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THE MINING REVIEW.

VOL. I.

ROSSLAND, B. C., MARCH 20, 1897.

No. 27.

Cable address, "Walters," Rossland. Use "Lieber's," "Moreing and Neal's," and Bedford-McNeill's Codes.

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Pure Gold Treasury, 5 cts.

Waneta & Trail Creek Treasury, 10 cts.

Correspondence solicited.

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TRAIL, B. C.

HAS FOR SALE TOWN LOTS IN TRAIL AND DEER PARK

Mining Claims for sale near Rossland, Trail and in the whole Columbia basin.

WILL EXAMINE AND REPORT ON MINES

MINING NOTES.

Frank Watson brought down some rich looking samples from the Arlington, showing native silver as well as galena.

A company is being formed to develop the Gladstone, which lies near the Commander.

The War Eagle company has struck a great body of ore in the tunnel run in from the Iron Mask ground. It is supposed to be the same ore body as that on the Center Star which has now been located on the War Eagle ground.

The tunnel on the Monte Cristo is in ore, and the grade is improving.

There is a very fine showing of ore on the Gopher.

It is reported that Messrs. Gooderham & Blackstock are in London on a deal for the property owned by the War Eagle Consolidated. It was said when they left Toronto they had gone out to sell the Gooderham Worts' distillery.

Martin King, who has just given up the management of the Columbia & Kootenay, has in a quiet way done as much for the development of the Trail Creek camp as any man who ever came into it.

Some very fine ore has been struck in the Commander lately.

Great activity is being looked for in the Boundary country this summer. Already men are going in in shoals, which is neither the best thing for themselves nor for the country, because the snow is too deep for any prospecting to be done for a long time to come.

The Juliet mine is about to put in machinery. The mine is looking first-rate.

A drift will be started immediately from the foot of the Monita shaft. The shaft is not at present in ore.

J. F. Wardner has founded a town in East Kootenay called Wardner.

A tunnel has been started on the Wolverine, belonging to the Southern Cross group.

The Le Roi has had to lay off a large part of its force as more ore was being taken out than the railway could handle in its present snow-blocked condition. About 100 men were laid off.

Orphan Boy stock is a dead dog on the market, and will be until the very peculiar arrangements of the company are adjusted.

Mr. Bellinger, of the Trail smelter, writes to the press to say that he is not, and never was, a director of the Orphan Boy company.

The last report from the Victory came in yesterday. Ten inches of high-grade ore on the hanging wall and a full face of mixed ore and quartz.

The Stanley mine is affording food for gossip. The vein matter is said to be bastard quartz—a very unsympathetic gold-bearing material.

J. M. Burke returned to Rossland last night. J. M. has now the backing of one of the strongest syndicates floated in eastern Canada, and the syndicate has the backing of J. M. Burke and some of the best undeveloped and partially developed property in the country.

P. A. O'Farrell and W. Piggott are among the early birds returned to Rossland.

W. Dunn has been wintering outside. He is back in Rossland and has acquired an interest in the East St. Louis, a good-looking prospect lying between the Lily May and Silver Bell.

About twenty men are camped at Barney O'Brien's ranch doing assessment work on surrounding claims.

Two remarkable specimens of ore are on exhibit in the Miner office window. One is taken from the west drift on the 500-foot level of the Le Roi. It assays \$155 in gold. The other is taken from the 300-foot

level of the Center Star and assays \$100 gold and 20 per cent copper. The remarkable thing about these specimens is not so much their high grade as the striking difference in texture and appearance they present. Both the pyrrhotite and copper pyrites are of entirely different color and grain. But both are fit for a jewelry window and throw in the shade a fine specimen of the Victory ore which lies in the window beside them.

W. A. Campbell has acquired the Lusanna and Morning No. 7, two claims on Lemon creek, which possess a good showing of galena which carries values in gold.

Ore and matte produced in southwest Kootenay and entered at the port of Nelson, last week, reached a total value of \$185,000. This brings the total from January 1 to March 13 to \$1,800,000, not including shipments over Nakusp & Slocan Railway from February 1, those being entered at Revelstoke.

The Rammer & Cariboo Company of Slocan will pay a dividend of \$20,000 next week.

The government will be asked to assist in building a road from the foot of Slocan lake to the Arlington basin.

The demand for developed properties far exceeds the supply in Trail Creek. From all sides come letters from agents prepared to pay any price for mines. So much the better for the men who have taken the chances and made the mines.

SALE OF COLUMBIA AND KOOTENAY GROUP.

The Columbia and Kootenay group has been purchased by the British Columbia Smelting and Refining Company, controlled by F. A. Heinze, for \$500,000 cash. This is one of the most remarkable mining deals ever made. In the first place, until the mine was turned over nobody knew anything about the sale. In the second place, the mine, with less than one year's active development, has appreciated in value about 1,000 per cent. In the third place, it has not been sold at this enormous advance to eastern tenderfeet, or on an expert's report, to the credulous public, but to one of the hardest-headed combinations of mining men in Western America.

The mine has been a steady but small producer since the beginning of the year, shipping from fifty to sixty tons a week to the Trail smelter. It is needless to say that it is looking well. It is in fact looking better now than when the deal was to all intents and purposes closed, over a week ago. There was one element apparently existent in the Trail Creek camp which was exciting some distrust. The mining men who made the camp seemed to show a tendency to realize and invest elsewhere. The evidences of this supposed fact were very slim. There was the sale of the War Eagle, the option on the Jumbo, the rumored sale of the Le Roi, coupled with the fact that the owners of these mines were not taking hold of any more property in the Trail Creek camp. The public overlooked the fact that those mines were not being sacrificed, but sold at figures which represented an enormous profit; and this other fact, that the men who were selling are mining pioneers, not mining investors; that their business is opening up new districts, not investing in already proved properties. There is no mining camp where such men do not give place to the investor, and Trail Creek was merely exemplifying a natural law. There are people who say that this is the way to make money in mining. It has not proved so in the past. Every great fortune made in mining has been made by men who did not sell but allowed themselves to be transferred by a natural process from mining man into mining investor. That is simply a matter of fact, amply demonstrated by experience. But, by way of restoring the nerve of the timid, this sale of a mine for an immense figure from an eastern company to a western company is a remarkably satisfying feature.

