

# The Mining Review.

VOL. 6.—NO. 49.

SANDON, B. C., SATURDAY, MAY 23, 1903.

\$2.00 PER YEAR

## REPORT OF THE PAYNE.

### The Year's Work and Future Outlook are Highly Satisfactory.

The annual general meeting of the Payne Consolidated Mining Company was held in the head office of the company in Montreal on Tuesday, May the 12th, at which the report of Manager Garde was presented to the shareholders. The report is the most assuring sent in of recent years. The president, Lt.-Col. F. C. Henshaw, in presenting his address gave a detailed statement of the past year's operations and commented highly of the management of Mr. A. C. Garde. Particular attention was called to the finding of the ore bodies in No. 8 tunnel. This work had been carried on for three years unsuccessfully and had been abandoned. Last year Mr. Garde persuaded the directors to let him start work again, and consent being given the manager commenced tunneling on a plan of his own, and re-located the main ore body in No. 8 several months ago, thereby proving the depth of the mineral and giving permanency to the mine. The president in reading the report said in his address: "This year your directors are pleased to be able to state at last, tunnel No. 8 has reached the ore body. With the discovery of ore in No. 8 and the opening of a market for our zinc, your directors consider that the prospects of the mine are bright. No time will be lost in proceeding with the development of the mine below No. 8 tunnel, and it is the intention of Mr. Mathys, one of your directors, to visit the mine shortly to discuss this matter with the manager, Mr. Garde."

The refusal of the government to raise the tariff on lead and its products was brought before the meeting and considerable comment thereon followed.

The successful year's run of the concentrator and the addition of the zinc plant were also favorably discussed.

Manager Garde's assuring report, as near detail as possible, is as follows:

#### LEVEL NO. 6.

For the past year this level has been extended 245½ feet ahead and now measures 543½ from station No. 16 to the face. This level came into ore in the early part of 1902, when it was followed for a distance of 160 feet, where an upraise was made to connect with a winze which had previously been sunk on the vein to a depth of 60 feet from the floor of tunnel No. 5. The ore chute was proved all the way, thus blocking out on three sides. While timbers and chutes were put in for stopping purposes, the face of No. 6 level was driven 215 feet further ahead proving the ore to continue for additional 90 feet. The total length of ore-body exposed in this level, is, therefore, 250 feet, showing an average width of two feet. The height of this block when measured on the dip, through the connecting winze is 125, with approximately the same average thickness of vein, while the top measurement along the footwall of tunnel No.

5, between the winze and the shaft represents 180 feet, but here the showing of pay-ore is mainly in patches and not nearly so good as in No. 6.

After driving through the above mentioned ore-body in No. 6, development work was continued for 125 feet, proving the vein, but not the values. A very hard quartz dyke made its appearance here, and it was decided to discontinue driving ahead for a while, and undertake sinking on the vein. This was done by starting a prospect winze No. 1 at a point 120 feet from station No. 6. Sinking here proved very satisfactory and the ore shoot was followed to a depth of 50 feet. By that time it was considered a better plan to put an upraise through from level No. 7 and make connection. This plan was carried out as described further on, under "Level No. 7."

In reference to the quality of ore met with in level No. 6 and winze No. 1, I found it to be galena, disseminated with spathic iron (siderite) and zinc-blende considerably above the 10 per cent. zinc limit allowed by the smelters. Although of high grade, this ore under present conditions, must be regarded as a concentrating ore, in which lenses of clean shipping ore are found.

#### LEVEL NO. 7.

This level was started in May, 1903, and driven ahead for a distance of 278 feet from station No. 7. The vein was followed nearly from the start, showing a good width, but at the same time low values, consisting mainly of siderite and a small percentage of zinc blende.

It could reasonably have been expected that the ore body, which had shown up so well in level No. 6, and in winze No. 1, would have reached down to level No. 7, but when it did not do so, I concluded to start an upraise at a point directly under winze No. 1, 140 feet from station, for the purpose of connecting and at the same time exploring the intermediate ground. This proved a good plan, for within a few feet of the level two feet of good ore was struck, and followed all the way until winze No. 1 was reached and connection made. This distance represents 110 feet on the dip of vein. Two short raises have since been put through from No. 7, meeting the ore shoot and blocking out a triangular section of ground.

#### TUNNEL NO. 8.

The length of tunnel No. 8 from portal to present working faces, including all cross-cuts and drifts is now 1,753½ feet. Of this distance 435 feet have been driven during the past year. Shortly after the freshet season in August, development work was resumed in the main tunnel in search of the vein. One hundred and thirty-six feet were driven towards south-west, through a hard siliceous slate formation until a point directly under No. 7 level was reached. No features of encouragement showed up until at this place a fault-fissure with an approximate strike of north-west and south-east, or nearly right angles to the main tunnel was intersected. This fissure, which afterwards led to the discovery of the vein, consisted of a single perpendicular wall, showing traces of severe movements. On this wall was bedded two inches of

tale, followed by a considerable amount of water, flowing out of a narrow gash, which in some respects, reminded me of other fault-fissures observed in upper levels, and caused me to believe that by following same in a south-easterly direction the vein would be recovered. A sharp turn was therefore made, and for two months a crosecut driven straight ahead alongside of the above mentioned faulting wall, until the main vein on February 1st, this year, was suddenly encountered laterally within a distance of 98½ feet from the turning point.

As soon as the heavy flow of water, which was struck at the same time, had run out, drifting on the vein in both directions was started, and at the present time, the east drift is 60 and the west drift 61 feet from discovery point. In both drifts the vein has been followed all the way for a total distance of 121 feet, without showing any signs of particular disturbance in the formation. I may add that it was rather unexpected to find the vein extending both ways inasmuch as the main fault in all upper levels heretofore had been cutting the vein off towards the north east, and therefore limited the ore within the ore zone towards southwest.

In reference to the vein I can say that it has the appearance of a strong and well defined ledge with a strike of north 67° degrees east. It shows two distinct walls, and has approximately the same dip as the vein in 6 and 7 levels.

