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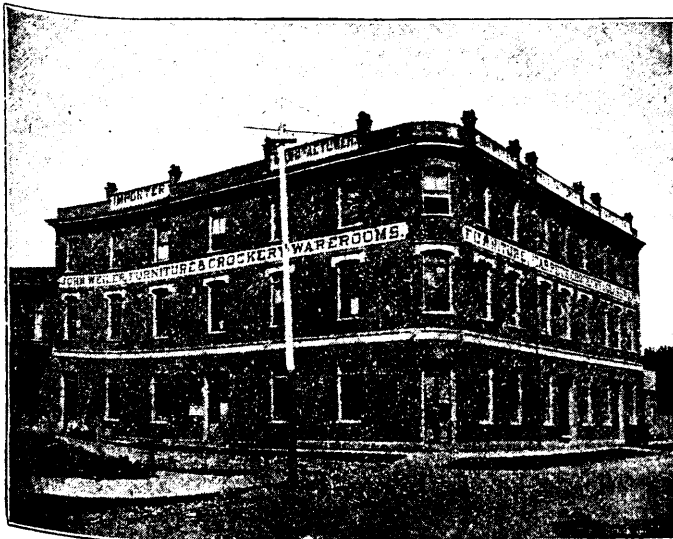
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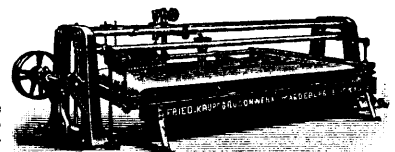
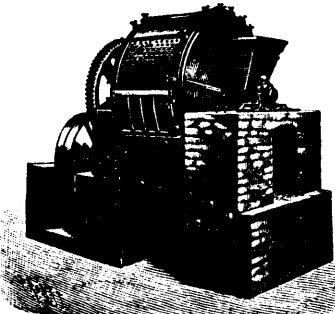
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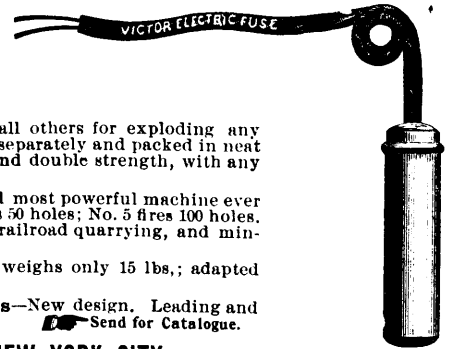
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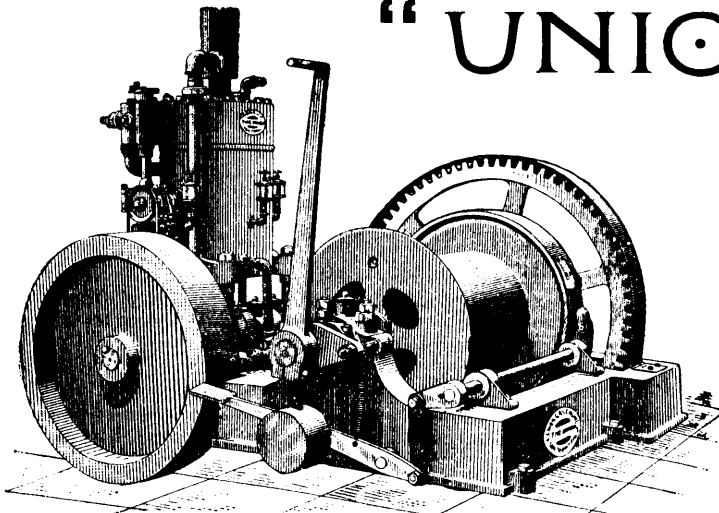
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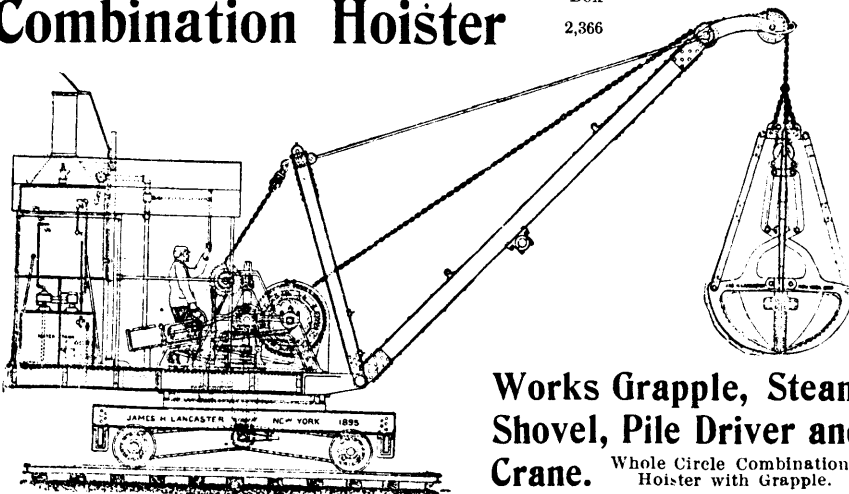