All trains are blocked on local lines, and Rossland's mail service, which in the last few months has been greatly improved, is in a demoralized condition.

HONEST REPORTING.

It is impossible to doubt that the mining districts of the west have been rather injured than helped by the injudicious and indiscriminate booming in the local press. This applies especially to the lesser camps, and in them to individual mines of minor importance. The great camps and the big mines not only do not need, but do not seek, this sort of advertising; in fact, it is often difficult to get reliable news about them.

The case is altogether different from that of the systematically organized "whooping up" of some boom camps by means of paid advertisements and paid editorial space, as in the notorious example of the Southern "boom towns" of five and six years ago, when the central object of the scheme was rather to sell town lots than to invite capital for serious development, for the heavy capitalists are not so likely to be influenced by this sort of shouting as are people of small means and those at a distance unable to look into things for themselves, or obtain expert advice, before investing. On the contrary, in our western camps the efforts of the local newspapers are almost invariably inspired by the most commendable motives, and the habit of overstating everything has become so common that nobody considers it dishonest, since it is generally understood that a liberal discount is to be taken off all around. The trouble is that no definite standard has been as yet set up by which to measure the amount of allowance to be made. If there were some such rule one could get a fair approximation to fact by dividing every statement by, say, three, four, five, or whatever the co-efficient might be, and scaling down to one-third, one-fourth, etc., discarding the surplus as conventional embellishment. Nobody is deceived, yet the amount of information imparted is vaguely small.

This curious survival of the early misty days when "everything went" about mining is like the parallel one, on a larger scale, in which we occasionally find people who believe certain things, because they saw them "in print." This latter order of beings is rapidly becoming extinct. So also are those who are likely to be taken in by distorted accounts of mines or mining districts, and those who are thus deceived are hardly the ones whose opinion or backing would be of any substantial assistance to the camps or the mines boomed. On the contrary, a repulsive effect is the usual outcome. The poor tenderfoot and the trusting British "small investor" have been slowly passing through a bitter educational course, and most of them are already pretty far advanced, while a few have even graduated.

In the long run it pays to tell the truth. Misstatements at the outset, or in any particular at any time, are bound to be exposed, and then a prejudice is established, even against the most meritorious properties, which it is very hard to overcome. A conservative, honest account of the actual facts, so far as it is possible to ascertain them, is of real value in placing matters before the outside world; and the only people who are likely to invest are quite able to "size up" unreliable printed descriptions.—Engineering and Mining Journal.

A VISIT TO THE VICTORY.

This is the first year since the beginning of time that any part of the Dewdney trail, west of Rossland, has been kept open through the winter. And but for the unprecedented snow fall of the last two weeks there would have been no difficulty at all in maintaining communication right through the season over the first divide. As it is, although the trip to the Victory mine is disagreeable on account of the heavy snow on the summit, it is not yet impossible. Fortunately, ample supplies were put in a month ago to keep the mine running for some time, and spring must come some day. This mine is well worth going to see, even through the snow. The amount of ore developed has to be seen to be realised. From the entrance of the main development tunnel, now in 165 feet, to the face, nothing but ore and quartz has been taken out. Not one single hole has been drilled in country rock. Much of this ore is low grade concentrating ore, but some of it is of shipping grade as it is broken down from the mine, and all of it mixed together and concentrated will result in profitable working. The face of the tunnel looks better than it ever did before, and there is a high grade seam of ore on the hanging wall which cannot be beaten by anything in the Trail Creek district. There are about five feet of snow on the ground. At this time last year it was bare of snow altogether.

The R. J. BEALEY CO.,

LIMITED LIABILITY.

Mines, Stocks, Real Estate and Insurance

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Offices at Rossland, Trail and Nelson.

G. A. POUNDER, Pres. W. J. GREEN, Vice-Pres.
J. A. SCAMAN, Secretary.

THE IBEX MINING COMPANY.

Limited Liability.

CAPITAL \$1,000,000, in Shares of \$1.00 Each, Fully Paid and Non-Assessable.

TREASURY - - - 300,000 Shares.

This Company has been formed to operate the Ixex Mineral Claim, adjoining the famous Silver Bell mine.

There are three distinct ledges on the property, including the main ledge of the Silver Bell.

Development work is now in active progress. Five men are employed.

First block of Treasury Stock on the Market at 6 cents.

Tunnel now in 80 feet.

THE IBEX MINING COMPANY, LIMITED.

Shaw Block - - - ROSSLAND, B. C.

FOR MAYOR OF ROSSLAND

VOTE FOR

C. O. LALONDE

APPLICATION FOR LIQUOR LICENSE.

NOTICE is hereby given that at the expiration of thirty days from date hereof the undersigned intends applying to the stipendiary magistrate for West Kootenay District for a license to sell liquor by retail, on the premises known as Barney's ranch, at Barney, situated at the intersection of the Dewdney trail and the Northport wagon road, five miles from the town of Rossland.
Dated this 20th day of March, 1897. B. O'BRIEN.

THE REVIEW

IS PUBLISHED EVERY SATURDAY.

Advertising copy must reach the Office before noon of Wednesday to ensure insertion.

ROBBINS & LONG, Chas. P. Robbins, Leo. H. Long.
ASSAYERS AND CHEMISTS.