It is an extension of the main vein and proves the Payne mine to a depth of 900 feet below the apex. My impression is that we have entered the top of a new important ore shoot. The vein is wider and shows a higher grade of ore in the floor than in the roof of the drifts. In the drifts the vein is principally composed of concentrating ore of good grade and of similar physical character as in the ground above. Its average width is 2 1-2 feet, showing in several places swellings of the vein.

Until more work is done I could hardly predict the tonnage or the grade of ore that in time will be produced from the vein above or below No. 8 tunnel, and have, therefore, not included it under "Ore Reserves" further on, but it bids fair to say that the discovery of pay ore in the vein, after a three years search, is highly gratifying and of special importance as to future ore reserves and possibilities of the Payne mine.

#### PROPOSED DEVELOPMENT WORK.

With the encouraging prospects of finding ore in lower levels it would be extremely desirable to consider the question of exploring the mine below tunnel No. 8. One commendable plan would be to continue tunnel No. 8 for about 300 feet towards west, until directly under the crest of Payne mountain, and at this point to sink a central shaft, approximately 350 feet deep, from where three new levels Nos. 9, 10 and 11 could be driven. The results would undoubtedly be the opening of new ore reserves within two years, at which time the present ore reserves probably would be exhausted. To accomplish this it would be necessary to install an electric hoist over the shaft, together with an ade-

quate pumping plant, also driven by electric power. If this plan was adopted it would be necessary to increase the present power plant by installing a sub-power station at Carpenter creek, where the company now holds water rights to the extent of 500 miners inches. A plant of this kind could be conveniently operated in conjunction with the present power plant and pole line to the mine, as this feature was taken into consideration last year, when installing the present plant.

#### ORE IN SIGHT, STOPE FILLINGS, DUMPS, ETC.

From last year's report it will be observed that the estimated total tonnage of back fillings contained in old stopes at the mine, together with the dumps, etc., amounted to approximately 100,000 tons, which may be accepted as a correct figure. Of this tonnage one-third, or 33,000 tons, has been successfully concentrated in the mill during the past year, thereby leaving a reserve of 67,000 tons on hand. With the increased concentrating capacity, this can all be milled within the next twelve months, and will at the same ratio of concentration produce about 2,000 tons of high grade silver-lead concentrates, and 4,000 tons of 60 per cent. zinc-blende. To this reserve might be added the estimated quantity of concentrating ore found in other parts of the mine amounting to about 20,000 tons, which on account of being of a higher grade than the fillings will require about six months to concentrate.

From the above it will be seen that a total reserve of 87,000 tons of concentrating material is available, also that under favorable conditions this can be concentrated during eighteen months of continuous operation. It is, however, more likely to cover a period of two years, especially if there should be more material on hand in old stopes and dumps than estimated.

#### RECAPITULATION OF ORE RESERVES.

During the past two months the London lead market has advanced approximately 25 per cent. over quotations for the balance of the year, and you are now getting \$60 per ton, net smelter returns, for silver-lead concentrates, with present prices of silver 49c. per oz., and lead \$2 per cwt. (smelter settlement.) This valuation is, therefore, figured in the following estimate of total ore reserves. Improvements in the concentrator and the benefits that will be derived from the new Magnetic Zinc Separating Plant has also been considered in the same estimate. Furthermore it would seem that the Dominion government necessarily will have to decide on placing an adequate import duty on lead for the protection of the Canadian lead industry. The government can hardly disregard the united petitions from a section of the Dominion that under favorable conditions, is able to add more than any other part of Canada, to its general wealth.

In the United States the lead producer is now receiving \$3.90 per cwt. against \$2 (or less) in Canada. With your 60 per cent. lead ore, equal to 1,200 lbs. of lead, this price brings \$24 per ton, less 10 per cent. loss in smelting or a total of \$21.60. From this amount a

(Continued on Third Page.)



# The Mining Review.

SATURDAY, MAY 23, 1903.

## J. L. PARKER AND THE SMELTERS

The Ledge last week effectively replied to J. L. Parker, manager of the North Star mine in East Kootenay, for his remarks against that paper, in reference to smelter rates, at a public meeting held recently in Nelson. While we do not approve of the phrases used, especially coming from a would-be preacher, nevertheless the statements are substantially correct. Mr. Parker's utterances at the meeting at which he gave the Ledge a calling down, are completely at variance with the statements of some of the Slocan mine owners. At the meeting held in this city on May 4th, the smelter rates, which is a serious and sore question with the silver-lead producers, came up for discussion. It was pointed out that although the price of lead had decreased the past three years, the smelter rates had increased \$7 during that period. The rates prevailing in the Joplin and Tennessee districts across the border, were brought forward by men who are in a position to know, and a comparison made between them and rates in force in British Columbia. The result was one of the most glaring cases of injustice imaginable. In the southern districts the smelters purchase the ore in the bin at the mine, ship it themselves, smelt, refine and market it at the ruling prices, and the amount paid the miner, transportation companies, the cost of smelting, refining and the price sold on the market, all these combined would not near total what the Slocan mine owners pay for freight and treatment charges alone in British Columbia. These facts were brought out at the last meeting, and the greed of the Canadian smelters in trying to secure the lion's share of the proposed bonus was severely condemned. The above statements were made by persons who know as much, from sad experience, if not more, than Mr. Parker does, and if the Joplin and Tennessee companies can make money after paying freight rates and bearing all cost in the manufacture and marketing of the refined product, what must be the profit of the Trail and Hall Mines smelters which charge more for freight and treatment alone! If this is not a smelter graft we would like to know what is. Mr. Parker may know something about the smelter rates of the low grade properties, such as he manages in East Kootenay, but from his own assertion he knows very little about the rich Slocan mines. The former carry lead with little if any silver values, while the latter are rich in silver and carry a high percentage of lead.

The Slocan mines on account of the high values they contain are charged excessive rates by the Canadian smelters, and if there was the least pretext to increase the present rate, the smelters, from past experience, would not hesitate to do so, and squeeze all they possibly can out of the mine owners, despite all that J. L. Parker may say to the contrary.

