province are being profitably worked. Some of the copper and iron mines are also paying well, though the latter mineral has not yet received attention commensurate with its presence, or the advantages of the fuel, fluxes, and ore beds occurring close together, and her coal fields have, for many years, been a source of great wealth to this Province. Coal is also profitably mined in New Brunswick, but the attempts that have been made to mine iron and copper ores in the Province have been attended with indifferent success.

In that portion of the Province of Quebec, known as the Eastern Townships, copper and asbestos mining has, for some years, been carried on most successfully, and in the County of Beauce alluvial gold mining gives employment to a large number of miners during the summer season. In Ottawa County phosphate mining has developed into an industry of great importance, and, although the plant and machinery required for the working of these mines is simple and inexpensive, capital is flowing in for the purpose of extending operations. The Haycock Iron Mine in the same County will shortly be in full blast under an entirely new management with ample capital to provide every necessary facility for the proper developing of the company's property.

In Eastern and Central Ontario a vast amount of money is invested in gold, iron, phosphate and mica mining, and in the

western portion of the Province, gold, silver, copper and iron mines are being vigorously worked, chiefly with American and English capital, notably the Silver Islet, and the Michipicoten and Lake Superior Native Copper Companies, while in the Lake of the Woods gold mines, and in the Rabbit Mountain and Huronian silver mines, there is more Canadian than foreign capital invested.

In Manitoba and the North West Territories the capital stock of the various mining companies that have been incorporated by Letters Patent, under the Canadian Joint Stock Company's Act, amounts, in the aggregate, to many millions of dollars, and the result of development work on these locations, which are chiefly gold, coal and copper, is anxiously awaited.

In British Columbia the mining industries are attracting much attention, and the mines are, for the most part, yielding profitably, in some instances under most unfavourable circumstances, and Californian and English capitalists are investing largely in the mineral districts of the Province.

From the Atlantic to the Pacific Coasts, throughout the entire breadth of the Dominion, the mineral wealth of Canada is being rapidly opened up, the mining industries are inviting foreign capital for circulation in the country, and are affording employment for innumerable miners, artisans and professional men, and the Dominion and Provincial Governments' annual reports of progress at the mines will be looked for with greater interest after the close of 1883 than at any former period in the history of Canadian mining.

CANADIAN APATITE.

* During the past month more than ordinary interest has been centered in the Phosphate Mining industry, and some important transactions have been recorded, notably the sale, to an American Company, of the famous Emerald Mine, in the Township of Buckingham, for \$125,000 cash, particulars of which will be chronicled in another column. Other properties are about to change hands, it is said, and if report be true, within a few weeks an additional half-million of dollars will be employed by incoming operators in the Phosphate Mining industry of the County of Ottawa.

Captain Robert C. Adams, of Montreal, one of the most experienced, and certainly one of the most successful phosphate miners of Canada, has issued a prospectus for a company to be incorporated that will assume the proprietorship of a large tract of phosphate land now owned by him in the mineral belt, and distributed over the Townships of East and West Portland and Templeton.

The Post Mine is said to be bonded to a Glasgow firm and hopes are entertained that a sale will be effected at a fair price.

Other developed properties have recently been examined and reported on by experts employed by intending investors, and, from what is known of some of these mines, there exists little doubt but that terms will be arrived at in some instances. The main object of the owners of these valuable properties have in view in offering them for sale, is the acquiring of capital that will enable them

to develop virgin properties that they own and on which are very promising surface indications. The developed mines that are being taken up by wealthy companies will become more productive in their hands; modern machinery will be introduced and capital will not be wanting for the most advantageous prosecution of mining operations.

The appearance of the mines throughout the country, the influx of capital, the opening up of new properties and the gradual rise in value of the ore in foreign markets are strong indications that the output for shipment next season will be much in excess of what was sent forward during the past summer. Another feature, which promises to popularize Canadian phosphate abroad next year, is the marked improvement in the quality of the mineral now lying at the mines, and of some that has already been forwarded to point of shipment. This year's experience has, no doubt, taught producers that it is greatly to their advantage to devote more attention, than has formerly been their practice, to the careful clobbering of their output, and, if they continue to clean up the mineral to the high state of purity which characterizes that which is now lying at the mines, shippers will have no difficulty in finding ready sale at best prices.

For the declining quotations during the past summer for Canadian apatite abroad, various theories have been advanced, but from what has come to our knowledge, we are of opinion that it has been confined to three distinct causes. The general temporary depression in the fertilizer trade has, of course, had much to do with the fall in value, and, as was stated in the last number of the REVIEW, the unclean condition of the bulk of Canadian phosphate prejudiced buyers against the mineral, while the third cause of sales having been slow, and at comparatively low figures, was the erroneous impression that went abroad as to the amount

of ore that was awaiting shipment, brought about by producers placing their output in the hands of two or three brokers at the same time for sale, who, in turn, offered it in England and Germany. The same lot being thus offered by different middlemen, conveyed the impression that the season's output was considerably in excess of what it actually amounted to, and stimulated the "bears" to action. These two last mentioned causes for the reduction in price can be easily obviated by producers sending their mineral forward in a clean state and employing but one broker to sell their output, and the MINING REVIEW will endeavour hereafter to keep dealers advised, from month to month, of the approximate amount of mineral raised throughout the district. The depression in the phosphate market is quietly passing away, and, although prices are better now than they have been, it is not premature in stating that they will rule still higher before the opening of the shipping season of 1884.

Another matter which should engage the attention of those who are interested in phosphate mining is the establishing of an assay office in Montreal where shippers could obtain analyses of their shipments before forwarding. The necessity for this is being felt more and more each year, and now that the industry has assumed such increased proportions, the combined patronage of the phosphate miners should amply employ a reliable man for this purpose.

Phosphate mining has become a very important industry in the County of Ottawa, and great improvements have been accomplished during the past few years at the mines, but in the handling of the output there exists ample room for reform which owners of properties will do well to bring about.

THE MINES.

THE "JACKSON RAE."—Of this mine little has been said in the REVIEW, as we had not been

put in possession of any facts concerning its condition, its yielding capacity, or its value. We are now indebted to Mr. Mason, the Superintendent, for a comprehensive description of the property that shows it to be justly entitled to a place among the prominent mines of the county. It is situated in the Township of Templeton, W $\frac{1}{2}$ of Lot 9, in the 10th Range, and is equipped with suitable machinery—a steam drill, hoist and ejector, all worked by the same power, are in operation. A tramway has been constructed from the end of the drift to the sorting shed, and work is conducted in a most systematic manner. The quality of the mineral is of a high grade, the past season's shipments having averaged something over 80 per cent. The mine itself is looking well and with the peculiar facilities for carrying on mining operations it should be a profitable property.

THE "POST MINE," adjoining the "Jackson Rae," it is stated, will shortly change hands and has been idle for some time back, pending the arrival from abroad of an expert to examine it in the interest of the intending purchasers.

THE "MCLAURIN MINE" is being steadily worked, and other mines in Templeton are employing a fair number of miners. One property, in the 6th Range, has, within the past few days, been leased to two gentlemen of Ottawa and Montreal, who are now engaged in equipping the mine with necessary plant for the winter's operations.

IN PORTLAND WEST the "High Rock" and the "Union Phosphate Mining and Land Company's" Mines are being vigorously worked as heretofore, and are yielding large quantities of mineral. At other mines in this township good work is being done, and in the 10th Range, on Captain Adams' lots, numerous deposits of mineral have been discovered, the result of careful prospecting.

IN PORTLAND EAST the "Dominion Phosphate Company" have, for weeks past, been working in mineral at the North Star Mine, which is developing into one of great value. At other mines in the township, the "Philadelphia," the "McLaren," and the "French Company's," there is the usual activity, and a considerable amount of mineral is being raised.

IN BUCKINGHAM TOWNSHIP the "Emerald" attracts the most attention and sufficient has been said of this property to convey some idea of the extent of its yielding capacity—it is almost unlimited—and it is expected that this mine will become more productive than ever before in the hands of its present owners, who are men of wealth and experience.