PRICES FOR ASSAYING:

Copper only	\$2 00	Lead, wet assay	\$2 50	Antimony	\$5
Gold and Copper	2 50	Silica	2 50	Arsenic	5 00
Gold only	1 50	Iron	2 50	Nickel	10 00
Silver only	1 00	Zinc	3 00	Cobalt	10 00
Gold and Silver	2 00	Sulphur	3 00	Coal Analysis	10 00
Lead, fire assay	1 00	Aluminum	3 00		

Ten or more samples from same party in any one month, 30 per cent off list prices. Five or more brought in at one time same discount. Special attention given to samples by mail.

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ROSSLAND, B. C.

MINING PRINTING.

We are prepared to print STOCK CERTIFICATES, PROSPECTUSES, PAY ROLLS, VOUCHERS, ORDER BLANKS, and other Mining forms.

Our work speaks for itself.

REVIEW PRINTING HOUSE.

Miner Block, East of Postoffice.

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Nelson & Fort Sheppard.

Red Mountain Rlys.

The only all rail route without change of cars between Nelson and Rossland and Spokane and Rossland.

DAILY EXCEPT SUNDAY.

Leave,		Arrive,
10:30 a. m.	ROSSLAND	7:25 p. m.
9:00 a. m.	NELSON	5:20 p. m.
7:00 a. m.	SPOKANE	7:00 p. m.

Passengers for Kettle River and Boundary Creek connect at Marcus with stage daily.

COLUMBIA & WESTERN RAILWAY

Time Table in Effect February 4, 1897.

No. 2. PASSENGER, Daily except Sunday—	
Leaves Rossland	7:00 a. m.
Arrives at Trail	8:00 a. m.
No. 4. PASSENGER, Daily, except Sunday—	
Leaves Rossland	4:00 p. m.
Arrives at Trail	5:00 p. m.
No. 3. PASSENGER, Daily except Sunday—	
Leaves Trail	8:45 a. m.
Arrives at Rossland	10:00 a. m.
No. 1. PASSENGER, Daily—	
Leaves Trail	5:45 p. m.
Arrive at Rossland	7:00 p. m.

Connection made at Trail with ALL STREAMERS, both up and down the Columbia river.

For freight rates and further particulars, write to

F. P. GUTELIUS, Gen'l Sup't.
Rossland, B. C.

The Pure Gold Mining Co., Limited.

Capital Stock:
1,000,000.

1,000,000 Shares, Par Value \$1.00
Fully Paid and Non-Assessable.

Treasury Stock:
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Head Office, Rossland, B. C.

Mines, Christina Lake, Trail Creek District.

OFFICERS AND TRUSTEES.

W. C. ARCHER,
President.

J. M. O'TOOLE,
Vice-President.

D. D. BIRKS,
Treasurer.

ALBERT P. HUNTER,
Secretary and Manager.

A. H. MCKAY,
Trustee.

The property of the company consists of three adjoining full claims, known as "Pure Gold Group," and named the "Pure Gold," "Trilby" and "Escort" mineral claims, all prior locations, with perfect titles, vested in the company. There is a well-defined ledge 30 feet wide, traceable through the claims for a distance of 2,000 feet. Six men are now at work on the Trilby and good assays have been obtained. Twelve feet from the mouth of the tunnel an assay of over \$20 was obtained. Work will be carried on without cessation, and good results are confidently anticipated.

Fifty Thousand Shares of Development Stock are now on the market at 5 cents.

Prospectus and full information will be furnished on application to

ALBERT P. HUNTER, Sec. and Man., Rossland, B. C.

CAMPAIGN NOTES.

In what vital sense is R. J. Scott a citizen of Rossland? He is a man of independent fortune, built up in Galt, Ontario. His family resides there. Suppose the mines in Rossland played out sooner than we expect. It would simply be an agreeable reminiscence to Mr. Scott to relate over his pipe and beer how he had gone to Canada's first great mining camp and how the inhabitants had made him mayor of the town on the same principle as the shipwrecked sailor marries the chief's daughter and rules over the kindly natives of some savage island.

In sympathies, training and circumstances, Mr. R. J. Scott is not a citizen of Rossland. Municipal development is a growth. Part of that growth Mr. Scott is not, and never can be. The growth of Rossland as a community is something to be proud of. It began with the well-ordered pioneer days, when lawlessness was prevented from showing itself. It was continued during those anxious days when a labor strike seemed imminent, but was happily averted by the strong common-sense and moderation of the workmen when they organized a labor union. It now finds its just and proper expression in the incorporation of the city. But what connection has Mr. Scott with either the businessmen, who gave Rossland a reputation never before held by a mining camp, or with those mines to whom this community owes so much?

He has none. He is simply an investor in real estate—living on rent. He enjoys a good return on his money, on which not only himself but the town is to be congratulated. But to make him mayor is an entirely different thing.

It is entirely untrue that Mr. Scott came to Rossland in answer to advertisement as follows: "Wanted—An elderly gentleman of independent means to become mayor of a western town." It never occurred to anyone except Mr. Scott himself that Rossland's first mayor would be chosen on such principles.

Rossland is not a timid spinster looking around for a man's coat and hat to hang in her hall to frighten tramps. And the offer of Scott's castoff Galt robes for the purpose is respectfully declined.

E. Hewitt did right when he declined to run as alderman. His letter of refusal showed him up in a good light. If he sticks to those sentiments he will not have to complain that everybody is down upon him. A mining camp is very quick to see when a man gets off on the wrong foot and let him know it. On the other hand, it is just as quick to forget a bad start. It is to be hoped that Rossland has the prosperity in keeping for Mr. Hewitt he has come to seek.