The Granby Smelting Company, of Grand Forks, will shortly manufacture their own coke. They have taken a bond on some coal measures near Blairmore, Alberta, and organized the International Coal & Coke Co., under the laws of the State of Washington. The new company, which is really a branch of the Granby, will be conducted by itself. Its capitalization is \$3,000,000 in as many shares of \$1 each. The coal lands acquired cover an area of seven miles, and contain nine seams, half of which have been thoroughly prospected. These deposits will be developed at once and the construction of coke oven nearby commenced without delay. The secret of smelting the low grade ores of the Boundary is cheap fuel. The Crow's Nest Coal company recently increased the price of its product 25 cents a ton. This coupled with the curtailing of fuel supply during the late strike, seriously handicapped the smelters. It is to prevent a similar occurrence the new company was formed. When ready to ship it will furnish the Granby smelter fuel supply preferentially, and with the surplus compete in the market for local trade. At present the Crow's Nest Co. have a monopoly on the smelter coke and coal supply of the surrounding districts, the coast collieries being unable to compete owing to high freight rates and labor disputes. The new company expect to be ready to ship in the fall and the smelter fuel supply of the future is assured.

## AT THE TOP.

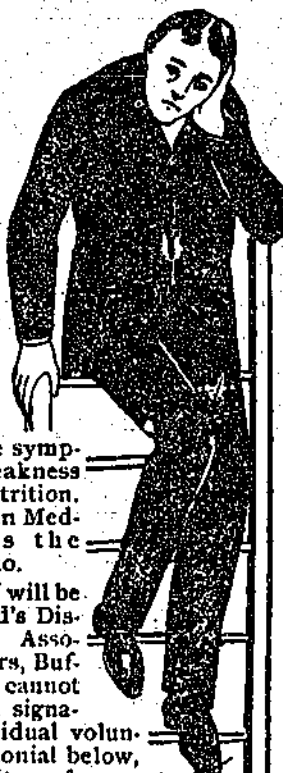
It is a laudable ambition to reach the top of the ladder of success. But many a man who reaches the topmost rung finds his position a torment instead of a triumph. He has sacrificed his health to success.

A man can succeed and be strong if he heeds Nature's warnings. When there is indigestion, loss of appetite, ringing in the ears, dizziness, spots before the eyes or palpitation of the heart; any or all of these symptoms point to weakness and loss of nutrition. Dr. Pierce's Golden Medical Discovery is the medicine to turn to.

\$3,000 FORFEIT will be paid by the World's Dispensary Medical Association, Proprietors, Buffalo, N. Y., if they cannot show the original signature of the individual volunteering the testimonial below, and also of the writers of every testimonial among the thousands which they are constantly publishing, thus proving their genuineness.

"For about two years I suffered from a very obstinate case of dyspepsia," writes R. E. Secord, Esq., of 13 Eastern Ave., Toronto, Ontario. "I tried a great number of remedies without success. I finally lost faith in them all. I was so far gone that I could not for a long time bear any solid food in my stomach; felt melancholy and depressed. Could not sleep nor follow my occupation. Some four months ago a friend recommended your 'Golden Medical Discovery.' After a week's treatment I had derived so much benefit that I continued the medicine. I have taken three bottles and am convinced it has in my case accomplished a permanent cure. I can conscientiously recommend it to the thousands of dyspeptics throughout the land."

The "Common Sense Medical Adviser," 1008 large pages in paper covers, is sent free on receipt of 31 one-cent stamps to pay expense of customs and mailing only. Address Dr. R. V. Pierce, Buffalo, N. Y.



**SCOTT'S EMULSION** makes pale, thin children fat and chubby. Overcomes wasting tendencies and brings back rosy cheeks and bright eyes.

It's surprising how quickly children respond to Scott's Emulsion. It contains just the element of nourishment their little bodies need. They thrive on it.

Even a few drops in the baby's bottle have a noticeable effect for good. Nothing better than Scott's Emulsion for growing children.

We'll send you a sample free upon request.  
SCOTT & BOWNE, Toronto, Ont.

The report of the Payne published in this issue will be read with interest by many. It is highly complimentary to Manager Garde and will prove beneficial to the entire district. It proves the ore bodies at depth without diminishing their values. It will restore confidence in the mines of the district and place mining on a more staple basis. Taken as a whole it is best report, from a scientific and geological point of view, that has yet been sent in from that famous mine. Everything in connection with the mine and mill is in first class shape and as soon as the lead and silver markets become steady, the Payne will be able to ship extensively and possibly re-enter the dividend-paying list before a great while.

Another land slide threatens the town of Frank. An enormous crack in the mountain, several thousand feet long and nearly fifty inches wide has been discovered. An avalanche of rock is liable to come down any moment and the remaining inhabitants have been ordered to leave the neighborhood.

The provincial legislature has again adjourned until the 27th. The investigation in the land grab is about ended and the C. P. R.'s aim defeated. Sir T. Shaughnessy thinks the railway has not been treated right, but outside of Eberts and G. McL. Brown, the rest of the

province is of the opinion the C. P. R. has been treated only too well.

Senator Templeman and other B. C. members presented the request of the silver-lead miners for a \$15 bonus per ton on refined lead to go direct to the producers, to Sir Richard Cartwright on Wednesday. This implies that the bonus, whatever amount is given, will go to the benefit of the miners, and the smelters are sidetracked.

## Metal Quotations.

Silver, 54 3/4c per oz.

Copper, \$15 per cental

Lead, \$4.37 1/2 per cental

Spelter (zinc) \$5.77

Lead is quoted in the London market at £11 16s 9d.

The following are the ore shipments from Sandon for the week:

Mine.	Tons.
<b>SILVER-LEAD.</b>	
American Boy.....	21
Payne.....	50
Total.....	71

# May 25th.

## Regular Train Cancelled

Train leaves Sandon at 8 o'clock a.m., arrives at Kaslo 10:25 a.m. Returning leaves Kaslo at 8 p.m., arrives in Sandon at 10:25 p.m. Fare \$2.00 for the Round Trip.

## Steamer Kaslo

Will Run an Excursion on Kootenay Lake.

## E. M. Sandilands.

NOTARY PUBLIC,

Mines, Stocks and Insurance.

Crown Grants Obtained.