IN THE TOWNSHIP OF WAKEFIELD the "Gemmill" is developing satisfactorily and the quality of mineral continues to be of a uniform high standard.

In every direction throughout the County of Ottawa, miners are busy, and it is very satisfactory to receive the favourable reports that have reached us from nearly all the mines where active operations are in progress.

In the December number of the REVIEW we will publish a correct statement of total production in the county for the year, and, as nearly as possible, the individual output of each mine.

Phosphate Quotations.

The most recent intelligence that has reached us in regard to the probable value of Canadian apatite for the coming season is that offers have come from buyers in England and Germany for delivery next summer at 1s. 3d. per unit guaranteed 80 per cent. mineral.

We are informed that Mr. W. H. Williams, the energetic President and General Manager of the Union Phosphate Mining and Land Company, will shortly sail for England to complete permanent arrangements for the receiving of the annual output of the company's mine.

A NEW COMPANY.

A prospectus is out for the "Adams Phosphate Mining Company" (limited), the objects of which are the acquiring of certain Phosphate areas, now owned by Capt. R. C. Adams, of Montreal, to mine, buy, and sell phosphate and to buy, develop and sell phosphate lands. The capital stock of the company will be \$250,000, divided into 25,000 shares of \$10 par value each. The working capital to be \$50,000, part of which will be held as a reserve for the purchase of other lands, apart from Capt. Adams' locations, which are situated in the Townships of Templeton, and East and West Portland, comprising a total area of about 2,000 acres. These locations are offered to the company for \$50,000 cash, and 40 per cent. of the capital stock; and Capt. Adams, who

widely known among phosphate shippers and buyers in Canada and abroad, will assume the management of the company's business. His long experience in phosphate mining in Canada should eminently fit him for the position of General Manager, and should render his services in this capacity invaluable to such a company.

ANOTHER CRAFT

FOR THE

RIVIERE DU LIEVRE.

Mr. W. A. Allan of this city, who has acted so prominent a part in the development of Phosphate mining in Canada, has purchased the steam yacht *Rocket* and will place her on the river next summer. She is now lying in the Ottawa River at Buckingham wharf, awaiting good winter roads before being forwarded to the lower landing on the du Lièvre, from which point she will make her first trip up the river on the opening of navigation next summer.

The 60 ton scow which went to the bottom of the Rivière du Lièvre some weeks ago, of which particulars were published in last month's edition of the REVIEW, has since been successfully raised, and the greater portion of the phosphate with which she was laden has been recovered. The scow was in no way injured beyond having sprung a leak, which caused her to sink, and this proves that the builders who designed and constructed her understood their business. The operation of raising this craft was a crucial test of her strength, but she resisted it and came to the surface apparently uninjured.

OTTAWA COLONIZATION RAILWAY.

Since the work of construction was suspended on the Ottawa and Gatineau Valley Railway the engineers have been employed on the survey of the Colonization Railway from Buckingham village northward. Latest advices from their camp report that an excellent location has been staked out as far as the Little Rapids on the Rivière du Lièvre, and that no engineering difficulties have been encountered. The survey will be pushed forward to the High Falls, and when the route has been definitely located it is expected that the construction of the line will be begun, and when completed the road will necessarily become an important factor in the mining industry of the district it is to traverse.

MINES SOLD.

SALE OF THE EMERALD MINE.— During the past few years many valuable phosphate mines in the County of Ottawa have changed hands, sales at fair prices having been made to English, American and

Canadian capitalists, but the most important sale of property in the history of phosphate mining in Canada was concluded on the 9th instant, when Mr. W. A. Allan of this city sold the famous Emerald Mine to a company of American gentlemen, for the sum of \$125,000 cash. Two months prior to the date of the sale, Mr. Allan, who had been owner of but one-half of the property, became sole proprietor on payment, to his co-owner, of \$40,000.

The property is situated in the Township of Buckingham, County of Ottawa, and is universally admitted to be one of great value. Its present owners are more than satisfied with their purchase, and hold the mine at a valuation greatly in excess of the amount paid for it.

The firm of Ledoux & Richetts, of New York, who enjoy the reputation of being mining engineers of the highest standing, were engaged to report on the property, in the interest of the purchasers, and Mr. W. deL. Benedict was promptly dispatched by them to make the necessary examination. Upon his report, which was a most flattering one, the sale was consummated. Mr. Benedict is a mining engineer and expert who has been engaged on several occasions to examine phosphate deposits in Canada, and his reports have shown that he possesses more than ordinary ability and practical knowledge.

Mr. Allan is to be congratulated upon receiving such a handsome sum for his property, and Messrs. Fanchot, Sweet and Paige, representing the purchasers, are to be envied the possession of the Emerald, the most valuable mine yet discovered in Canada.

The phosphate property known as the "Brown Mine," in the 8th Range of Portland West, has been sold within the past few days to English capitalists for \$22,000 cash. Mr. A. G. Cole, of this city, purchased the property not more than a year ago, at a moderate price, and although he has received a handsome advance on his outlay, the purchasers have received fair value for their investment. Mr. Hepworth Brown, a mining engineer, was sent from England to examine and report on the mine, and upon his advising its purchase, negotiations were concluded. One deposit of great extent exists on the property, and many less important ones have been uncovered. About 50 tons of phosphate have been mined, and it is the intention of the present owners to prepare for active mining operations without loss of time.

It is currently rumoured, and with some authority, that Mr. W. A. Allan contemplates purchasing the "Watt Mine" in the Township of Portland East, immediately south of the Little Rapids. This mine was successfully worked by the

Buckingham Mining Company until their suspension, and a large quantity of high grade phosphate was raised. The deepest shaft known to have been sunk at any phosphate mine in Canada is on this property, a depth of 187 feet having been reached, in the bottom of which there is a large body of mineral. Other openings on the lot expose veins of more than ordinary dimensions and a large amount of high grade phosphate is in sight. Mr. Allan has ten men busily engaged in prospecting the ground, and it is more than probable that before this number of the REVIEW issues he will have become the owner of this valuable property.

Since writing the above we have received positive information that Mr. Allan has purchased the "Watt Mine," and will proceed with mining operations during the winter, which will be confined to the development of the deposits near the surface. The deep shafts on the property will not be emptied or worked before next summer.

The Halifax *New Era* records the sale of a gold mine by Messrs. Adams & DeCamp, to the Oxford Gold Mining Company for \$25,000. The property is an extension eastwardly of the Oxford location at Chezzetcook, and was not long since purchased by Messrs. A. & DeC.

ZINC IN CANADA.

Until recently no deposit of zinc of any consequence had been discovered in the Dominion. Many of the metaliferous veins which had been worked, especially those of copper, lead, and silver, contained more or less blende or "black jack," which is the sulphide of the metal. In working the Victoria lead mine, in the neighbourhood of the Sault Ste. Marie, this mineral occurred in considerable proportions. At Blende Lake, near the head of Thunder Bay, fine crystalline bunches of blende are found in a calcspar vein, but the quantity did not prove sufficient to pay for the working of so low priced an ore.

About three years ago the McKeller Brothers, of Fort William, discovered a number of large deposits of zinc blende about ten miles back from Lake Superior on a small stream called the White Sand River, which falls into the north side of the lake a short distance east of Nipigon Bay. At the first meeting of the Royal Society in this city in May 1882, Professor Bell, of the Geological Survey, presented a short paper, accompanied by a map, in regard to this discovery. It appears that the blende here occurs under different conditions from any of the deposits which had been previously known in Canada. Instead of being scattered in a vein, it takes the form of solid crystalline masses, of great size, following the stratification in a hornblende rock. One of

these masses was stated to measure 70 feet in length by about 15 feet in breadth at the middle. A number of smaller masses were exposed at the locality, and another supposed to be the largest of all was found by "costeaning," but its extent was not ascertained. The ore is black and resembles coarsely crystalline magnetic iron. A specimen brought down by Dr. Bell was analysed by Mr. Hoffmann and found to contain 54 per cent. of metallic zinc.