For a long time Mr. R. J. Scott was recognized as a side partner of Messrs. Hewitt and A. J. Smith. Ed. Hewitt and A. J. Smith, along different lines but with equal precision and success, made themselves de-

W. A. MCKENZIE.

W. L. GERMAINE.

W. A. CRANE, M. E.

McKENZIE & COMPANY, MINING AND REAL ESTATE BROKERS EXPERT ACCOUNTANTS NOTARIES PUBLIC

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Assessments and development work supervised.
Many mining properties and choice Rossland lots for sale.

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ROSSLAND, B. C.

perately unpopular. Mr. Scott has lately gone back on Messrs. Hewitt and Smith. If there is a business arrangement between them, an option on repudiation, as it were, terminable on and after the 3rd of April, it is a very discreditable arrangement, indeed. If there is not—well to go back on a side partner because he is unpopular and in order to secure such an honor as the mayoralty of Rossland—it something unusual in the west.

Some people have made a mistake about the slate of aldermen put forward for a nomination. The idea of running nine men for the board of aldermen for every one of whom every supporter of Lalonde for mayor would be expected to vote, was never contemplated for a moment.

Many of Lalonde's supporters were determined to vote for other men if other men ran. Many of Scott's supporters were ready to vote for some of those named. Elections are full of baseless rumors—partizan nominations. Your election partizan is ready to use any stick to beat a dog with at all times. A kindly Providence, in its inscrutable dealings, occasionally sees to it that the best man is sure to be elected.

H. S. Wallace will be one of the candidates for aldermanic honors. He will make a good member of the council, and will be elected.

The registration of voters has been shamefully delayed and retarded.

CONCERNING FORMATIONS.

The following is from the summary report of the Geological Survey Department:

"At Rossland, the central member of the group is a fine to coarse-grained gabbro, apparently passing in a couple of places into a uralitic granite. The gab-

bro occupy an irregular-shaped area with a length of about four miles and an average width of one mile.

They extend from Deer Park mountain eastward to the western base of Lookout mountain. The line of junction between the gabbros and the bordering porphyrites, commencing at the northwest corner of the area, runs through the Cliff, War Eagle and Le Roi claims; then turning to the west, circles round a spur from the main area which covers part of Deer Park mountain and continues eastward in a sinuous line, passing about a quarter of a mile north of the Crown Point mine to the foot of the west slope of Lookout mountain. The northern edge of the area runs from the Cliff mine eastward to Monte Cristo mountain, then bends more to the south, and skirting the southern base of the Kootanay-Columbia mountain, continues in a southeasterly direction towards Lookout mountain. The eastern edge of the area has not been precisely defined owing to the absence of sufficient exposures. The gabbros are fringed with a varying width of augite and uralite-porphyrates, and fine-grained green diabases. The passage from the porphyrites to the gabbros is nowhere sharply defined and the two rocks have apparently originated from the same magma, but have cooled under different conditions. The gabbros and bordering porphyrites are important from an economic standpoint, as most of the ore-bodies at present being worked are situated either on or close to their line of junction."

The only valuable part of this delimitation of the Trail Creek belt properly so-called is to be found in a previous paragraph.

"The distribution of the various numbers of the eruptive series is extremely irregular, and owing to the large proportion of the surface concealed by drift and forests, and the limited time at our disposal, it was found impossible in many cases to trace out junctions, except in an approximate manner.

THE MINING REVIEW

A weekly newspaper devoted to the mining interests of Trail Creek District.

Published every Saturday at the office of The Mining Review, Columbia Avenue, Rossland, B. C.

YEARLY SUBSCRIPTION RATES.

PAYABLE IN ADVANCE:

Canada and the United States—One year \$2 00
Six months \$1 25
Great Britain and Foreign—One year \$2 50
Six months \$1 50

ADVERTISING RATES.

Display, one insertion \$1.00 per inch
Contracts, 1 inch \$3 per mo.; 2 in. or more, \$2.50 an in. per mo.
Quarter page \$7.50 per insertion, \$25 per month
Half page \$12.50 per insertion, \$40 per month
Full page \$20.00 per insertion, \$70 per month
Business Cards, first page \$5 per month
There will be no deviation from these rates.

All business communications should be addressed to A. R. MACDONALD & Co., Proprietors, The Mining Review, Rossland, B. C.

VOL. 1. MARCH 20, 1897. No. 27.

EDITORIAL NOTES.

A STOCK EXCHANGE has been a pressing necessity in Rossland for a long time past. Nothing was done towards establishing one until less than two weeks ago. What has been done was the direct outcome of an article in THE MINING REVIEW, which brought home to Rossland brokers that they were neglecting their own interests.

THE idea that Spokane should settle the price of Rossland stocks is absurd. Yet Spokane is today the buying and selling center. This will be remedied if the new Stock Exchange is loyally supported. A Stock Exchange will soon hammer stocks down to their market value. Whenever a stock is dealt in on 'change it can never be dealt in except there.

TORONTO brokers doing a legitimate business in Rossland stocks should subscribe for a seat on the Rossland Exchange and appoint good agents here to do their dealing.

THE Orphan Boy has made a sweet and pleasant record for itself. The Orphan Boy company makes itself participator in Mr. Whitney's actions if it does not settle for the fraudulent certificates issued and debts contracted by the late secretary. J. W. Haskins is a perfectly straight man and the Orphan Boy mine is by all accounts a good property.