Deputy Mining Recorder.

Sandon, - B. C.

WANTED—SEVERAL INDUSTRIOUS PERSONS in each state to travel for house established eleven years and with a large capital, to call upon merchants and agents for successful and profitable line. Permanent engagement. Weekly cash salary of \$18 and all travelling expenses and hotel bills advanced in cash each week. Experience not essential. Mention reference and enclose self-addressed envelope. THE NATIONAL, 334 Dearborn St., Chicago.

## F. W. Hawkins.

—LICENSED—

PROVINCIAL ASSAYER.

B. x 185.

TELEPHONE 22.

SANDON, - B. C.

**Report of the Payne.**  
(Continued from First Page.)

\$15 freight and smelter charge, besides all cost of mining and general expenses, has to be deducted. It will, therefore, readily be seen that there would be little or no profits in lead mining, were it not for the high values of silver in the ores.

**CONCENTRATOR REPORT.**

It is with considerable gratification that I am able to state to you that the concentrating plant completed on the 1st of May, 1902, has been an unqualified success from the start, even with the extremely low prices that have governed the metal markets during the entire year.

Referring to my special report and estimate on concentrator plant, of November 3rd, 1901, submitted for your approval prior to erection, you will find by comparison with the actual work performed:—

First:—That the ratio of concentrating fillings has been 32 tons into 1, which is better than estimated, and that the tonnage of concentrates produced has consequently be increased in the same proportion.

Second:—The estimated mill capacity of 125 tons per twenty-four hours, has been exceeded by 35 tons.

Third:—In regard to the value of concentrates. These were based on silver at 57½c. per ounce, but during the year this price depreciated to 49c., nevertheless the smelter returns show the average price received from smelter to be \$49.11 or equal to the estimated price, which is due to the higher grade of concentrates produced in the mill. In place of averaging 94.8-10 ozs. of silver and 54 per cent. lead to the ton, the average has been 103.8 ozs. silver, and 60 per cent. in lead, thus making up for the lower metal quotations. The net earnings of concentrator were \$35,706.06, plus \$3,000 for value of zinc on hand, equal to \$38,706.06. If prices had remained staple in place of going down, \$58.21 or \$9.10 more would have been received per ton of concentrates, and the net profits increased by \$11,365 equal to a net total earning of \$50,000.

Fourth:—In regard to the zinc-blend by-product, it will be observed that 1391 tons have been produced in the mill during the year representing \$11,329.87. This amount compensates in a measure for the lower prices of metals.

Fifth:—Regarding the tonnage and class of material put through the concentrator, approximately one-third was taken from the dumps, and two-thirds from old and new stopes. The net tonnage of silver-lead concentrates produced was 1247. The gross tonnage put through the mill was 40,028 tons.

The estimated tonnage in reserve is approximately 87,000 tons, thus the concentrator will have a supply on hand for not less than eighteen months and more probably two years.

One difficulty experienced in operating was shortage of water during two months of the dry season, which held the capacity and efficiency of the mill back to some extent, and for a short time the mill could only be run on one shift. This feature will be overcome before the dry season sets in this year. Fifty miners inches of water have recently been granted us, made up partly from an adjacent stream, and partly from mine water running out of tunnel

No. 8. The intention is, at an expense of about \$2,000 to flume the water from the north side of the mountain to the south side, thereby making it available for power and wash water purposes. With this increase of water I do not anticipate any difficulties in keeping the mill up to its full capacity all year round, especially as the past year proved one of the driest on record in the Slocan.

The plant was put in during "hard times" when the prices of metals went lower than ever, and if it could prove a success under such adverse conditions there seems hardly any doubt that previous records can be surpassed, providing prices come up again, as the tendency appears now.

**MAGNETIC ZINC SEPARATING PLANT.**

(Now under construction.)

Until recently all zinc ores in the Slocan, whether associated with galena or found otherwise, had been entirely disregarded and neglected as a mineral of any value.

In the upper ore-zones only a small quantity of zinc-blende is generally associated with the galena, on which the smelters in the earlier days, placed no penalties. Different conditions existed in a number of the mines located at lower altitudes, where the galena was highly disseminated with a zinc-blende that carried good silver values, but nevertheless could not be sold to advantage and was therefore avoided.

An attempt was made a few years ago to ship 1,500 tons of zinc to Swansea, England, but stranded on account of the sudden death of the promotor. After this unsuccessful effort the zinc ores were left on the dumps, or went through the tailraces as so much waste.

In the meantime the percentage of zinc kept increasing in the galena in nearly all the mines, and necessitated the smelters placing a 10 per cent. limit on zinc, with a penalty of 50 c. per unit above same. In a number of instances the penalty was severely felt, as only a few mines were in a position to keep within the limit, and a number of properties with 25 and 30 per cent. zinc in the galena could not, for this reason, be operated to advantage.

During 1902 the zinc limit was changed from 10 per cent. to 8 per cent. and it became evident, more so than ever, that something had to be done to overcome the continually increasing penalties. Encouragement was, therefore, offered by myself and some of my confreres, which soon resulted in making satisfactory progress towards solving the zinc question, at least as far as your properties are concerned.

While constructing your concentrator in fall of 1901, provisions were made to save zinc values, and an accumulation of several hundred tons of 43 to 45 per cent. zinc concentrates were made between June 1902 and January 1903, with the hopes of securing a market. This lot has now been disposed of in Kansas, and netted over \$8,300. You will readily appreciate that this first attempt in the zinc business was fairly good for a starter, when remembered that the zinc was produced as a mere by-product.

In the meantime I found by careful experiments and tests that a far higher grade of zinc-blende can be made by giving the ores a slight roast, whereby the (epathic) iron is partly converted into an oxide of iron, in which form it becomes an artificial magnetite, and can

be eliminated from the blende in magnetic separating machines with fields of intensified magnetic force.

As soon as this important feature has been fully demonstrated, my proposition to erect a plant for treating 40 tons of zinc ores per 24 hours, in this manner was presented to you, and upon receipt of your prompt decision, ground was broken on the 1st of February, and the necessary machinery ordered at once.