Blende occurs under similar conditions in Scandinavia, and the discovery above referred to shows that new forms of ores of great importance may be found in this country where their existence has not hitherto been expected.

MINING NOTES.

It is stated that at a depth of 680 feet the borings have produced a continuous flow of oil in the wells at Billiveau, Albert County, N.B., also that the oil is remarkably pure.

Development at the Gold Mines near Bridgewater, N.S., has been productive of encouraging results. One lode has increased from 8 inches in width on the surface to 15 inches at a depth of 80 feet, and the quartz is said to carry an unusual quantity of gold.

About twenty tons of anthracite coal has been forwarded to Winnipeg, consigned to the Canadian Pacific Railway Company, to undergo an official test. The seam from which this shipment was taken is situated on Devil's Head Creek, in the Rockies, but the owners will not operate the mine before early in next year.

The bullion shipment from the Oxford, N.S., Gold Mine on the 12th inst. was 197½ ounces. This is the result of crushing 90 tons of ore for the two weeks previous, during which time the mill was one day idle. The greater portion of this shipment was from the company's newly acquired lode, referred to in another column, which is said to be yielding liberally.

A Boston Company has resumed work at the Copper Mines of Dorchester, N.B. The company is giving its attention at present chiefly to the erection of suitable buildings and machinery and it is expected that mining operations will be conducted on a large scale under the supervision of a well known and experienced mining engineer. At present there are about fifty men employed.

The disparaging rumours which have reached us of late concerning the industrial condition of the Coxheath, N.S., Copper Mine are said to be unfounded and we are pleased to be able to report that the prospects at the mine are of a very

encouraging nature. The company is well satisfied with the result of recent development and believes that the mine has increased in value of late in a marked degree.

LAKE OF THE WOODS.

Our advices from this district are up to the 21st inst. The Winnipeg Consolidated Mine had lately procured another small brick of gold of sufficient value to pay working expenses. This mine is now sufficiently developed by the two levels, each of which is driven a considerable distance from both sides of the main shaft, to produce more ore than the present mill could crush, and a new ten-stamp mill was ordered from Messrs. Fraser & Chalmers, of Chicago. This mill is said to have been already shipped and will be teamed to the mine at Big-stone Bay as soon as the ice is strong enough.

The Manitoba Consolidated Mine at Clearwater Bay, is the only other one at which any work is being carried on at present. The Argyle Mine in the same neighbourhood has suspended operations. It is said that, owing to mismanagement, the available funds of the Company have been exhausted without a thorough test of the property having been made.

The Pine Portage Mine is awaiting the arrival of hoisting and ventilating machinery before the sinking of the shaft can be continued with advantage. A considerable pile of rich ore is on hand at this mine.

Owing to various causes, although apart from the merits of the mines themselves, great dullness in connection with this branch of industry is reported from the whole of the Lake of the Woods district.

COAL MINING IN BRITISH COLUMBIA.

In June of 1881 the Vancouver Coal Company, under the personal supervision of Mr. Jas. Beaumont, mining engineer, commenced the sinking of No. 1 shaft on the Esplanade, near the Indian reserve. The shaft reached the coal about 10 o'clock on Friday night, the 2nd inst., at a distance of 635 feet from the surface. The next morning it was ascertained that the seam was 7 feet 4 inches in thickness, with a slight pitch towards the harbor. The coal is clean and hard and of a very superior quality. This proves a large extent of the company's valuable property, and has inspired confidence in the future of the city of Nanaimo.

The shaft is a round one, 20 feet in diameter, clear of the wooden blocks which line the shaft. The arrangements around the shaft, with the double cages, will enable the company to take out a thousand tons of coal daily.

One very gratifying feature in connection with this work, and one that reflects highly on the skill and carefulness of Mr. Beaumont, is the fact that this immense shaft has been sunk to a depth of 635 feet without inflicting a serious injury on anyone.

Great difficulty has been experienced, owing to the immense amount of water to handle, and the presence of large quantities of sulphur. The latter, at times, almost blinded the men, and compelled the adoption of three hour shifts.

On Monday, the 15th inst., the traditional bullock was roasted whole, and subsequently, by invitation of Mr. Jas. Beaumont, on behalf of the Vancouver Coal Company, the employees of the company, to the number of 250 or more, and several invited guests, sat down to a sumptuous dinner in the Institute Hall.

THE MINERAL RESOURCES OF THE NORTH-WEST TERRITORIES.

"Prospect the breadth of Canada on either side of the advancing railway (C.P.R.) but more particularly opposite to Western Dakota, Montana and Idaho, for vein mining, and thence westward for gravel and placer gold, where vast mineral areas lie unexplored!" Such is Mr. Phillips' advice to Canadians and others, given in his letter to the *London Mining Journal* and re-published in the REVIEW. That he is sincere in his expressed interest in Canada's future as a mineral producing country there exists no reason to doubt, and that he is correct in his opinions as to the mineral wealth of that portion of the N. W. Territories specially referred to, there is good reason to hope. Having predicted a prosperous future for the country, he now volunteers valuable advice as to how this prosperity can best be attained—encourage and protect the explorer! Such is the advice given us, and, in view of Mr. Phillips' extensive knowledge of mining in the United States, he is competent to point out where the mining laws of his country have been defective, and to offer valuable suggestions to guide the Government of Canada in framing suitable laws for the protection of honest and hardworking explorers. It is with much pleasure, therefore, that we publish the following letter just received, which applies more particularly to locating claims for the precious metals, and we commend it to our readers as worthy of careful perusal:—

Editor CANADIAN MINING REVIEW.

PRE-EMPTION OF MINERAL CLAIMS.

Responsive to your desire for a letter from my hand, I select the above immediately important subject, and forward the following thoughts as to the best mode for perfect security in tenure of mineral lands.

In thanking you for the repetition of my recent letter to the *Mining Journal* (of London), on the "Mineral Resources of Canada," I may reiterate the opinion that "there will be very important discoveries made just continuously northward from the Rocky and Wahsatch mountains, extending for a thousand miles across the Dominion of Canada, on the slopes of these mountain ranges, that will surpass anything yet found in your country;" therefore the time and opportunity are convenient for immediate action in framing appropriate common-sense laws, so as to prevent expensive, vexatious and retarding litigations in future mining operations.

Give your brave frontiersmen, prospectors and miners fair play, and foster them by generous and certain privileges!

Make laws that wayfaring men may understand! for equitable majesty and not inglorious legal uncertainty!

We have too many inherent risks in interior mining life; and "legal cap" should be exchanged for percussion, so that the killing of the vicious beast may preserve the man.

The reader may, at his leisure, retrospect the plexiform complications of evidence and questionable decisions of the past, as generated under the too theoretical laws of "following the vein by its sinuosities, angles, dips and spurs; intersections, faults and divisions; by pockets and bonanzas; complicated breaks and uncertainties; of no vein or another's vein; the proof and counter proof; possession or dispossession, by shot guns, shooters and rifles; and suck-like disparagements to the substantial industry of mining.

I would now call your attention to, and define the leading points and features of, a better and safer system by the following few words:

1st. Allow the discoverer of mineral a preliminary right of, say, one thousand feet radius to swing a 2,000 feet circle, for the period of, say, one month from date of his discovery, as claimed by the paper of location, on the spot where the mineral has been found, at the centre of this "discovery circle."

2nd. During this month of protection by 1,000 feet radius, he must examine his vein or deposit as to its bearing, and dip for future development, under the final or permanent rectangular grant of, say, 2,000 feet long by 1,000 feet wide, which he must swing into position and define by corner monuments,

before the month expires, as he may please to direct, provided the first discovery or centre of the "discovery circle" is within its lines. Should he fail to fix his bearings for position during this privileged month, outsiders may then locate and claim in any direction to within 1,000 feet of his first centre.

Extension claims should not necessarily be rectangular, as this would prevent correction for bearings, but opposite sides must be parallel.