THE Nelson Miner is a newspaper which has passed through many vicissitudes. It was the first paper in Southwest Kootenay. It was started by John Houston, who sold it to D. B. Bogle, who sold it to C. P. Woolley, who traded it to W. A. Jowett, who traded it to somebody else, or part of it. It was started by a man who had the courage of his convictions, and whose convictions were nearly always right. It was then run by a man who had the courage of his convictions, but whose knowledge of the country was inadequate. Its next proprietor had the courage of his convictions, but his convictions were always wrong and his ignorance of the country colossal. Again it owned a master who had neither courage nor convictions. Now, the Nelson Miner expresses itself so foolishly upon the proposed company legislation that it is impossible to classify its opinions. It has had a terribly sad history.

PUBLIC opinion sets strongly against prize fights. There are other things more debasing. Fitzsimmons kept his mouth judiciously closed before the fight. It is to be hoped he will do so afterwards, also. He took punishment like a man and never squealed. He is one of those bulldogs who do not know when they are beaten. Just his qualities have made our race, not his opponent's frothy genius. He is a brute, if you like. At any rate, he is a quiet, silent brute, who fought out of his class, who gave up every point of the game, whose one ambition was to get into the ring, and stay there. For such brutes it is possible to feel a certain amount of modified respect.

CANADA is marked out as the future great gold producer of the world. If its mineral resources as a whole be taken into account, it will, in gold, silver, copper, lead and iron, lead the nations. And that

within a very short time. Production of what all the world needs is leaping forward. Prosperity will follow and a rapid realization of our national dreams.

THE Canadian Pacific Railway will build the Crow's Nest Pass road itself. The government will thus be relieved from the necessity of solving a knotty question. The agitation has put the matter in its proper light, anyway. It is a privilege, not a service, to be allowed to build the Crow's Nest Pass road. Not a bonus, but a payment is required. That payment need not be in money, but in protection to trade interests. Meantime, the Canadian Pacific Railway will grow more absolute, and still more absolute, until the transportation business of the whole Dominion is nationalised, which happy consummation the unification of monopoly in one company, will materially assist.

It is organized mankind's most common failing to strain at a gnat and swallow a camel. The legislature of British Columbia has for a long time been deeding over to the lieutenant-governor-in-council all its legislative functions. But it raises a dignified protest when a technical formality in connection with the signing of a bill is neglected.

F. A. HEINZE has been smelting the Columbia and Kootenay ore. He knows exactly all that is to be known about the mine, and he pays \$500,000 for it. This mine has appreciated nearly one thousand per cent. in a year. Such is mining.

IN the summer of 1895 people opened their eyes in astonishment when the Monte Cristo, Iron Horse and Enterprise were bonded for \$5,000. The best cash sale—and it was looked on as a marvel—was of the Mountain View for \$7,000. The lucky vendors were looked on as men who had made a great cleanup. The summer and fall of 1896 had some remarkable surprises in store. Prices went away up. Now, big deals are as common as blackberries. Is it not a curious and remarkable fact that Trail Creek properties have grown steadily in favor with mining men since the beginning, and on a steady basis of merit—merit determined by most rigorous examination—command far higher prices than mines in any other part of the country? And this is in spite of all the croaking imbeciles from Halifax to Victoria.

NEVER was seen such a March for snow. Railroads and mine trails are blocked in all directions. Mails are irregular and business suffers. But no one minds it very much in Rossland. Rossland has now the certainty of a most wonderful summer of activity and output. We can afford to wait. But a friendly warning is in order for those who intend to come into this country to prospect and who cannot afford to wait. We may have an early, warm spring, and we may not. There is so much snow now that the hills are not likely to be clear until later than usual this year.

AMERICAN railways are busy booming this country with the sole object of inducing travel over their respective lines. It matters not to them whether their passengers are people who will benefit Kootenay or not. All they look for is the fare.

BULLION FROM THE FOLEY MINE.

Three thousand dollars' worth of bullion from the Foley mines has been received in this city by the secretary of the Foley Mines Company. This bullion is the result of the first week's run of 240 tons of ore at the mines. The bullion will be retorted and run into brick form for dispatch to New York. Mr. John F. Caldwell, the Canadian "Gold King," and proprietor of the famous Sultana, examined the result of the run and expressed the opinion that it served to establish the value of the Foley mines.

But this bullion has even a wider significance, for it is the first produced by the Seine River country, and is an indication of what that wealthy district will do in the future.

MARKET REPORT.

The feature of the week's trading, otherwise very dull, was the flurry in Deer Park, which was sold down below 18, recovered to 23 and again dropped to 19½ and 19¼. Transactions in this stock were considerable. Commander has gained six points. Jumbo is quoted two points higher, Palo Alto half a point higher and St. Elmo has gone up a cent. White Bear is now 19 and Young British America has improved

half a cent. Stocks which sell below last week's figures are Josie, Georgia and Monita.