The above plant is expected to be completed in June, providing all of the machinery can be obtained within the stipulated time. The machinery comprising roasting furnace, magnetic separators, screens, elevators, fine rolls, etc., will be placed in a building 40 feet wide by 60 feet long. This building is a west end extension of the present concentrator.

The finished product which will run approximately 60 per cent. zinc, and 16 to 20 ozs. in silver, will contain only a small percentage of iron, and less than 2 per cent. in lead.

With the prospects of being able to produce 6,000 tons or more of zinc from present ore reserves in the mine, during the next eighteen or twenty-four months, I am able to predict a bright future for zinc, and it will be readily seen that the revenues from this by-product from now on will be an important factor to contend with.

**REVIEW OF PAST YEAR.**

In regard to the future of the Payne mine I shall forbear from making promises that necessarily will have to depend on future developments, as well as fair prices for silver, lead and spelter. At the same time I beg leave to call your attention to certain features that compare favorably with conditions three years ago. At that time tunnel No. 5 had little or no ore exposed in the floor, while today the main vein with pay-ore has been proved to a depth of 360 feet below No. 5, and 900 feet below the apex.

I have stated in my last year's report, and I desire to repeat that the true fissure nature of the Payne vein with its banded arrangement of minerals, is both characteristic and favorable for deeper prospecting. Lean strata such as found in all mines, and of which No. 5 tunnel is an example, must be expected, also a hard formation, which will have to be counteracted by the exclusive use of power drills. Subterranean water, will no doubt, make its appearance further down, but can be overcome.

Zinc-blende is now disseminated with the galena to a far greater extent than heretofore, and one of the most important features of the past year has, therefore, been the happy solution of concentration and separation of zinc-blende from the galena, whereby a valuable by-product is added. I have mentioned elsewhere that the constantly increasing percentage of zinc seriously threatened to increase penalties imposed by the smelters, but with the present system of milling it will readily be seen that this feature has been entirely overcome. All ore of a complex nature can now be concentrated into a silver-lead product of an even higher grade than the former clean shipping ore, while the zinc-blende is yielding a by-product of a high commercial value. By having the present complete and successful concentrating plant installed and paid for, together with the Magnetic Zinc Separating plant, now under construc-

tion, you will be in an excellent position to handle all concentrating ore bodies that in depth may possibly replace the former lenses of clean galena, and inasmuch as the zinc-blende must necessarily be separated from the galena when the 10 per cent. limit is reached, the feature of concentration, not alone overcome smelter penalties, but improves the silver-lead product, and adds the zinc-blende as a valuable by-product.

I can furthermore assure you that the extra cost of concentration—including a legitimate loss of values in milling—is readily offset by the lesser cost of mining, and expensive handsorting in the stopes.

All concentrating ore will hereafter be extracted from wall to wall, regardless of high or low values, and no material that pays to concentrate will be permitted to remain in the mine or go to the dumps. Hand-sorting of clean ore will not be done in the mine as heretofore, but in broad daylight at the concentrator, before entering the mill. This constitutes a part of the crusherman's duties. Prior to sorting, all fine material is screened out through a special trommel while large pieces of ore and waste are sorted out by the crusher-tender, thereby accomplishing a material saving. I am quite convinced that the ensuing year, by the above method of mining and concentrating, together with the introduction of additional machine drills will show a material reduction of all operating expenses.

In presenting my report for the fiscal year 1902-3, I desire to state that it has been my earnest effort to submit an unbiased and thorough representation of existing conditions.

On behalf of the B. C. management I beg to tender my respects to the president and board of directors for their ardent support, which under local difficulties always proved a source of rare gratification.

I also wish to extend my thanks to Mr. Sam F. Parrish, E. M., for his professional visits to the mine, and coinciding expressions, as well as my appreciation of the able assistance rendered by Mr. George F. Ransom, accountant, Mr. Joseph J. Strait, mine foreman and Mr. B. P. Little, mill foreman.

**FINANCIAL STATEMENT FOR THE YEAR.**

**ASSETS.**

Mines, mineral claims and assets.....	\$2,610,744 32
Permanent equipm't buildings, machinery, etc.....	54,846 72
Office furniture.....	450 97
Supplies & stores on hand,	3,330 06
Accounts receivable.....	17,301 08
Cash on hand.....	54 98
Traders Bank, Spokane.....	495 00
	\$2,687,223 13

**LIABILITIES.**

Capital stock.....	\$3,000,000 00
Less in treasury.....	400,000 00
	\$2,600,000 00
Accounts payable.....	10,566 15
Bank of Montreal.....	4,863 72
Profit and loss.....	71,793 26
	\$2,687,223 13

All miner's licenses expire in about a week. Don't fail to renew yours before it is too late.



### Local News Notes.

More men were added to the force at Rambler this week.

P. H. Murphy, formerly of the Filbert, is back again to town.

Mayor Grimmett is fixing up around his ranche near Slocan lake.

J. M. Harris is expected to return from Virginia the coming week.

All miner's licenses expire in about a week. Don't fail to renew yours before it is too late.

The miners unions of the Crow's Nest collieries have withdrawn from the Western Federation and joined the United Mine Workers of America, one of the strongest organized labor bodies in the world.

Many will be pleased to know that Rev. R. J. McIntyre has been retained in charge of the Methodist church here by the conference held in Victoria the past week. Rev. A. M. Sanford, formerly of this city, is transferred from Roseland to Nanaimo.

There is much grumbling in town at the clerk of the weather, but there are others who have a kick coming. Ten feet of snow fell in parts of Montana last Wednesday, and the C. P. R. had to use a rotary to clear the snow off the track near Frank early in the week.

The latest paper to enter the journalistic world is the "Despatch," published in the new town of Morrissey Mines. It is a neat, newsy 5-column 8 page print, with patent inside, and is devoted to interests of the Crow's Nest coal mining districts. The Despatch starts out with a liberal advertising patronage, and the Review wishes it every success.

A waterwheel, which furnishes no power, has been placed in position at the mouth of the flume, near the Kootenay hotel. A rubberneck the other day inquired of a bystander what it was put there for, and was told "Just to keep the water moving." However, it looks as if the wheel will shortly follow suit. The water is increasing in volume bringing down rocks in quantity, and the slivers now are flying in the air.