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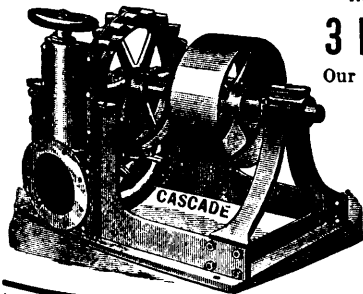
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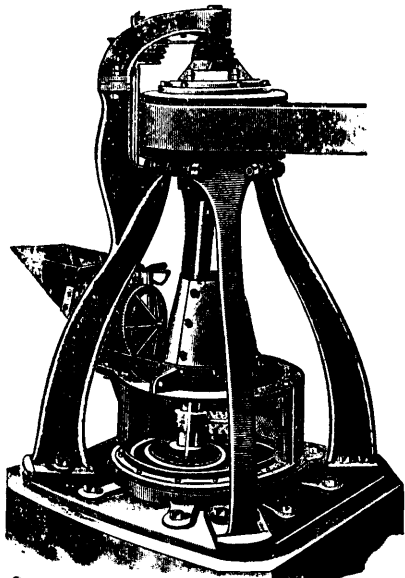
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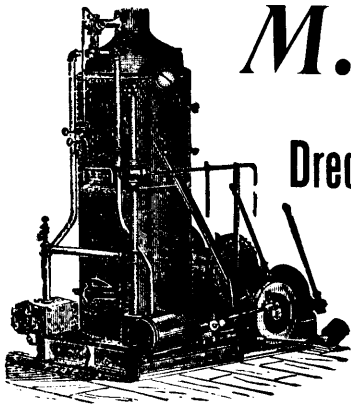
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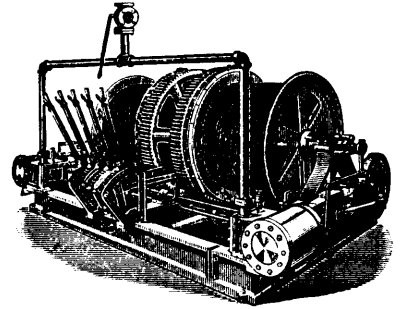
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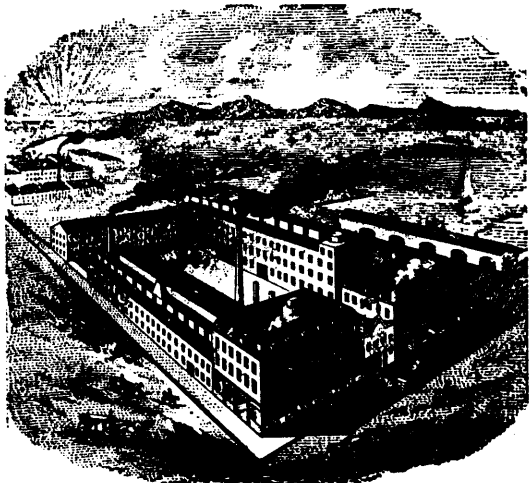
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# The Mining Record.