COMPANIES.	CAPITALIZATION.	PAR VALUE	MARKET PRICE.
Alberta.....	\$1,000,000	\$ 1 00	t 15
Alamo.....	500,000	1 00	*
Butte Gold Copper.....	1,000,000	1 00	5
Beaver.....	750,000	1 00	10
Big Chief.....	1,000,000	1 00	*
Brit.-Canadian Goldfields.....	2,500,000	1 00	40
B. C. Gold King.....	1,000,000	1 00	10
Bluebird.....	600,000	1 00	10
Bruce.....	1,000,000	1 00	10
Big Three.....	3,500,000	1 00	15
Caledonia Con.....	500,000	1 00	*
California.....	2,500,000	1 00	t 15
Cambridge.....	1,000,000	1 00	t 08
C & C.....	500,000	1 00	*
Centre Star.....	500,000	1 00	*
Celtic Queen.....	750,000	1 00	04½
Commander.....	500,000	1 00	21
Crown Point.....	1,000,000	1 00	50
Colonna.....	1,000,000	1 00	26
Cariboo.....	800,000	1 00	48
Cumberland.....	500,000	1 00	*
Deer Park.....	1,000,000	1 00	19½
Delacola.....	1,000,000	1 00	04½
Eastern Star.....	500,000	1 00	20
Eric.....	1,000,000	1 00	4
Elise.....	1,000,000	1 00	5
Enterprise.....	1,000,000	1 00	20
Eureka.....	500,000	1 00	t 05
Evening Star.....	1,000,000	1 00	13
Georgia.....	1,000,000	1 00	16
Gerirude.....	500,000	1 00	8½
Giant.....	500,000	1 00	15
Good Hope.....	500,000	1 00	8
Golden Drip.....	500,000	1 00	15
Golden Queen.....	1,000,000	1 00	*
Great Western.....	1,000,000	1 00	16
Grey Eagle.....	750,000	1 00	*
High Ore.....	500,000	1 00	5
Homestake.....	1,000,000	1 00	9
Hall Mines.....	£300,000	£1	7 00
Hilltop.....	1,000,000	1 00	t 10
Hattie Brown.....	1,000,000	1 00	10
Helen.....	600,000	1 00	3
Imperial.....	1,000,000	1 00	5½
I X L.....	1,000,000	1 00	*
Idaho.....	500,000	1 00	*
Iron Colt.....	1,000,000	1 00	t 20
Iron Horse.....	1,000,000	1 00	20
Iron Mask.....	500,000	1 00	43
Ivanhoe.....	1,000,000	1 00	t 10
Josie.....	700,000	1 00	45
Jumbo.....	500,000	1 00	57
Juliet.....	1,000,000	1 00	t 15
Kohinoor.....	1,000,000	1 00	t 10
Kootenay-Columbia.....	40,000	100 00	*
Kootenay London.....	1,000,000	1 00	12½
Le Roi.....	2,500,000	5 00	7 50
Lily May.....	1,000,000	1 00	20
Mayflower.....	1,000,000	1 00	13½
Monte Cristo.....	1,000,000	1 00	14½
Montezuma.....	1,000,000	1 00	t 4½
Mugwump.....	1,000,000	1 00	*
Monita.....	750,000	1 00	21½
Minnesota.....	1,000,000	1 00	*
Morning Star.....	1,000,000	1 00	7½
Northern Belle.....	1,000,000	1 00	t 15
Noble Five Con.....	1,200,000	1 00	60
Nest Egg Firefly.....	1,000,000	1 00	*
Novelty.....	1,000,000	1 00	8½
Old Ironsides.....	1,000,000	1 00	15
O. K.....	1,000,000	1 00	30
Palo Alto.....	1,000,000	1 00	6½
Pure Gold.....	1,000,000	1 00	5
Phoenix.....	500,000	1 00	11½
Poorman.....	500,000	1 00	5
Red Mountain View.....	1,000,000	1 00	12
Rossland, Red Mt.....	1,000,000	1 00	21
Rambler Con.....	1,000,000	1 00	55
R. E. Lee.....	2,000,000	1 00	15
Rochester.....	500,000	1 00	*
Rossland Star.....	1,000,000	1 00	15
St. Elmo.....	1,000,000	1 00	10
Silver Bell.....	1,000,000	1 00	*
Silverine.....	500,000	1 00	7
Southern Cross & W Con.....	500,000	1 00	20
St. Paul.....	1,000,000	1 00	t 15
Slocan Star.....	500,000	50	2 55
Sunshine.....	500,000	10 00	*
Trail Mining Co.....	250,000	100 00	*
Union.....	600,000	1 00	*
Victory-Triumph.....	1,000,000	1 00	t 15
Virginia.....	500,000	1 00	13
War Eagle Con.....	500,000	1 00	*
West Le Roi.....	500,000	1 00	*
Waneta and Trail Creek.....	1,000,000	1 00	10
White Bear.....	500,000	1 00	10
Young British America.....	1,000,000	1 00	6½
Wonderful.....	1,000,000	1 00	10
Zilor.....	1,000,000	1 00	15

Dividend paying properties appear in italics. An asterisk denotes that there is no stock on the market. t denotes treasury stock.

Results Talk.

The management of the Canadian Gold Fields Syndicate, Limited, now have over 150 feet of underground development to their credit in the rich Sunset No. 2. From the beginning there has been no "let up" in the exploration and development of this fine property. The work is to be pushed more vigorously, if possible, until the Sunset is a regular producer of pay ore in quantity. With pay or in quantity comes increased share values and dividends. As an investment, therefore, the fully-paid, absolutely non-assessable shares of The Canadian Gold Fields Syndicate, Limited, at 10 cents per share, appeal most forcibly to every intelligent investor.

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CHUNKS OF GOLD FROM MANITOU.

Mining circles in Winnipeg are said to be excited over the arrival in that city of William Caldwell with samples of exceedingly rich ore from mining location H. P. 301 in the Manitou district, now under development by Messrs. Howard, Kirby and Black of the Prairie City.

The property is known in the Manitou district as the Caldwell location, and was purchased by the gentlemen named in September last for \$15,000. Work was at once commenced under the superintendence of Caldwell, who is known all through the Rainy river district as one of the original discoverers of the Sultana mine, and who has been at different times superintendent of the Sultana, Regina and Empress mines.

At a depth of 45 feet the ore in the main shaft began to increase in value, and at 50 feet a body of ore was struck which for richness has probably never been equaled in any mining district on the continent. No description of it can give anyone an idea of how rich in free gold the ore really is. About fifty pounds of the ore was sacked and taken to Winnipeg for exhibition by Mr. Caldwell. Small pocket samples are numerous, showing free gold, but when Caldwell dumped a sack of ore with pieces as large as a man's head on the floor of the Leland hotel, every one of which seemed to be a mass of free gold, the whole city went wild with excitement. It is estimated that the ore will yield \$50,000 to the ton. Arrangements have been completed for the erection of a ten-stamp mill and an air compressor and hoisting outfit, the machinery to be taken in over the ice.