Rev. Father Cote left on Wednesday for his new field of labor, Blezard Valley, a French-Canadian settlement, near Sudbury, Ont. His departure from town is regretted by many, irrespective of denomination. On Tuesday evening Father Cote was presented with a purse and address by St. Joseph's congregation. The presentation was made by Mrs. T. Fox and the address read by Mr. Geo. McDonald, who on behalf of the parish expressed their regret at his departure. Father Cote was visibly affected and made a feeling reply, in which he thanked the donors for the appreciation shown for his services, and assuring his hearers he would never forget the kindness shown him while residing in Sandon.

### City Council Meeting.

The regular meeting of the council was held Monday evening last, when the mayor and Aids. Gomm, Cameron, Crawford and Vallance were present.

### COMMUNICATIONS.

From Geo. Huston, secretary of the school board, asking for payment of a small account which had been paid by them for shoveling snow around the school. His request was ordered filed and the clerk instructed to notify the board that as the amount allowed for janitor work for the month during which the liability was incurred has already been paid they could not legally allow the account.

From Macdonald & Johnstone, solicitors, stating a writ had already been issued against G. M. Sproat to recover tax money due the city.

From Geo. Waite, asking for a ten days' leave of absence extending from June 10th to the 20th inst. The request was granted.

The report of the scavenger was received for the month of April. It showed collections to amount to \$65.

The city clerk was instructed to proceed against all delinquent Traders License holders providing the same have not been settled for by the first day of June 1903.

The council decided to take immediate action to have the shack and temporary fire hall removed. Tenders are to be called for the removal of the same as well as building a side walk in front of the K. & S. depot to connect with the one in front of the Denver house, either separately or in conjunction.

### Slocan Ore Shipments.

The following are the ore shipments from the Slocan since the 1st of January, 1903, to date:

SANDON.	
Payne.....	517
Slocan Star.....	869½
Ivanhoe.....	251¾
American Boy.....	380
Reco.....	134
Ruth.....	140
Blue Bird.....	20
Idaho.....	21
Monitor.....	420
Queen Bess.....	144
Total.....	2905½

ZINC.	
Payne.....	823
Ivanhoe.....	180
Total.....	953

McGUIGAN.	
Rambler.....	551½
Antoine.....	119
Red Fox.....	46
Slocan Boy.....	16
Silver Glance.....	55
Surprise.....	4½
Rio.....	9
Bismark.....	18½
Total.....	819½

SLOCAN LAKE POINTS.	
Arlington.....	40
Black Prince.....	17
Bondholder.....	2
Bosun.....	540
Dayton.....	4
Enterprise.....	205
Fisher Maiden.....	286
Ottawa.....	120
Hartney.....	21
Republic.....	20
Meteor.....	12
Total.....	1207

**Re-opened! Re-modelled!**  
**Up-to-date in Every Respect.**

Cuisine First class. Meals the Best.  
Open From Morn to Mid-night.

**The Sandon Chop House,**  
**H. MURHARD, Proprietor.**

I have now in stock a choice assortment of

**Nickel**

**Enamelled**

**Stamped**

**and Japanned Ware.**

**Remember I am Headquarters for Plumbing and Sheet Metal Roofing.**

**Harry Nash,**

**Tinsmith & Plumber,**

**Sandon, B. C.**



**Your Clothes Are Old..**

**You Want New Ones**

**J. R. CAMERON,**

**Sandon, The Leading Merchant Tailor in the Kootenay Country**

### Advantages of the Trans-Canada.

To summarize the advantages of the Trans-Canada railway it may be said: It will be the shortest line from ocean to ocean by 370 miles.

It will be shorter than any other line from Liverpool to Japan by 720 miles.

Its highest summit will only be 2,850 feet above tide, as compared with 5,400 feet on the Canadian Pacific, and 8,242 feet on the Union Pacific, and it is expected to have much easier grades than any other transcontinental route.

It will run altogether through Canadian territory, and will serve Canadian ports only, Quebec and Montreal in summer, and Halifax and St. John in winter, and on account of its northern position this trade cannot be diverted to United States ports.

It will give breadth to Canada, and will be an impregnable military line.

It can be as quickly built as any other line, and by branch lines and connections will give Montreal, Ottawa, Toronto and Winnipeg a shorter route to the Pacific coast than any other.

It will develop the new back country of Ontario and Quebec in the James Bay territory, and will unite tide water of the St. Lawrence.

It will give Mann & McKenzie's system on the Saskatchewan an outlet to the sea 400 to 500 miles shorter than their present route via Port Arthur.

### A Story With a Bad Moral.

In a prosperous town in Mexico lives a merchant whose wealth grew out of a combination of good luck and drunkenness. An uncontrollable desire for drink cost him position after position, and he drifted down to Mexico and became a news agent. He sold lottery tickets. He had to report on drawing day what unsold tickets he had and forward them. He got drunk the day before one of the big drawings. Two days later he sobered up and found himself in possession of several hundred dollars' worth of unsold tickets. He did not possess \$10 in the world. He examined the list and found that a number of the unsold tickets had drawn prizes aggregating \$35,000 in gold. He collected the winnings, paid for the unsold tickets and took an oath of perpetual total abstinence. That was years ago. He has never touched liquor since and is today a wealthy man. The moral is bad, but the story is too good to suppress.

### Most Interesting to Women.

A practical woman remarked the other day, says an exchange, that the most interesting things in the newspapers to her are the advertising columns. "Long ago," said she, "I quit buying from those who did not advertise. It always seems to me that the merchant who advertises invites me to trade with him, while the one who does not advertise impresses me with the idea that he doesn't care enough for my trade to ask for it. Then, too, I have found that the merchant who advertises has fresher goods, for the reason, I suppose, he sells more."

The Ottawa has seven men on contract work and expect to tap the ore below No. 3 level in another 200 feet.

Another shift was added Monday to the two now already engaged in driving No. 5 tunnel at the Star mine.

Rains and the difficulty of obtaining lumber on time is retarding construction on the Payne zinc plant.