3rd. The four monumental columns being thus placed at the corners will bound the surface area, and his mineral rights should be restricted by imaginary vertical planes suspended from corner to corner, at both sides and ends, so that he may take all that lies within but nothing from outside.

In other words, his claim is an inverted rectangular solid pyramid from the surface to the centre of the globe, from which he may extract minerals from any number of veins or deposits therein contained, to any practical depth, within its vertical sides, but nothing from outside of this block of country rock. Thus defined his right is so clear to all that none may be excused for trespass.

4th. Should any company of miners, during the development of first vein, discover another vein that dips outwardly, before the adjoining side ground has been claimed by others, the first party should be allowed a lateral extension of, say, 500 feet wide for the whole length of their original pre-emption.

5th. Tunnel privileges for the purposes of cross cutting through hills or mountain slopes in speculative search for veins and deposits, ought to be encouraged, and such grants should command at least 1,000 feet on each side of the drift.

6th. Mineral grants should not be allowed to remain idle for unreasonable periods, and a statute should be provided for the ejection of "dogs in the manger."

This positive, unquestionable title will secure all from encroachments, and therefore should be strongly advocated in new countries by every true friend of the miner.

J. S. PHILLIPS,

Author of *The Explorer's, Miner's, & Metallurgist's Companion.*

25 State St., New York.

A WESTERN EL Dorado.

Rich Mineral Discoveries in Idaho—Gold and Silver in large Quantities.

There is great excitement throughout Western Montana over rich mineral discoveries in Cœur Dalene Mountains. Prospectors who have returned state that no mines have ever been discovered in the history of the Western States and Territories equal in richness and volume to the

newly discovered fields. The minerals consist of silver, tellure, and free-milling gold. A hundred dollars per man per day is being taken out of the rim rock of gulches, while in the gulches \$25 to \$30 per man per day is panned out. The streams are in the northern part of Idaho, near Eagle City, forty miles from Bozeman on the Northern Pacific Railway. There are now about five hundred people in the camp.

DIVIDENDS.

THE HORN SILVER MINING COMPANY, Utah, have declared a quarterly dividend of 50 cents a share; aggregating \$200,000. Total dividends this year \$1,100,000.

THE UNITED VERDI COPPER MINING COMPANY, of Arizona, paid its first dividend on the 31st Oct., of 12½ cents per share, aggregating \$37,000.

THE HOMESTAKE MINING COMPANY, Dakota, has declared its regular dividend this month of 25 cents per share, aggregating \$25,000. Total dividends this year, \$500,000.

THE ONTARIO SILVER MINING COMPANY, Utah, has resumed its regular dividends, and the 89th, amounting \$75,000, was to be paid November 10th. Total dividends paid to date, \$9,075,000.

THE STANDARD CONSOLIDATED MINING COMPANY, of California, has declared its monthly dividend of 25 cents per share, payable November 12th. Total dividends to date \$4,325,000.

THE EVENING STAR MINING COMPANY, of Colorado, paid its 56th dividend this month, aggregating \$25,000, making the total of dividends to date, \$1,400,000.

MINERAL RESOURCES

OF THE

UNITED STATES.

Some interesting details are given in a report about to be issued, for 1882, and the first six months of 1883, by Mr. Albert Williams, jun., chief of Mining Statistics and Technology division, United States Geological Survey, and an abstract from the advance sheets furnishes the totals of the production of the more important mineral substances. **COAL**—The only statistics in which the trade is interested are those relating to the amount of coal which is mined for and reaches the market. There is besides a coal and colliery consumption which is usually disregarded in statistics, and which ranges from 5 to 6½ per cent. on the total shipments. Of what may be called the commercial product, the quantities in 1882 were: Pennsylvania anthracite, 29,009,666 gross tons; bituminous,

brown coal, lignite, and small lots of anthracite mined outside of Pennsylvania, 57,963,038 gross tons: total, 87,083,134 gross tons. The spot value of the commercial product was as follows: anthracite, \$65,520,216; bituminous and other coals, \$72,452,797; total, \$137,973,013. During the first six months of 1883 the output was: Pennsylvania anthracite, 14,010,767 gross tons; bituminous and all other coals, 30,000,000 gross tons: total, 44,001,767 gross tons. The spot value of the commercial product during the first half of 1883 was: Pennsylvania anthracite, \$31,524,226; bituminous and other coals, \$37,500,000; total, \$69,024,226. Including the local consumption, etc., the total product in 1882 may be stated at 92,219,454 gross tons—31,358,264 tons of Pennsylvania anthracite and 60,861,190 gross tons of other coals; and the value at the mines was: Pennsylvania anthracite, \$70,556,094; bituminous coal, etc., \$76,076,487; total, \$146,632,581.

IRON—The principal iron statistics for 1882 are as follows; Pig iron made, 4,623,323 gross tons; spot value, \$106,336,420. Iron ore mined, 9,000,000 gross tons; spot value \$32,400,000. Domestic iron ore consumed, 8,700,000 gross tons; spot value, \$31,320,000. Imported iron ore consumed, 589,655 gross tons. Total iron ore consumed, 9,289,655 gross tons. Total spot value of all iron and steel in the first stage of manufacture, excluding all duplication, \$171,336,429. Anthracite consumed in all iron and steel works, including furnaces, 3,800,000 gross tons. Bituminous coal consumed in all iron and steel works, including furnaces, 6,600,000 gross tons. Coke consumed in all iron and steel works, including furnaces, 3,350,000 gross tons. Charcoal consumed in all iron and steel works, including furnaces, 107,000,000 bushels. Limestone consumed as flux, 3,850,000 gross tons; spot value, \$2,310,000.

For the first six months of 1883 the totals are as follows: Pig iron made, 3,352,019 gross tons; spot value \$47,040,380. Iron ore mined and consumed, 4,500,000 gross tons; spot value, \$12,375,000. Imported iron ore consumed, 185,000 gross tons. Total iron ore consumed, 4,685,000 gross tons. Total spot value of all iron and steel in the first stage of manufacture, excluding all duplications, \$71,000,000. Anthracite consumed in all iron and steel works, including furnaces, 1,810,000 gross tons. Bituminous coal consumed in all iron and steel works, including furnaces, 3,140,000 gross tons. Coke consumed in all iron and steel works, including furnaces, 1,780,000 gross tons. Charcoal consumed in all iron and steel works, including furnaces, 38,750,000 bushels. Limestone consumed as flux, 1,950,000 gross tons: spot value, \$1,072,500.

GOLD AND SILVER—The Mint

authorities furnish the following statistics for 1882.—Gold, \$32,500,000; silver, \$46,800,000; total \$79,300,000; or an increase of \$1,600,000 over the output in 1881. For the first six months of 1883 the product is estimated at \$16,250,000 gold, \$23,400,000 silver, and \$39,650,000 total; the rate of production being assumed to be the same as in 1882.

PETROLEUM—The production of crude petroleum in the oil fields of Pennsylvania and New York in 1882 was 30,053,500 barrels of 42 gallons each, worth, at an average spot value of 78½c. per barrel, \$23,704,698. During the first half of 1883 the yield was 11,291,663 barrels, worth, at an average spot value of \$1.00½ per barrel, \$11,305,778. In addition to the quantity above stated, California produced in 1882 about 70,000 barrels.

COPPER—The production of copper in 1882 was 91,646,232 lbs., worth, at an average value of 17½c. per pound in New York, \$16,038,091. For the first half of 1883 the production is estimated at 58,000,000 lbs., worth, at an average price in New York of 14.65c. per pound, \$8,500,000. The spot value of copper at the point of production is a matter which cannot be stated with any accuracy; nor was any attempt made to ascertain the tons of copper ore mined. In 1882, 3,325,000 lbs. of bluestone, worth \$191,187, were made; and in the first half of 1883 the manufacture of bluestone is estimated at 1,662,500 lbs., worth \$95,593.