MACHINERY ON THE NEST EGG.

The Nest Egg Company has its machinery installed and in full blast. It consists of a 60-horse power boiler and engine, hoisting gear and a four-drill Rand compressor. Work so far has been confined to straightening out the working shaft now down 55 feet. From the foot of this shaft a drift was run 35 feet along the hanging wall of the vein. This drift shows from 20 inches to 2 feet of shipping ore all the way in. The hanging wall is well defined and shows every evidence of being a true wall. The programme of

development on the property includes the continuance of this drift along the vein, and also further sinking on the Sunset vein and upon the Firefly vein. The vein is in good shape now and looks well.

THE MONTE CRISTO MINE.

Most people in this country have heard of the Monte Cristo mine, which is situated in the Cascade mountains, near Everett. It was an immense blow-out of low grade galena, to make which profitable a smelter was built. In spite, however, of the greatest economy, the ore was too low grade to pay, and the mine was for a long time in a moribund condition. It is now stated that the lead has played out and has given place to iron, gold and copper, and that vast bodies of ore which will pay to work have been opened up.

On the railroad to Everett is situated the Silverton camp, in which some remarkable prospects have been discovered. Ross Thompson and J. M. Burke of Rossland have some interests in that section.

Subscribers to THE MINING REVIEW who do not receive the paper regularly will confer a favor on the publishers by immediately notifying this office.

The Montezuma mine, in the Slocan, is now a shipper.

Fifty-seven new mining companies were gazetted a Victoria last week.

The Juggler group, on Carpenter mountain, near Cody, has been bonded for a Chicago syndicate by J. K. Clark.

NOTICE OF MEETING.

THE first annual general meeting of Victory-Triumph Gold Mining Company, Limited Liability, will be held at the office of the Company, 7 Hart block, Columbia avenue, Rossland, on Thursday, March 25, 1897.

A. R. MACDONALD,
Sec.-Treas. Victory-Triumph
Gold Mining Company, Ltd.

Dated at Rossland, B. C., this 3d day of March, 1897.

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THE MECHANICS OF MINING.

For the following paper, read by D. W. Robb, M. C. S. C. E., A. S. M. E., before the Canadian Mining Association, we are indebted to the Canadian Engineer:

The general public seem to regard mining much in the same light as a search for Captain Kidd's treasure, mysterious, difficult and uncertain, but having discovered the mine, the fortune has only to be picked up. This belief is, perhaps, unfortunate, since it leads to the loss of money and faith, and tends to produce distrust of all mining ventures. Yet this gambling spirit, which seems inherent in humanity—the desire to acquire wealth with little labor, is, perhaps, not an unmixed evil, because, if all enterprise was limited to absolutely safe investment, very few mines would be discovered. The mining engineer knows only too well that, notwithstanding the comparatively strong light that may be thrown upon, and even into, the bowels of the earth by geological science and prospecting experience, aided by the diamond drill, nature's secrets are so various and intricate that there is still much chance work. The present paper will not deal with the problem of finding a mine, but with the successful operation of it after it has been found.

While a few mining properties have been, and will be, developed which pay handsomely, in spite of bad management and crude mechanical appliances, by far the greater number of mines of all kinds depend for success or failure upon the method of operation, and even in those which will stand a certain amount of waste, there is no reason why they should not be made to pay better by good engineering. While the mining engineer should be qualified to lay out and conduct purely mining operations, such as location and arrangement of pits, shafts, drainage, ventilation, etc., he is not usually an expert mechanic. He may understand the general principles of steam engines, pumps, air compressors and electric machines, but his calling does not require him to study the details of each of the numerous forms of these machines, and he has not the constant opportunity to become familiar with the peculiar advantages and disadvantages of each, so that he can readily choose the details of his plant, with a clear perception of how they may be combined, to give the best results, with the highest economy in fuel, labor and repairs.

The mechanical part of mining consists in providing the best and cheapest methods of drilling and removing rock or ore, transporting, screening, crushing, milling or otherwise preparing the mineral for further use; pumping, ventilating and other operations, which may be accomplished by the use of machinery. First of all comes the power necessary to drive this machinery; this must, in the present state of the mechanic's art, be obtained either by means of steam or water power. Whether steam or water will be used must be determined by circumstances; where water power is not available, steam must be used, but in other cases there may be a choice. Where both water power and steam are available, care should be exercised in making the choice. To the superficial observer water power may

be attractive, because the water is free of cost, whereas fuel costs money, but it should be kept in view that the cost of building and maintaining dams and other incidental expenditures is frequently so large that the interest on capital and cost of maintenance is equal to, or even greater in some cases, than the cost of fuel, and if the stream of water is insufficient or irregular, steam may have to be used to supplement it, or the interruption of work would entail heavy loss. Having decided upon the kind of power to be employed, the next question is the selection of apparatus. If water-wheels, whether they shall be of the turbine or re-action type; if steam is to be used, whether the boilers are to be water tube or some other type, engines simple or compound? These are questions which should be decided by a competent and experienced mechanical engineer for each individual case, as they are governed by the conditions, e.g., whether the head of water is to be high or low; whether one large engine or a number of smaller ones must be employed; whether the steam is to be carried a long distance or used near the boilers, and other circumstances too numerous to mention. In small and medium-size mining operations, a mistake is often

[Continued on page 7.]

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[Continued from page 6.]

made in using several separate engines for hoisting, pumping, milling, etc., involving five or six cylinders to be cooled and re-heated, causing a great waste of fuel, when, by a proper arrangement of gearing, one large engine, of the best and most economical type, could be made to do all the work. There is frequently an enormous waste of fuel from this cause alone.