Assessment work has been finished on the Rainy Day. The lead encountered is widening out and a good showing is exposed.

Ore taken from the recent strike at the Silver King and which is being treated at the Nelson smelter is giving 200 oz. in silver and 20 per cent. copper to the ton.

Two very important strikes were made last week when ore was encountered in the lower workings of the Speculator-Arlington mines. On the former the long tunnel has broken into six feet of the best ore yet located on the property. The ore chute is principally concentrating, while along both walls are parallel rich streaks of native silver and sulphides. On the latter, the Arlington, a one foot body of sulphide ore was tapped in a tunnel, about 2600 feet from the mouth of the drift and at 370 feet depth. Though smaller zones have been met with in this tunnel, this strike is the first permanent ore body cut.

### Just What You Want,

Chamberlain's Stomach and Liver Tablets are just what you need when constipated; when you have no appetite, feel dull after eating and wake up with a bad taste in your mouth. They will improve your appetite, cleanse and invigorate your stomach and give you a relish for your food. For sale by F. J. Donaldson.

### CITY OF SANDON.

#### COURT OF REVISION.

NOTICE IS HEREBY GIVEN THAT THE Annual Sitting of the Court of Revision for the purpose of hearing all complaints against the Assessment for the year 1903, as made by the Assessor of the City of Sandon, B. C., will be held in the Council Chamber, City Hall, Sandon, B. C., on Tuesday, June 16th, 1903, at 3 o'clock, p. m.

C. E. LYONS, City Clerk.

Sandon, B. C., May 6th, 1903.

50 YEARS' EXPERIENCE

## PATENTS

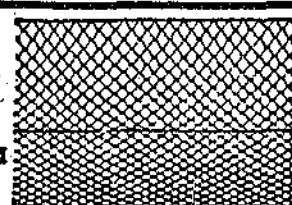
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A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms, \$3 a year; four months, \$1. Sold by all newsmen.

**MUNN & Co.** 361 Broadway, New York  
Branch Office, 625 F St., Washington, D. C.

NOTE  
CLOSE  
MESH  
AT  
BOTTOM



### Page Acme Poultry Netting

A bird cannot fly through as small a hole as it can crawl through, so Page Poultry Netting is made with small meshes at bottom and large at top. No. 12 gauge wire top and bottom—no sag. Get Page fences and gates—they're best.

The Page Wire Fence Co., Limited, Walkerville, Ont.  
Montreal, P. Q., and St. John, N. B.

E. G. PRIOR & CO., General Agents, Victoria, Vancouver and Kamloops.

M. L. GRIMMETT, LL. B.

Barrister, Solicitor, Notary  
Public, Etc.

Sandon, British Columbia.

### ATLANTIC STEAMSHIP TICKETS

To and from European points via Canadian and American lines. Apply for sailing dates, rates and full information to any C. P. R. agent or A. H. Lewis, Agent, Sandon, W. P. P. Cummings, Gen. S. S. Agent, Winnipeg.

### Alta Lodge, No. 29.

A. F. AND A. M.

Regular Communication of the lodge.  
Meets first Thursday in each month at 8 p. m.  
Visiting brethren cordially invited.

JAMES M. BARTON, Sec'y.

### A. R. HEYLAND,

ENGINEER,

AND PROVINCIAL LAND SURVEYOR.

SANDON, B. C.

WANTED—SEVERAL PERSONS OF CHARACTER and good reputation in each province, (one in this district required), to represent and advertise old established wealthy business house of solid financial standing. Salary \$21 weekly with expenses additional, all payable in cash direct each Wednesday from head offices. Horse and carriage furnished when necessary. References. Enclose self-addressed envelope. Colonial Company, 334 Dearborn Street, Chicago.

Established 1858.

### M. R. Smith & Co.

Manufacturers of all kinds of  
Plain and Fancy

### BISCUITS AND CONFECTIONERY

VICTORIA, B. C.

BRANCH—VANCOUVER, B. C.

Why you should buy

## FAIR PLAY CHEWING TOBACCO

Because it is the best quality.

Because it is the most lasting chew.

Because it is the largest high grade  
5 to 10c. plug.

Because the tags are valuable for premiums until Jan. 1st, 1906.

Because we guarantee every plug, and

Because your dealer is authorized to refund your money if you are not satisfied.

THE EMPIRE TOBACCO CO., Ltd.

## COAL

You Want  
the Best.

Try Lethbridge Coal, then you will have the best and cheapest. This coal will make the hottest and brightest fire, besides it is easily handled, as it is very clean. We have it for all kinds of grate.

E. A. Cameron.

## Spokane Falls

AND NORTHERN RAILWAY CO.

NELSON & FORT SHEPHERD RAILWAY CO.

RED MOUNTAIN RAILWAY CO.

WASHINGTON & G. N. RAILWAY CO.

VAN., VIC. & E. RY. & N. CO.

The only all rail route between east, west and south to Rossland, Nelson, Grand Forks and Republic. Connects at Spokane with the Great Northern, Northern Pacific and O. R. & N. Co. for points east west and south; connects at Rossland and Nelson with the Canadian Pacific Railway.

Connects at Nelson with K. R. & N. Co. for Kaslo and K. & S. points.

Connects at Curlew with stage for Greenwood and Midway, B. C.

Buffet cars run on trains between Spokane and Republic.

Effective Nov. 22, 1902.

Leave.	Spokane	Arrive.
9:25 a. m.	Spokane	5:45 p. m.
10:15 a. m.	Rossland	2:10 p. m.
7:00 a. m.	Nelson	8:00 p. m.
11:00 a. m.	Grand Forks	4:00 p. m.
9:15 a. m.	Republic	5:40 p. m.

H. A. JACKSON, G. P. & T. A.,  
Spokane, Wash.  
G. K. TACKABURY,  
Agent, Nelson, B. C.

## Kootenay Railway & Navigation Co. LIMITED.

International Navigation & Trading Co., Ltd.

Kaslo & Slocan Railway Company.

### NOTICE.

Commencing Sunday, August 17th, 1902, the following time card will be in effect on Kootenay Lake and K. & S. Ry.