Vol. III.

MARCH, 1897.

No. 3.

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### EDITORIAL NOTES.

IN our last issue we referred to the prospectus of the War Eagle Gold Mining Company issued in London England. That the statements contained in it did not have the desired effect upon English investors is not to be wondered at.

But what is to be said of the sale of the War Eagle property to Canadian capitalists for \$700,000 when it was valued in England at two million five hundred thousand dollars? It certainly gives rise to a suspicion that all was not as it should have been.

Now we understand that there is much dissatisfaction among the smaller shareholders with the price obtained for the mine from the Gooderham syndicate. Shares were selling at \$1.60 and the holders at this price will suffer a loss of about twenty cents on each share held.

It is yet to be decided whether the provisions of the British Columbia law were fully complied with

when the sale was made. If not, it is likely the dissatisfied shareholders may have an opportunity to assert their rights.

The whole transaction has a queer look in the face of the fact that an English syndicate offered to pay \$200,000 more for the mine than was accepted from the Gooderhams. We understand that they agreed to pay \$200,000 down and the balance in thirty days. If so, the English offer was decidedly better than \$700,000 cash down, which the Gooderhams paid.

It is absurd to suppose although it is offered as an argument in favour of the Gooderham deal that having paid \$200,000 or even \$100,000 in cash the English capitalists might have failed to pay the balance.

The whole transaction is certainly queer to say the least of it, and although we are glad to see the mine in the hands of such men as the Gooderhams we are believers in fair play to all, small as well as great.

The War Eagle sale brings to the front once more the necessity of compelling all companies, no matter where incorporated, to comply fully with the incorporation laws of this province. If the Act providing for the registration here of foreign companies does not go far enough, let it be amended so as to protect British Columbia investors.

Until this is done, or it is made clear that foreign companies must comply with our laws in every respect there is a risk to shareholders if they invest in shares of a company incorporated in Washington or elsewhere, no matter how low they may buy the shares at.

In this connection we would suggest that the law should oblige all treasury shares to have the word "treasury" printed across their face to distinguish them from promoters or other stock offerings. This would afford some security to buyers and would serve as a check upon promoters throwing their shares on the market.

The Revelstoke Board of Trade have passed a series of resolutions which contain certain important suggestions in regard to proposed amendments to our incorporation laws. They bear out our contention that it would be unwise on the part of the Government to impose a heavy fee on mining companies.

They use a strong argument which we lost sight of, namely, that to impose a heavy fee on mining companies would be a hardship on poor men who frequently band together and incorporate for the purpose of developing a mine with the small means at their disposal. This applies particularly to the Slocan district, where there are a number of mines which have largely paid for their development from the proceeds of their own product.

The Revelstoke board also recommend the appointment of a government inspector in each district to report upon the condition of each mine so as to afford investors an opportunity to obtain actual facts. They also suggest a stamp tax on all shares issued as a means of revenue to pay the cost of the inspectors. The recommendation has merit, but we are not sure whether the Government would be able to carry it out.

There is the greatest necessity, however, for the appointment of mine inspectors in the various districts whose duty it would be to see ample protection afforded by mine owners to guard against accident to miners.

We do not think we are going too far when we say that mining operations generally are being carried on in the quartz mines of this province in a manner which exposes miners to unnecessary danger, and the only wonder is that some most serious accident has not already occurred.

Not only are the lives of the miners endangered but visitors to the mines run a great risk when visiting them. A rigid law with an inspector to enforce its provisions would soon do away with this, and it is the duty of the Provincial Government to attend to it without fail at the present session of the Legislature.

The provisions of the English law, which are very strict, might well be copied in this province, but the main thing after the passing of such an Act is to see that it is rigidly enforced. The danger of a miner's life in his efforts to gain a livelihood should appeal to human sympathy and nothing should be left undone to afford him every possible protection.

This being the case, a fact which cannot be denied, does it not appear to be the height of injustice to compel the miner to pay a fee of five dollars to enable him to gain a livelihood at the risk of his life? Not only should he be afforded protection from accident, but the unjust fee now imposed upon him should be abolished at once. Will the Legislature attend to it at this session? If not, the working miners' license if continued may be likened to blood money extorted from the workingman.

We received a copy of Mr. Carlyle's report on the Slocan, Nelson and Ainsworth mining districts just as our February number was issued from the press, and we were therefore unable to deal with it last month.

It is rather late in the day to comment upon it now when it has been before the public for some time, but we may say generally that it is the best and most complete report yet issued by the Provincial Mineralogist. Those who are interested in the mines of British Columbia should certainly address the Minister of Mines, Hon. Col. Baker, or Mr. Carlyle, at Victoria, B.C., and obtain a copy of the pamphlet. It will repay reading. In this issue we reproduce a few extracts from the report.