The next point to be decided is one which is so closely allied to the previous one that it must be considered with it, viz.: that of transmission of power, one of the most important subjects in mining, because power must in every case be used for many purposes, and at many places, both above and underground. I find a tendency among mining men, and even mechanics, to advocate some one form of transmission as superior to others, while the truth is that each form (direct steam pressure, compressed air, electricity, rope driving, belt driving, shafting, etc.) has some special advantage, and is better suited to some particular case than any other. For instance, if a mine were so situated that only hoisting, pumping and perhaps a small amount of drilling, had to be done a short distance from the boilers, it would be more economical to use steam direct than compressed air or electricity, each of which consumes power in the transformation by compressor or dynamo; if so situated that a Cornish pump may be driven direct from the main engine, or even by a separate engine with early cut off, and reasonable expansion, it would be much more economical than a steam pump, to which steam must be carried a long distance, and used without expansion, as is common with underground pumps.

Compressed air is admirably suited to underground working. It may be transmitted in ordinary pipes having only the average capacity required, and the pressure maintained by means of receivers at almost any distance from the supply. It may be used in ordinary pumps, drills or other simple apparatus which are easily managed by miners, and in use does not cause any inconvenience from discharge; on the contrary, aiding in ventilating to a small extent. On the other hand, it is attended by considerable loss from the accumulation of heat in compressor, and decrease of pressure by cooling. These losses may be

overcome to some extent by compound cylinders, re-heating, etc., all of which adds to the complication of the machinery, and consequent additional expense and care. Electricity is perhaps the most flexible and convenient of all forms of transmission, because by a simple copper wire it may be conveyed long distances and furnish power for pumping, drilling, haulage, etc., or may be converted into light or heat. Since its use for these purposes is comparatively new, there is much room for improvement in the apparatus, and in the presence of gas in coal mines it may be dangerous from sparking or defective connections, but time will no doubt overcome these objections to a very great extent, and render its use as successful and popular for underground operations as it has become for street car propulsion and other uses above ground.

Although it may be necessary or expedient in some cases to use several forms of transmission for the surface and underground working of the same mine, there would be a great advantage in point of economy of fuel, attendance and repairs in using one source of power, and one form of transmission for all purposes. For instance, if one or more large steam engines of the most economical type could be used to compress air, or generate electricity for distant or underground work, and hoist directly, there would be a great saving of fuel over a number of small engines, pumps, compressors or dynamos. A large mine, to a greater extent than almost any other operation, presents constant opportunities for the mechanic's skill and invention, and since there is always a large amount of material to be moved and operated upon, economy is only to be obtained by performing every possible function by mechanical means. The conditions are so varied that the best mechanical knowledge and original invention is required, and the mechanic, equally with the mining engineer, has the power to make success or failure.

The moral to the investor in mining properties is, make sure of a good mine, under the management of a capable and experienced mining engineer; and to the mining engineer, get good mechanical advice and assistance. I have nothing to say against the advice given gratis by manufacturing concerns, which is frequently honest and valuable, if it is not entirely disinterested, but an independent mechanical engineer, who has had experience in mining operations, and who is employed directly by and for the mine, should be of great assistance, both in selecting and arranging the plant and in operating it.

THE COAL FIELDS ARE ENORMOUS.

The Canadian Pacific Railway is going to get no bonus from the government towards the construction of the Crow's Nest railway. That seems to be taken for granted. On the contrary, it seems to be taken for granted that some effort will be made to re-invest the people with the valuable coal fields which the British Columbia politicians alienated to themselves and their friends. Just exactly what these coal fields amount to in extent or in value the World has hitherto been able to tell only in a general way. We have stated that they included every variety of coal—lignite, bituminous and anthracite; that there were known to be thirty-two consecutive seams exposed to view, one of them being thirty feet wide and thirty miles long; that the combined width of the seams was 180 feet. The Telegram last night produced evidence to show that the coal fields in question are even more valuable and more extensive than we had been informed. According to information furnished the late W. H. Howland in 1892, by an expert, the Crow's Nest property is said to be the finest coal property in North America. The yield of coal per square mile of territory is estimated at fifty million tons, while the whole amount of tons of coal embraced in the coal lands now controlled by the Canadian Pacific Railway is "almost inconceivable." The market for the Crow's Nest coal promises to be a very profitable and extensive one. The Great Northern Railway will distribute large quantities of it throughout Montana, Idaho and Washington, while the Canadian Pacific Railway will handle the coal throughout the mining districts of British Columbia. The railways themselves will consume immense quantities of it. All the smelters and steam plants within 500 or 600 miles of the coal fields will be supplied from this source. Not only will the Canadian Pacific Railway soon possess all these valuable coal fields, but it will be subject to no regulation as to the price at which it shall be carried over the railway. By this deal, which Messrs. Jaffray and Cox engineered between the British Columbia Southern Railway and the Canadian Pacific Railway, the latter corporation becomes much more monopolistic than ever. It owns all the coal fields and can dictate whatever freight rate it pleases. What is Mr. Laurier going to do about it? What course does the Globe intend to pursue? Will it advise the government to disallow the Act of 1896, which seems to be the only loophole left the people for freeing themselves from the bondage of the Canadian Pacific Railway? Or will it continue its academic denunciation of monopolies until the time arrives when disallowance will be impossible? Let the Globe read its anti-coal combine articles that we reproduced the other day.—Toronto World.

The Investing Public

Is requested to consider the following facts about the

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The following statements about the Victory can not be challenged:

1 That the LARGEST BODY OF ORE has been opened up at the LEAST COST compared with any mine in British Columbia opened during the last two years

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3 That as an early dividend payer the Victory compares favorably with any property in process of development

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