LEAD—In 1882, 132,890 net tons of lead were produced, worth, at an average value of \$95 per net ton on the eastern seaboard, \$12,624,550. For the first half of 1883 the production is estimated at 70,000 net tons, worth, at \$90 per ton, \$6,300,000. In this case, as with copper, it is impossible to state the average spot value of the lead, or the tons of lead ore mined. A very large proportion of the lead ore smelted is argentiferous, and is worked for its silver contents and not for the value of the lead. In the census year ending May 31, 1880, the amount of white lead corroded was reported at 123,477,890 lbs., worth \$8,770,699.

ZINC—The production of metallic zinc in 1882 was 33,765 net tons, worth, at an average value of 5.4c. per pound in New York \$3,646,620. The production during the first six months of 1883 is estimated at 18,000 net tons, worth, at an average value of 4½c. per pound in New York, \$1,665,000. In addition to the spelter and sheet zinc made in this country there is also a large manufacture of zinc oxide made directly from the ore. As in the case of copper and lead it is impossible to fix an average spot value for the product, and the collection of statistics of zinc ore mined has not been attempted. In the census year 1880 the amount of zinc oxide manufactured, including that made

from scrap zinc, was reported at 20,121,761 lbs., worth \$766,337.

QUICKSILVER—In 1882 the production of quicksilver was 52,732 flasks (of 76¼ lbs. each - 4,033,998 lbs.), worth, at an average price in San Francisco of 36½c. per pound, \$1,487,537. During the first six months of 1883 the production was 22,740 flasks (= 1,739,610 lbs.), worth, at an average price of 35½c. per pound, \$613,213. During the year 1882 700,000 lbs. of vermilion were made in the United States, having a total value of \$315,000.

NICKEL—The production of pure grain nickel in 1882 was 277,034 lbs., worth at \$1.10 per pound, \$304,737. There was also a production of 50 per cent. copper nickel alloy containing 4582 lbs. of nickel, worth \$5,040. The total nickel production was therefore 281,616 lbs., worth \$309,777. The only nickel reduction works in the United States were closed during the first half of 1883.

COBALT—The value of cobalt ores and matte for 1882 was about \$15,000. The amount of cobalt oxide made was 11,653 lbs., worth \$32,040.

MANGANESE—The production of manganese ore in 1882 was 3,500 gross tons, and the spot value at the mines, estimated at \$15 per ton, was \$52,500.

CHROMIUM—The production of chrome iron ore in 1882 was about 2,500 net tons, worth, at an average price of \$40 per ton in Baltimore, \$100,000. The spot value cannot be ascertained.

TIN—A trifling amount of tin ore was mined in 1882 and the first half of 1883, and production of metallic tin began on a small scale towards the close of the latter period.

ANTIMONY—The production of metallic antimony, so far as ascertained, was 60 tons in 1882, worth about \$12,000.

BUILDING STONE—It is estimated that the value of the building stone quarried in 1882 was \$21,000,000.

BRICK AND TILE—It is estimated that the total value of the brick and tile made in the United States in 1882 was \$34,000,000.

LIME—There were 31,000,000 barrels (of 200 lbs. each) made in 1882, having a total spot value of \$21,700,000 at the kilns.

CEMENT—The amount of artificial Portland cement made in 1882 was 85,000 barrels, worth, spot, \$191,250. Of the cement manufactured from natural cement rock there were 3,165,000 barrels made, worth, spot, \$3,481,500. The total production of cement was 3,250,000 barrels, worth \$3,672,750.

PHOSPHATES—The production of washed phosphate rock in 1882 by the land mining companies of South Carolina was 191,305 gross tons; spot value, \$1,147,830. By the river mining companies, 140,772 gross tons, spot value, \$844,632. Total 332,077 gross tons; spot value, \$3,992,462.

Incorporated Dividend-Paying Mines of the United States.