There is nothing which indicates the rapid growth of business in Kootenay so strongly as the spread of banking institutions throughout the country. Rossland, Trail, Nelson, Kaslo, Sandon, New Denver, Kamloops and now Revelstoke all have branches of great Canadian banks established. The bank of Montreal, Bank of British Columbia, Bank of British North America and Imperial Bank appear to be vieing with each other which will get in first. No sooner is the branch of one bank established than another soon follows, and as bankers are generally conservative in their mode of doing business and do not go where trade will not warrant it, the conclusion which may be safely reached is that our mining towns are at present in a very prosperous condition.

We would call the attention of the Dominion Government to the necessity of more liberal appropriations for the Geological Survey Department. There is not a more zealous or more active arm of the civil service than it and for some time past it has been hampered in its work through lack of money for necessary surveys. Its reports are behind, its maps not up to date, and the surveys, especially in British Columbia, are dragging along while mining operations in every part of the province are being actively carried on. The Dominion Government should keep so important a work as

that of the Geological Survey fully up to date, especially at this time, when Canada as a mining country is attracting so much attention the world over.

A vigorous prosecution of the surveys and the publication of the information collected by the department with up-to-date maps would be of great service at this time in British Columbia. We know that Mr. Bostock is moving in the matter, but a reminder to the Government from the *Record* may not be out of place.

First the stage and waggon, then the steamboat where river navigation is practicable, and afterwards the railway is the usual order of progress in the transportation facilities of a new country. On general principles we, of course, prefer having the railway. If a place can be reached by water it is no reason in this progressive age why a line of railway should not be built if the business warrants it. Railway construction throughout the province should be first in every British Columbian's mind. Yet the day of the steamboat or its usefulness is by no means past. Take the Columbia River, for instance, and the small inland lakes. There are and will continue to be numerous mining camps along their shores which cannot be reached by railway for years. To these places the steamboat is an actual necessity.

But the steamboat is useless unless the river channels are made navigable. It is of great importance, therefore, to this province that any obstructions to river navigation which can be removed should receive attention at the hands of the Government. There are several places on the Columbia and other rivers where obstructions could be removed at comparatively small cost, and if the work could be done soon it would give an impetus to mining in several important localities. We commend this matter to the attention of Hon. Mr. Tarte, who has already proved himself to be an active and progressive minister in affairs relating to this province.

There are three things specially essential to the rapid development of the mining industry of this province. They are railway extension, lower rates and better postal facilities. The first named belongs to the Dominion and Provincial Governments for combined or separate action; the two last pertain to the Ottawa authorities and Parliament to deal with. To the Provincial Government and Legislature we have to look for amendments to our incorporation laws and the better protection of investors, the building of roads and

trails, a better police force, the re-arrangement of recorders' offices for the convenience of prospectors and miners, the abolition of working miners' license fees, an amended municipal law and other matters purely provincial.

The Local Legislature is in session; the Dominion Parliament will assemble in a few days, and we desire at this time to earnestly point out to them the danger of delay in passing necessary legislation for this province. We are on the eve of a season of vast development which will have an important bearing on the trade and wealth of the whole Dominion. Parliament and Legislature will not meet again for twelve months and during that time the want of necessary legislation may have a bad and in some cases disastrous effect on our progress. It may be thought that British Columbia expects too much at one time, but we would remind our legislators that it is a critical time with us and what benefits us will benefit the whole of Canada. Let there be then careful consideration of our wants and liberality when providing for them.

It is satisfactory to note that the two companies who were bidding for the direct line from the Coast to Kootenay have combined forces. It adds strength to their position by being able to show a united front to the Government. We trust that when the Crow's Nest Pass Railway is up before the House for consideration, the direct line to Kootenay will not be lost sight of. We in British Columbia could not stand that without making a very vigorous kick—which would certainly hurt somebody.

We may expect during the coming season to receive visits from all sorts and conditions of experts to examine and report upon our mines. We have no confidence in an expert unless he is a well-known man of unquestioned ability and probity. The power for good or evil possessed by an expert when sent to examine a mining property is immense. Capitalists who know their business generally employ thoroughly reliable men, but unfortunately a man of no character frequently gets his hand in, and in that case the report of the mine goes to the highest bidder. Fortunes have been lost through the instrumentality of unscrupulous experts. It behooves us, therefore, to see that each man posing as an expert is possessed of unquestionable credentials before having any dealings with him. We are bound to have individuals of shady character amongst us this year. It is well to be on our guard.