### KASLO & SLOCAN RAILWAY.

KASLO-SANDON ROUTE.

9:00 a. m. leave	Kaslo	arrive 3:15 p. m.
10:40 a. m. leave	Whitewater	leave 1:42 p. m.
11:00 a. m. leave	McGilligan	leave 1:22 p. m.
11:25 a. m. arrive	Sandon	leave 1:00 p. m.

A direct connection is made at Kaslo with steamer both to and from Nelson.

### STEAMER SERVICE.

KASLO-NELSON ROUTE.

5:00 a. m. leave	Nelson	arrive 7:15 p. m.
3:35 p. m. arrive	Kaslo	leave 8:40 p. m.

Calling regularly at Ainsworth and Pilot Bay and at all way landings on signal. Connecting at Nelson with Nelson & Fort Sheppard Railway both to and from Rossland, Spokane, Etc.

Tickets sold to all points in United States and Canada via Great Northern, Northern Pacific, O. R. & N. Co., &c., &c.

Ocean and steamship tickets and rates via all lines will be furnished on application.

For further particulars call on or address

Robt. Irving, Manager Kaslo, B. C.  
Geo. Huxton, Agent, Sandon.



## Our Bargain Counter

Great Reductions in every line of goods. Our counter is the spot for Bargain Seekers. Prices away down.

### Rigby Waterproof Coats.

Just the thing for this showery weather at prices to suit the times.

See Our New Line of Ties--The Latest Out.

A Line of Suits for 6, 7 and 8 Year Old Boys for

**\$1.50 Per Suit.**

**BIG THING IN UNDERWEAR! AWAY BELOW COST. SEE OUR PRICES.**

# E. R. ATHERTON & Co.

### Local News Notes.

A second ledge has been uncovered on the Dayton property.

G. W. Grimmett, jeweler and optician, paid Nakusp a business visit on Wednesday.

A number of our citizens intend going to Kaslo on Monday and some to New Denver.

The council is clearing up the winter's refuse on the streets and filling in along the flume.

Two speeders, a single and double, were received at the Payne the early part of the week.

Gardening appears to be the rage in town just now and flower beds are springing up everywhere.

Mrs. G. McLeod, who has been spending the past few months in Edmonton, returned to town Saturday last.

H. B. Alexander, who has been wintering in California, returned to town Tuesday greatly improved in health.

Business of the Sandon Brewery is still increasing. Large orders were shipped to outside points the past week.

A merry group of twenty miners from the Slocan Star were photographed by R. H. Trueman in his studio the first of the week.

J. E. Lovering, teacher, was in New Denver the first of the week in attendance with his pupils at the Entrance examination held there.

R. H. Trueman, photographer, closed his studio here Wednesday after a very busy week. He left for Slocan City and Revelstoke on Thursday.

According to reports Cupid has been busy of late. If Dame Rumor is correct three matrimonial alliances are to take place in Sandon before long.

The faulty mail service to which Sandon has been subjected to for sometime past and commented on in last week's REVIEW, was remedied last Tuesday. The eastern and United States mail now arrives by the K. & S. at noon, and the benefits derived from the change are much appreciated by our merchants and citizens generally. The provincial inspector acted promptly as soon as the error was brought to his notice.

Supplies and equipment for both mill and mine have been sent up to the Ruth this week, preparatory to starting up. Messrs. H. B. and George Alexander, the principal owners, have been in town for several days past, and everything points to an early resumption at the mine.

Geo. Gordon has taken charge of the Rambler concentrator. This property now is shape to ship extensively. Active development work has been conducted by Manager Zwicky the past winter. Large quantities of ore have been blocked out and now with the concentrator running shipments will be largely increased.

A number of New Denver K.P's. came in town Wednesday evening. The lodge had to confer degrees on some of its members, and the paraphernalia being destroyed in the late fire, the Knights had to go to the nearest sister lodge to confer the honors. The Sandon "goat" was found to be a husky animal of the mountain species and bumped in the degrees by degree in royal style.

Interest in curling is still unabated. A. E. Hall, while in Revelstoke last week, on his way home from Vernon, ordered a sett of rocks from Scotland. The curlers of Revelstoke and Vernon are sending to the land of the heather for a complete outfit of curling stones, in all about sixty pairs. Mr. Hall happened along in time and being an enthusiastic of the roarin' game, ordered a sett himself. The stones will be shipped from Scotland via Cape Horn to Vancouver, and will be land down in Revelstoke the latter part of October next for \$14 a sett, which is 46 a pair cheaper than they can be obtained in Winnipeg or Toronto.

## Umbrellas

At Half Price.

SILVER MOUNTED, SILK Umbrellas for Ladies and Gentlemen. These at

Half Price.

Will cost you a little more than the common kind, but then you have the best at a SNAP. We have only a few left. See them in the window.

**G. W. GRIMMETT,**

The Leading Jeweler and C. P. R. Watch Inspector.

## Only The Best.

The Daintiest Fruit,  
The Freshest Groceries,  
Choicest Smoked Meats  
and Canned Goods.

Delicacies in Preserved Goods always in stock at

# H. Giegerich.

Corned Beef, Pickled Ox Tongue and Salt Pork a specialty.

Always a choice supply on hand of all kinds of  
Fresh and Smoked Meats,  
Fresh and Salt Fish,  
Hams, Bacon and Lard,  
Fresh Sausage of all kinds daily,  
Oysters and Game in season.

# P. Burns & Co.

SANDON, B. C.

HEAD OFFICE—NELSON, B. C.

MARKETS AT ROSSLAND, NELSON, KASLO, TRAIL, REVELSTOKE,  
GRAND FORKS, PHOENIX, FERNIE, CRANBROOK, FORT STEEL.

# NEW YORK BREWERY,

SANDON

**Towgood & Bruder**  
Brewers of Lager Beer.

Give our Bottled Beer a trial—satisfaction guaranteed.

Telephone 24—Silverton and New Denver.

Agents: Worden Bros.,  
Slocan City.

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Kaslo.

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Neat Work Promptly  
turned out is keeping  
us busy. We can  
still do yours. Try us.

# The Mining Review