| NAME AND LOCATION. | Latest quotation per share. | Current value of Mine. | Number of Shares. | Par Value. | Capital Stock. Dollars. | Last Assessment. | | No. of Assessment. | Total Assessment to date. | Last Dividend. | | Total Dividends to Date. | |
|--|-----------------------------|------------------------|-------------------|------------|----------------------------|----------------------|-------------------|--------------------|---------------------------|----------------------|-------------------|--------------------------|---------|
| | | | | | | Date. | Amount per Share. | | | Date of Payment. | Amount per Share. | | |
| Alice G. and S. M. Co., Montana..... | \$2 56 | \$1000000 | 400000 | \$25 | 10000000 | not assessable.. | ..... | ..... | ..... | Dec. 15, 81..... | 10 | 10 | \$40000 |
| Amie Con. Mining Co., Col..... | 13 | 65000 | 500000 | 10 | 5000000 | ..... | ..... | ..... | ..... | October 2, 83..... | 7 | 7 | 33000 |
| Atlantic Copper M. Co., Michigan..... | 10 00 | 400000 | 40000 | 25 | 1000000 | April 5, 75..... | ..... | 180000 | ..... | Feb. 1, 83..... | 4 | 4 | 22000 |
| Bassick Mining Co., Colorado..... | 8 50 | 850000 | 100000 | 100 | 10000000 | ..... | ..... | ..... | ..... | June 26, 83..... | 1 00 | 3 | 22500 |
| *Black Bear Quartz Gold M. Co., California..... | ..... | ..... | 30000 | 100 | 3000000 | ..... | ..... | 15000 | ..... | May 11, 83..... | 20 | 83 | 88100 |
| Boston & Montana Gold M. Co., Montana..... | ..... | ..... | 200000 | 10 | 2000000 | ..... | ..... | ..... | ..... | Jan. 16, 83..... | 05 | 17 | 31000 |
| Bodie Con. Mining Co., California..... | 60 | 50000 | 100000 | 100 | 10000000 | August 4, 83..... | 5 | 250000 | ..... | Nov. 15, 82..... | 20 | 21 | 137000 |
| Bulwer Con. Mining Co., California..... | 40 | 40000 | 100000 | 100 | 10000000 | December 12, 77..... | 1 | 30000 | ..... | July 2, 83..... | 05 | 18 | 16500 |
| Chrysolited Silver Mining Co., Colorado..... | 1 45 | 2900000 | 200000 | 50 | 10000000 | not assessable.. | ..... | ..... | ..... | Dec. 10, 81..... | 05 | 11 | 160000 |
| Consolidated Gold Mining Co., Georgia..... | ..... | ..... | 100000 | 5 | 5000000 | " | ..... | ..... | ..... | October 10, 83..... | 02 | 27 | 10600 |
| California Gold Mining Co., Gilpin Co., Col..... | ..... | ..... | 130000 | ..... | ..... | ..... | ..... | ..... | ..... | August 13, 83..... | 25 | 2 | 6500 |
| Calumet & Hecla Copper M. Co., Michigan..... | 238 00 | 23800000 | 100000 | 25 | 2500000 | ..... | 15 00 | 1200000 | ..... | Nov. 15, 83..... | 5 00 | ..... | 2435000 |
| Carbonate Hill Mining Co., Col..... | ..... | ..... | 200000 | 10 | 2000000 | ..... | ..... | ..... | ..... | July 2, 83..... | 05 | 6 | 6000 |
| Catalpa Mining Co., Leadville, Col..... | 25 | 75000 | 300000 | 10 | 3000000 | not assessable.. | ..... | ..... | ..... | June 15, 83..... | 10 | 5 | 2400 |
| Castle Creek Gold (Placer) M Co., Idaho..... | 1 20 | 120000 | 100000 | 1 | 100000 | ..... | ..... | ..... | ..... | Nov. 16, 83..... | 04 | 18 | 5500 |
| Central Copper M. Co., Michigan..... | 21 50 | 430000 | 20000 | 25 | 500000 | Sept. 10, 61..... | 65 | 100000 | ..... | Feb. 1, 83..... | 3 00 | 21 | 16700 |
| Christy Mining Co., Silver Reef, Utah..... | ..... | ..... | 60000 | 100 | 6000000 | ..... | ..... | ..... | ..... | Feb. 9, 83..... | 10 | 15 | 9000 |
| *Contention Company, Arizona..... | ..... | ..... | 250000 | 50 | 12500000 | ..... | ..... | ..... | ..... | June 28, 83..... | 25 | 18 | 10625 |
| Copper Queen Mining Co., Bisbee, Ariz..... | ..... | ..... | 250000 | 10 | 2500000 | ..... | ..... | ..... | ..... | October 16, 83..... | 50 | 17 | 10250 |
| Crescent Mining Co., Utah..... | ..... | ..... | 600000 | ..... | ..... | ..... | ..... | ..... | ..... | October 25, 83..... | 05 | 4 | 1060 |
| Deadwood-Terra Mining Co., Black Hills..... | ..... | ..... | 200000 | 25 | 5000000 | not assessable.. | ..... | ..... | ..... | Jan. 20, 83..... | 10 | 26 | \$9000 |
| Dean Mining & Prospecting Co., of Col..... | ..... | ..... | 100000 | ..... | ..... | ..... | ..... | ..... | ..... | Dec. 1, 82..... | 50 | 1 | 5000 |
| Dunkin Mining Co., Col..... | 20 | 40000 | 200000 | 25 | 5000000 | ..... | ..... | ..... | ..... | October 2, 83..... | ..... | 16 | 2100 |
| Evening Star Mining Co., Col..... | ..... | ..... | 50000 | 10 | 500000 | not assessable.. | ..... | ..... | ..... | Nov. 25, 83..... | 50 | 56 | 14000 |
| Eureka Con. Silver M Co., Nevada..... | 3 75 | 187500 | 50000 | 100 | 5000000 | Sept. 20, 83..... | 1 00 | 6 300000 | ..... | July 27, 82..... | 25 | 25 | 48175 |
| Father DeSmet Con. Gold M. Co., Dakota..... | 3 50 | 350000 | 100000 | 100 | 10000000 | Nov. 13, 78..... | ..... | 2 200000 | ..... | October 30, 83..... | 20 | 29 | 7000 |
| Franklin Copper Mining Co., Mich..... | 11 00 | 594000 | 54000 | ..... | ..... | June, 77..... | ..... | 360000 | ..... | ..... | ..... | ..... | 2400 |
| Grand Central Mining Co., Tombstone, Ariz..... | ..... | ..... | 100000 | 100 | 1000000 | ..... | ..... | ..... | ..... | December, 82..... | 50 | 16 | 8000 |
| Great Western Quicksilver M. Co., Cal..... | ..... | ..... | 50000 | 100 | 5000000 | August 25, 73..... | 15 | 35500 | ..... | October, 82..... | 25 | ..... | 2625 |
| Hecla Con. Mining Co., Montana..... | ..... | ..... | 30000 | 50 | 1500000 | ..... | ..... | ..... | ..... | October 1, 83..... | 50 | ..... | 5225 |
| Homestake Mining Co., Deadwood, Dakota..... | 10 00 | 1250000 | 125000 | 100 | 12500000 | April 8, 78..... | ..... | 2 200000 | ..... | Nov. 24, 83..... | 20 | 63 | 22125 |
| Holyoke Mining Co., Idaho..... | ..... | ..... | 200000 | ..... | ..... | ..... | ..... | ..... | ..... | Nov. 19, 83..... | 02 | 14 | 5800 |
| Horn Silver Mining Co., Utah..... | 6 50 | 2600000 | 400000 | 25 | 10000000 | none..... | ..... | none..... | ..... | Nov. 15, 83..... | 50 | 11 | 28000 |
| Hope Mining Co., Montana..... | ..... | ..... | 8000 | ..... | ..... | ..... | ..... | ..... | ..... | October 2, 83..... | 1 50 | ..... | 113 |
| *Idaho Gold M. Co., (Grass Valley) Cal..... | ..... | ..... | 3100 | 100 | 3100000 | ..... | ..... | ..... | ..... | Nov. 6, 83..... | 1 00 | 1 73 | 34025 |
| *Indian Queen Mining Co., Nevada..... | 75 | 225000 | 300000 | 2 | 600000 | Feb. 11, 80..... | 15 | 3 12000 | ..... | July 2, 83..... | 01 1/2 | 31 | 3740 |
| Iron Silver Mining Co., Leadville, Col..... | 2 30 | 1150000 | 500000 | 20 | 10000000 | ..... | ..... | ..... | ..... | October 5, 83..... | 20 | 12 | 11200 |
| Jocistita Mining Co., Mexico..... | ..... | ..... | 100000 | 100 | 10000000 | ..... | ..... | ..... | ..... | Nov. 30, 83..... | 50 | 10 | 9500 |
| Kentuck M. Co., Nevada..... | ..... | ..... | 30000 | 100 | 3000000 | Nov. 23, 81..... | ..... | 17 342005 | ..... | Nov. 9, 83..... | 10 | 40 | 12600 |
| La Plata Mining & Smelting Co., Col..... | ..... | ..... | 200000 | 10 | 2000000 | not assessable.. | ..... | ..... | ..... | October 2, 82..... | 30 | 35 | 6100 |
| Leadville Con. Mining Co., Col..... | 45 | 180000 | 400000 | 10 | 4000000 | " | ..... | ..... | ..... | October 15, 83..... | 05 | 17 | 3500 |
| Little Chief Mining Co., Col..... | 55 | 100000 | 200000 | ..... | ..... | ..... | ..... | ..... | ..... | October 2, 83..... | 10 | 8 | 7200 |
| Mt. Diablo M. Co., Nev..... | 4 00 | 200000 | 50000 | ..... | ..... | ..... | ..... | ..... | ..... | November 25, 83..... | 25 | 4 | 5000 |
| Mt. Pleasant M. Co., Cal..... | ..... | ..... | 150000 | 1 | 150000 | ..... | ..... | ..... | ..... | Sept. 27, 83..... | ..... | 3 | 6000 |
| Morning Star Con. M. Co., Leadville, Col..... | ..... | ..... | 100000 | 10 | 1000000 | ..... | ..... | ..... | ..... | June 28, 83..... | 25 | 17 | 6600 |
| Napa Con. Quicksilver, M. Co., Cal..... | 2 25 | 225000 | 100000 | 7 | 700000 | not assessable.. | ..... | ..... | ..... | November 1, 83..... | 20 | 30 | 3100 |
| Navajo Mining Co., Tuscarora, Nevada..... | 4 00 | 400000 | 100000 | 100 | 10000000 | March 7, 82..... | 10 | 255000 | ..... | May 14, 83..... | 25 | 9 | 2200 |
| *New York Hill Gold Mining Co., Cal..... | ..... | ..... | 50000 | 100 | 5000000 | March 26, 78..... | 20 | 6 55000 | ..... | August 10, 82..... | 10 | 21 | 2150 |
| Northern Belle Milling & Mining Co., Nev..... | 4 00 | 200000 | 50000 | 100 | 5000000 | ..... | ..... | ..... | ..... | April 16, 83..... | 50 | 71 | 25125 |
| *North Bloomfield Gold M. Co., Cal..... | ..... | ..... | 45000 | 100 | 4500000 | June 23, 81..... | ..... | 1590000 | ..... | November 5, 80..... | 1 00 | 16 | 2200 |
| Ontario Mining Co., Utah..... | 30 00 | 4500000 | 150000 | 100 | 15000000 | ..... | ..... | None..... | ..... | November 30, 83..... | 50 | 89 | 5075 |
| Oseola Con. Copper M Co., Calumet Dis Mich..... | 18 00 | 900000 | 50000 | 25 | 1250000 | ..... | ..... | ..... | ..... | October 5, 83..... | 55 | 16 | 9800 |
| Original Mining Co., Butte, Montana..... | ..... | ..... | 60000 | 25 | 1500000 | not assessable.. | ..... | ..... | ..... | November 5, 83..... | 05 | 27 | 8000 |
| Oxford Gold Mining Co., Nova Scotia..... | ..... | ..... | 100000 | ..... | ..... | ..... | ..... | ..... | ..... | August 25, 83..... | ..... | 6 | 3000 |
| Pleasant Valley Mining Co., Cal..... | ..... | ..... | 100000 | 100 | 10000000 | Sept. 8, 83..... | 15 | 2 30000 | ..... | Dec. 15, 82..... | 05 | 6 | 3000 |
| Plumas Eureka Gold Mining Co., Cal..... | 7 63 | 412000 | 40625 | ..... | 1406250 | ..... | ..... | ..... | ..... | October 12, 83..... | 50 | ..... | 5800 |
| Plymouth Con. M. Co., Cal..... | ..... | ..... | 100000 | ..... | ..... | ..... | ..... | ..... | ..... | October 3, 83..... | 50 | 5 | 2500 |
| Prussian Mining and Milling Co., Col..... | ..... | ..... | 150000 | 10 | 1500000 | ..... | ..... | ..... | ..... | Jan. 15, 83..... | 10 | 10 | 1300 |
| Quincy Copper Mining Co., Michigan..... | 50 00 | 2000000 | 40000 | 25 | 1000000 | ..... | 15 00 | 200000 | ..... | August 15, 83..... | 3 50 | 30 | 3600 |
| Richmond Con. Silver M. Co., Nevada..... | 30 00 | 1620000 | 54000 | 25 | 1350000 | ..... | ..... | ..... | ..... | August 10, 83..... | 1 25 | 36 | 3075 |
| Robinson Con. Mining Co., Leadville, Col..... | 39 | 78000 | 200000 | 50 | 10000000 | ..... | ..... | ..... | ..... | Nov. 15, 81..... | 25 | 11 | 7000 |
| San Francisco Copper M. Co., Cal..... | ..... | ..... | 50000 | ..... | ..... | ..... | ..... | ..... | ..... | Feb. 20, 83..... | 05 | 11 | 2500 |
| Sierra Buttes Gold M. Co., Cal..... | 6 25 | 765625 | 22500 | 10 | 225000 | paid up..... | ..... | ..... | ..... | October 12, 83..... | 25 | ..... | 2500 |
| Sierra Grande M. Co., New Mexico..... | 99 | 360000 | 400000 | ..... | ..... | ..... | ..... | ..... | ..... | October 2, 83..... | 25 | 7 | 7000 |
| Silver King Mining Co., Arizona..... | ..... | ..... | 100000 | 100 | 10000000 | ..... | ..... | ..... | ..... | June 16, 83..... | 25 | 42 | 1250 |
| Silver King Mining Co., Colorado..... | ..... | ..... | 500000 | 2 | 1000000 | not assessable.. | ..... | ..... | ..... | August 19, 81..... | 10 | 1 | 5000 |
| Standard Con. Mining Co., California..... | 6 50 | 650000 | 100000 | 100 | 10000000 | ..... | ..... | ..... | ..... | Nov. 12, 83..... | 25 | 76 | 4325 |
| *Silver Cord Silver M. Co., Colorado..... | ..... | ..... | 500000 | 10 | 5000000 | ..... | ..... | ..... | ..... | Nov. 1, 83..... | 10 | 3 | 2200 |
| St. Joseph Lead Co., Missouri..... | ..... | ..... | 100000 | 10 | 1000000 | ..... | ..... | ..... | ..... | Dec. 20, 82..... | 20 | 22 | 3000 |
| Smuggler Con. M. Co., Colorado..... | ..... | ..... | 60000 | ..... | ..... | ..... | ..... | ..... | ..... | August, 83..... | 20 | 10 | 6000 |
| Socorro M & M. Co., New Mexico..... | ..... | ..... | 2500 | 100 | 250000 | ..... | ..... | ..... | ..... | March 15, 82..... | 1 | 2 | ..... |
| Tip-Top S. M. Co., Black Canyon, Yavapai Co..... | ..... | ..... | 100000 | 100 | 10000000 | August 16, 83..... | 25 | 7 245000 | ..... | Nov. 27, 81..... | 20 | 5 | 1000 |
| Tombstone Mill & Mining Co., Arizona..... | 75 | 375000 | 500000 | 25 | 12500000 | ..... | ..... | ..... | ..... | April 15, 82..... | 10 | 25 | 12500 |
| Total Wreck M. Co., Arizona..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | May, 83..... | ..... | 1 | ..... |
| United Gregory M. Co., Gilpin Co., Col..... | ..... | ..... | 300000 | 1 | 300000 | ..... | ..... | ..... | ..... | April 1, 83..... | 04 | 3 | ..... |
| Vizina Con. M. Co., Tombstone Dist. Ariz..... | ..... | ..... | 200000 | 25 | 5000000 | ..... | ..... | ..... | ..... | April 1, 82..... | 10 | 7 | 1500 |