It is a question whether there has not been up to the present time more developing of companies than mines. The time has come for us to give more attention to mining and less to stock gambling. Our mines are being starved while promoters of mining companies are being made rich. We hang to our proposal of compelling all mining companies to publish a statement of their financial affairs and the condition of the property or properties held by them. It is the true method for weeding out fake concerns.

What we want now is to make as many as possible of our mines dividend-payers and there will be little difficulty in selling shares. People in the East are becoming a little more careful about investing their money on the strength of brokers' representations. A dividend now and then is better any day than a broker's opinion.

In another column we reproduce an article from the *Boundary Creek Times* on Duty on Mining Machinery, which is well worth reading.

#### *Notes From Vancouver.*

VANCOUVER is clearly becoming more and more of a mining centre, although as a point of precious metal smelting and refining its day has yet to come. Even now, however, week by week, the City Council is besieged with smelter propositions and enquiries concerning the amount of bonus which the municipality may be expected to confer. As a mining centre Vancouver is meanwhile attracting prospectors and claim holders from every part of the province and from even beyond the province, for during the last few days quite a number of Americans have been in town, endeavouring to obtain offers for propositions, located either in the Colville reservation or at other points on the other side of the international boundary line.

As, however, the liberality of American mining laws and the safety of mine investments are far less favourably regarded than those of British Columbia and as there are more than sufficient good propositions in this province awaiting the investment of home capital, little has yet resulted from these enquiries from across the border.

A representative of the great copper smelting firm of South Wales, Messrs. Vivian & Co., is now in the city making enquiries as to copper propositions, within easy reach. It is likely that amongst others submitted to him will be propositions on Jarvis Inlet which while containing gold are exceptionally rich in copper and though as yet practically unworked, are believed to be very extensive.

It is commonly believed that the chief reason why some of these Coast copper propositions have not yet obtained purchasers is because of the high prices asked by their owners, who are, however, confident that their properties are extensive and valuable.

The coming spring should see considerable de-

velopment work begun at several favourable points in the Jarvis Inlet district.

Much development work is meanwhile quietly proceeding on the chief claims in the Phillips Arm coast district and a considerable output of gold-bearing ore should be made during the spring months, most of which will doubtless find its way to the smelter at Tacoma.

Good work on a modest scale is also being done on a number of claims in the Pitt and Harrison Lake districts, trial shipments to Tacoma having in several instances proved that the deposits are well worth working. Some of those in the neighbourhood of Harrison Lake are said by their owners to be so productive that only a small outlay will be needed to make them more than self-supporting. How far these predictions will prove correct remains to be seen, but meantime some well-known local owners of these claims are making no effort to put them on the market.

Vancouver men are interested in two coal mining propositions which are attracting attention. One set of locators has proved the existence of large deposits of good coal on the north coast of Queen Charlotte Sound, and thither workers have been sent, with a view to mark out the various claims fully and begin the work of opening them up. They express themselves confident of getting a strong foothold by reason of easy access and cheap water communication to the great market of San Francisco. Of course in this they will have to reckon with a very formidable opposition from the Dunsmuirs and other capitalists of the Nanaimo district. Hence those not interested are by no means so sanguine of big profit returns as are the locators and their friends. In the other case boring for coal is to be commenced in South Vancouver, just beyond the city boundary. It is, however, doubtful whether the deposits of the existence of which there are many good surface indications, are of good coal or merely lignite, possessing moderate fuel properties. Expert opinion is, on the whole, inclined at present to favour the latter supposition.

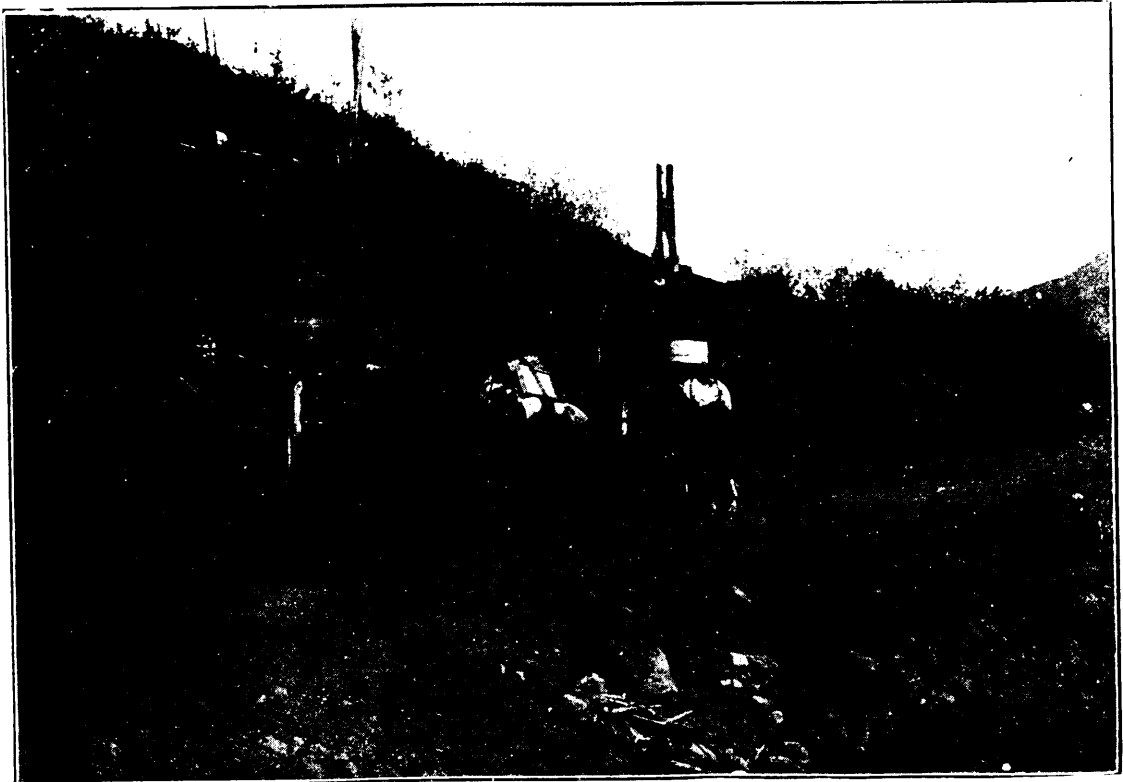
Mr. Fraser, M.E., has reported very favourably on the Silver Tip mine, Texada Island. This mine is to be purchased and worked by Vancouver men under the company style of the Texada Proprietary Gold Mines, Ltd. Mr. McKinnon, president of the Golden Cache mines, is president of the new company, and Mr. John McQuillan, secretary.

Mr. A. E. Rand, of New Westminster, has reported on the Athabasca mine, the well-known Nelson free milling property. The tunnel, besides numerous shafts and cuttings, is in 164 feet. From the surface to the present depth assays have been made at every few feet, and the average is said to be considerably over \$100. A mill has been purchased and will be erected as soon as the weather permits, probably about the 15th of May. Active development work is in progress.

Mr. J. W. Haskins, president of the Orphan Boy Mine Company, has returned from a trip to San Francisco, where he purchased a portable mill for the Orphan Boy property in the Big Bend country. As the location of the mine is away from the high road of travel a mill had to be procured that could be taken in sections on pack mules. The mill is said



CORDOVA AVENUE, VANCOUVER, B.C.  
(From photograph by Edwards Bros., Vancouver.)



PACKING IN BRITISH COLUMBIA.  
(From photograph by Edwards Bros., Vancouver.)



to be a marvellous piece of mechanism as far as lightness and crushing capacity is concerned. The mill will be erected in April, and the thousand tons of ore now on the dump will be crushed.

The Neptune claim on Bowen Island is to be purchased and worked by the Bowen Island Mining Company.

The Albion Company, who have thirteen silver claims on Bowen Island, are shipping several bags of ore to Tacoma as a test lot this month. G.

#### *A Praiseworthy Resolution.*

THE Anaconda, B.C., Commercial Club has adopted the following resolution :

*Resolved:* That the fraudulent methods of unscrupulous and irresponsible so-called mining brokers, who are offering for sale shares of stock in mining properties located in the Boundary Creek district, British Columbia, and upon which prospectuses have been printed, which, of themselves are gross exaggerations of the most flagrant kind, in that they not only do not give a true statement of facts relative to the claims described, but also represent conditions which do not exist, and are therefore misleading to innocent purchasers and detrimental to the development of legitimate properties, be condemned by the club."