*Shares not in market. †Latest London quotations. ‡Price bid. §The Deadwood has previously paid \$275,000 in eleven dividends and the Terr \$75,000. Only paid on 450,000 shares. ¶This company as the western up to Dec. 10, 1881, paid \$1,475,000.

McIntyre & Lewis,
 BARISTERS, SOLICITORS & NOTARIES PUBLIC.
Conveyancing of Properties and Mineral Rights.
 OFFICES: **Union Chambers, Ottawa**
 (adjoining Canadian Mining Review Office.)
 ALEX. F. MCINTYRE. TRAVERS LEWIS.

JAS. H. REIFFENSTEIN,
 SURVEYOR
 FOR PROVINCES OF ONTARIO AND QUEBEC
 ALSO FOR DOMINION LANDS.

Residence, No. 128 Crichton St. New Edinburgh; Post Office, Ottawa, or New Edinburgh.

ERNEST GAUJOT,
 MINING AND MECHANICAL ENGINEER,
And Expert in Milling and Smelting.

Will examine and report on Developed Mines and Mineral Lands.
 Address:
 Belleville, Ont., or Buckingham, P.Q.



SEALED TENDERS addressed to the undersigned, and endorsed "Tenders for Telegraph Poles," will be received at the Department of Public Works, Ottawa, up to SATURDAY, the 15th day of DECEMBER, next, for the supply of about

1,225 Telegraph Poles more or less, of the following dimensions, viz., Cedar Poles, barked, 2 1/2 feet in length and not less than 6 inches diameter at the small end and 10 inches diameter five feet from the butt.

To be delivered on or before the 1st day of April, 1884, between the Great North Western Telegraph Company's station at Chatham and Point Ecoumme, New Brunswick, via Blackbrook Mills, the Lower Black River, and the main road, each pole to be laid alongside the roadway and fifty yards apart.

Each tender must be accompanied by an accepted bank cheque, made payable to the order of the Honourable the Minister of Public Works, equal to five per cent. of the amount of the tender, which will be forfeited if the party decline to enter into a contract when called upon to do so, or if he fail to complete the work contracted for. If the tender be not accepted the cheque will be returned.

The Department does not bind itself to accept the lowest or any tender.

By order,
 F. H. ENNIS, Secretary.
 Department of Public Works, }
 Ottawa, 28th Nov., 1883. }



Notice to Contractors.

SEALED TENDERS, addressed to the undersigned and endorsed "Tender for Post Office, etc., Berlin, Ont.," will be received at this office until WEDNESDAY, the 14th December next, inclusively, for erection and completion of

POST OFFICES, ETC.,
 AT
BERLIN, ONT.

Plans and specifications can be seen at the Department of Public Works, Ottawa, and the Post Office Berlin, on and after MONDAY, the 26th instant.

Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied, and signed with their actual signatures.

Each tender must be accompanied by an accepted bank cheque, made payable to the order of the Honourable the Minister of Public Works, equal to five per cent. of the amount of the tender, which will be forfeited if the party decline to enter into a contract when called on to do so, or if he fail to complete the work contracted for. If the tender be not accepted the cheque will be returned. The Department does not bind itself to accept the lowest or any tender.

By order,
 F. H. ENNIS, Secretary.
 Department of Public Works, }
 Ottawa, Nov. 16th 1883. }



Graving Dock.