#### *The Member for Yale-Cariboo.*

THE writer had a very pleasant interview with Mr. Hewitt Bostock, M.P. for Yale-Cariboo, during that gentleman's recent visit to Victoria. He had just returned from a seven-weeks' stay in England and expressed the opinion that during the present year the attention of capitalists in the Old Country would be directed largely to investments in British Columbia mines. When he was in London much interest was being felt in matters pertaining to this province, especially mining, and information was eagerly sought for. Our resources were becoming better known, and Mr. Bostock found a marked difference in this respect from the time he paid his first visit to Canada, when British Columbia was generally regarded in England as an out of the way, unimportant spot in Her Majesty's dominions. Now all this is changed and people begin to look this way as a profitable field for the investment of their surplus capital. Even the great London dailies and many of the chief provincial papers in Great Britain are paying a good deal of attention to British Columbia affairs. In fact, as Mr. Bostock remarked, we are fast becoming the centre of interest among financial and business men in the old world.

This is very satisfactory, but it also shows that we must not permit the opportunity to slip. It is the duty of British Columbians to see that the interest now being shown in this province is not allowed to slacken. It is the duty of the Dominion and Provincial Governments to see that reliable information as to our resources is freely circulated and every effort used to make known the illimitable possibilities of this section of Canada.

During his stay in the old country Mr. Bostock visited several parts of England and Ireland. Part of his time was also spent in London, so that he

had a good opportunity of gauging the general opinion of people concerning this country. Wherever he went he found that British Columbia occupied more or less attention, and the feeling was growing stronger day by day that this country would take the place of South Africa in public estimation as a field for investment.

On being asked his opinion as to the probability of South African operators turning their immediate attention to British Columbia, Mr. Bostock said there was no doubt about it. One of his fellow passengers on the steamer crossing the Atlantic was a gentleman largely interested in South Africa, who was on his way to Kootenay, and during the coming summer he expected many others to pay this province a visit. Amongst them would be, in all probability, a number of men with little means behind them, on the search for purely speculative ventures, but the generality of the visitors would be men of capital looking out for investments, or bona fide agents of capitalists on an errand of inquiry.

Asked about the Imperial Institute as a medium for making known our resources by means of exhibits, Mr. Bostock stated that the chief objection to the Imperial Institute for such a purpose was that its situation was a little out of the way. He preferred some more central place for exhibiting samples of our minerals, where the general public and especially business men would be more likely to see them. Mr. Bostock favoured very much the idea of exhibiting samples of our ores in central places of London and other cities in England, and instanced the case of the Golden Cache exhibit, which attracted a great deal of notice. The utmost attention, he thought, should be paid to sending the latest and most reliable printed information about the progress of the mining industry. In this respect he thought there was room for improvement, and he would give it his attention.

Turning from the old country to home affairs, Mr. Bostock said it was the intention of the Government to improve the postal facilities in Kootenay in every way possible. Already some steps had been taken in this direction and he intended to press the matter on the attention of the authorities. Some improvements in customs' matters were also in contemplation; better public buildings in several localities was also a subject receiving attention, but above all he believed the Government at Ottawa were fully alive to the prime importance of having better transportation facilities to and from the mines.

The member for Yale-Cariboo is in favour of the Government holding a controlling hand over any of the new railways about to be built. Whoever builds them the strictest conditions, he thought, should be exacted in the interests of the people. He looked forward to the policy of the Government being announced soon as to how the Crow's Nest Pass Railway was to be built, and who would build it. He favoured as early a settlement of this subject as possible so as to avoid delay in construction. He was in entire sympathy with the scheme of a direct line from the Coast to Kootenay and the impression altogether formed in my mind during my conversation with him was that in Mr. Bostock we would have a very active and very earnest

advocate in favour of railway construction in this province.

We discussed a number of matters relating to the welfare of the mining districts, and Mr. Bostock informed me that before returning to Ottawa he intended holding a series of meetings in his district for the purpose of consulting with his constituents as to the needs of the various localities. It is the only way, he said, to ascertain what is best to be done. By the time this is in print Mr. Bostock will therefore have held his meetings, and it may be taken for granted the wishes of Yale-Cariboo will be fully presented during the coming session of Parliament at Ottawa.