British Columbia.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for Graving Dock, B.C.," will be received at this office until FRIDAY, the 8th day of February, 1884, inclusively, for the construction and completion of the partially finished

Graving Dock at Esquimalt Harbor, British Columbia.

According to plans and specification to be seen on and after Monday, the 24th December next, at the Department of Public Works, Ottawa, and on application to the Hon. J. W. Trutch, Victoria, B.C.

Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied and prices affixed to the whole of the items stated therein, and signed with their actual signatures.

Each tender must be accompanied by an accepted bank cheque for the sum of \$7,500, made payable to the order of the Honourable the Minister of Public Works which will be forfeited if the party decline to enter into contract when called upon to do so, or if he fail to complete the work contracted for. If the tender be not accepted the cheque will be returned.

This Department will not be bound to accept the lowest or any tender.

By order,
 F. H. ENNIS,
 Secretary.

Department of Public Works, }
 Ottawa, 12th Nov., 1883. }



ST. LAWRENCE CANAL.

NOTICE to CONTRACTORS.

The letting of the works at the upper entrance of the CORNWALL CANAL, and those at the upper entrance of the RAPIDE PLAT CANALS, advertised to take place on the 13th day of November next are unavoidably postponed to the following dates:

Tenders will be received until TUESDAY, the fourth day of December next.

Plans, specifications, etc., will be ready for examination at the places previously mentioned on and after Tuesday the twentieth day of November.

For the works at the head of the Galops Canal, tenders will be received until Tuesday, the eighteenth day of December. Plans and specifications, etc., can be seen at the places before mentioned on and after Tuesday, the fourth day of December.

By order,
 A. P. BRADLEY,
 Secretary.

Department of Railways and Canals, }
 Ottawa 20th Oct., 1883. 47-5. }

MACHINERY for SALE

Milling Machinery that has been in use at a gold mine is offered for sale. The entire machinery referred to is said to be in good order and will be sold at a bargain to anyone having use for it. Particulars can be obtained on application to the publishers of the CANADIAN MINING REVIEW.

HAMILTON POWDER CO.

MANUFACTURE

Mining, Blasting, Military and Sporting

GUNPOWDER,

Dynamite, Dualin and the new **Eclipse Mining Powder.**

DOMINION AGENTS FOR
Safety Fuse, Electric Blasting Apparatus, &c.

OFFICE:—103 St. Francois Xavier Street, Montreal.

Branch Offices and Magazines at all chief distributing points in Canada.

FOR SALE.

THE MINING RIGHTS ON
1,000 ACRES
 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 acres. Specimens on view, and all information given at

F. FOOKS,
Mineral Agency,
 307 and 309 Wellington St.
OTTAWA.

ALSO THE
Phosphate Lot No. 30

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.)

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 the office of the MINING REVIEW.

THE
UNION PHOSPHATE MINING
 AND
Land Company.
CAPITAL \$1,000,000.

100 000 SHARES, PAR VALUE \$10.00 EACH

DIRECTORS.

| | |
|-----------------|---------------------|
| J. R. Walsh, | C. C. Waite. |
| F. Platt, | F. L. Pitts. |
| C. S. Henry, | M. Munford. |
| J. A. Marsh, | C. J. Cuyler. |
| I. Remsen Lane, | I. P. Chambers. |
| J. W. Royer, | J. M. Eastman. |
| H. L. Sadler, | J. M. Stoddart, Jr. |
| John Fraser, | F. E. Smith. |
| | W. H. Williams. |

OFFICERS.

| | |
|---------------------|-----------------|
| W. H. WILLIAMS..... | President. |
| J. M. EASTMAN..... | Vice-President. |
| J. P. CHAMBERS..... | Treasurer. |
| F. E. SMITH..... | Secretary. |

OFFICES:

Orange, N.J., and 13 Park Place, New York.

PERKINS' FOUNDRY

OTTAWA.

FORGINGS AND CASTINGS
 OF EVERY DESCRIPTION, TRUE TO PATERN.

Wheels and Axles for Tram Cars, Derrick-fittings, Hoisting Gear, Shoes, Dies, Hammer-heads, Iron Pipe and Gearing of all kinds. Also Boilers and Steam-fittings.

ESTIMATES FURNISHED.

ADDRESS:

E. L. Perkins,
 314 SPARKS STREET,
 OTTAWA.

PHOSPHATE PROPERTY

For Sale in North Burgess.

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

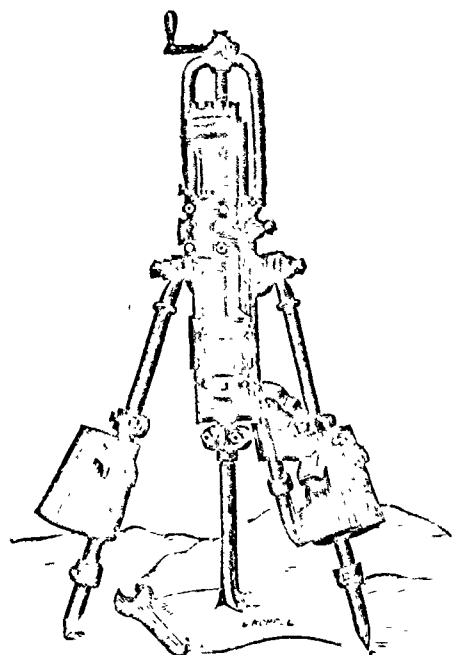
THE
MINING REVIEW,

CHICAGO, ILLS.

DUFF PORTER, Editor.

The acknowledged authority on MINING and the LEADING REPRESENTATIVE EXPONENT of the MINING INDUSTRY.
 SUBSCRIPTION \$3.00
 THE MINING REVIEW CO. CHICAGO, ILLS.

MILLER BROS. & MITCHELL



Manufacturers of
**MINING AND CONTRACTORS' PLANT,
 LATEST IMPROVED STEAM ROCK DRILLS,
 HOISTING ENGINES,
 AIR COMPRESSORS,
 ELECTRIC BLASTING APPARATUS,
 IMPROVED PATENT STEEL WIRE ROPE,
 &c., &c., &c.**
Miller Bros. & Mitchell,
 Works, 110 to 120 King St. Office, 30 William St.
 MONTREAL.

ROCK DRILLS, AIR COMPRESSORS

General Mining Machinery,
WIRE ROPE and CONTRACTORS' SUPPLIES
 FOR CATALOGUES, ESTIMATES, ETC., ADDRESS:
INGERSOLL ROCK DRILL CO.
 (LIMITED)
 44 FOUNDLING ST., MONTREAL.

PHOSPHATE CRYSTALS.

Farmers, Miners and Prospectors, having unbroken
 Phosphate Crystals for Sale, can find a cash
 purchaser by applying at the Office of
THE CANADIAN MINING REVIEW
 Union Chambers, 14 Metcalfe Street, Ottawa.
 Parties offering crystals for sale will please mention the
 colour, length and diameter—large ones preferred.

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 Sand-
 stone 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
BIRTLÉ 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 | 90 |
| S $\frac{1}{2}$ | 3 | 17 | 23 | 520 |
| 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
 the office of the MINING REVIEW.

**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 de-
 veloping. Price and particulars
 given at the office of the MINING
 REVIEW.

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 the office of the MINING REVIEW.

**TIMBER LIMIT
 ON LAKE WINNIPEG**

FOR SALE.
 50 Square Miles.

This limit will be very valuable.
 Apply at the office of the MINING
 REVIEW for price and particulars.

**FOR SALE,
 White Marble Quarry on Calumet
 Island.**

At this quarry there is an inex-
 haustible supply of most beautiful
 white marble. Price \$800. Sam-
 ples to be seen and information ob-
 tained at the office of the MINING
 REVIEW.

**PHOSPHATE PROPERTY
 FOR SALE**

IN THE TOWNSHIP OF WAKEFIELD.

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

The fee simple of Lots Nos.
 and 23, in the 4th range, (4
 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 the office of the MINING REVIEW.