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#### *The Alien Law.*

WE observe that eastern papers are being furnished with some sensational news on this point from British Columbia sources which do not agree with the facts so far as this province is concerned. While there may be individual cases where American employers have shown a preference for American over Canadian workmen in the mines, it cannot be said that such a thing is general. Americans are not monopolizing everything in our mining districts by any means, and as a rule, so far as we can learn, Canadians have an equal chance of employment with Americans. There is the best of feeling between the two nationalities and there is not the least danger that the latter will ever get or even seek the supremacy in this province which eastern papers have been led to think. The alien law of the United States is an outrage when it is applied, as it is too often to Canadians who happen to go to Uncle Sam's territory, and it may yet be necessary for Canada to retaliate, but so far as British Columbia is concerned there is nothing but the best of feeling on the part of the people of the province for their American friends who have cast in their lot here. Because one or two American mine owners may have shown partiality for their own countrymen is no reason why the whole American community should be condemned. At the same time it is just as well to let it be understood by any American mine owner in British Columbia who excludes without just cause any Canadian workman from employment that he is treading on dangerous ground.

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#### *A Senator for Kootenay.*

IF rumour is to be relied upon there will be a vacant senatorship in this province before long. Should this turn out to be the case we desire to point out to the Government that the representation of British Columbia in Parliament is not equally divided. The Coast gets the lion's share. Victoria has two members in the Commons, Nanaimo one, Vancouver one, New Westminster one and the great district of Yale-Cariboo only one. In the Senate there are two from the Coast and one from Cariboo, but Kootenay is entirely left out in the cold. So far as the Commons is concerned there can hardly be a change made in the representation until after the next census, and this will mean practically that Yale-Cariboo will have to get along with one member for the next ten years.

Yet during that time the population of Kootenay alone bids fair to more than double that of all the other sections of the province put together. We see, then, before us an injustice being done an important district which apparently cannot be remedied for years to come. The Dominion Government, however, has it in its power, if it so desires, to grant a partial remedy which, although not all that could be desired, would be better than nothing. When a vacancy occurs in the senatorial representation of this province, let the position be given to a Kootenay man. This would leave one Senator for the Coast, one for Cariboo and one for Kootenay—a fair division. To appoint a Senator from the Coast would be an injustice to Kootenay, which to-day is one of the most important sections of British Columbia—one which will have more population and produce more wealth during the next few years than all the other parts of the province combined. We would like to see this question taken up by the people and press of Kootenay so that the Dominion Government may be made fully aware of public feeling on the subject.

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#### *A Word of Caution.*

WE have received letters from England calling attention to a matter of some importance at a time when we are looking for capital to develop our mines. It seems that holders of mining properties in this province are in the habit of employing more than one agent at a time in London to act for them. Each of these agents is furnished with different figures and terms, so that buyers or investors in England become suspicious and decline to have anything to do with the properties offered in this way. To such an extent has this been carried on that British Columbia mining investments are beginning to excite ridicule in the money market and if it is carried on much longer people will have nothing whatsoever to do with them. What parties here should do is to employ only one reliable agent, give him the price and terms and leave the whole matter in his hands. Moneyed men in England as well as elsewhere are shy to entertain any proposition having the least suspicion of sharp practice connected with it, and certainly placing two or three prices at one time on a property does not seem to be quite straight. Coming nearer home, claim owners are frequently in the habit of employing more than one agent in the province to handle their business, and this hawking about of what is probably valuable property results in lessening its estimation by prospective buyers, and in the end it leads to its commanding a less price than it would have done if one agent only had handled it. These few words of caution are worthy of consideration.

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#### *Sampling Works at Kaslo, B.C.*

A SHORT description of the sampling works just completed by the Kootenay Ore Co., Ltd., at Kaslo, B.C., with some account of the system on which it is proposed to operate them, will no doubt be of interest to the mining community of Kootenay, and will answer enquiries received from numerous sources.

First as to the plant. This has been furnished by Messrs. Frazer & Chalmers, of Chicago, from

specifications and designs submitted by themselves to meet the requirements of this district, subject to further adaptations specified by Mr. S. S. Fowler, E.M., who devoted several months to a special study of the local conditions to be met, and in that connection visited the leading mines of the district. The plant consists principally of the following: 9x15 Blake crusher; 24x14 steel Cornish rolls; 12x12 steel Cornish rolls; Bridgeman automatic sampling machine, largest size; Bridgeman automatic sampling machine, smaller size; Challenge ore feeder; sample grinders; Fairbanks' track and other scales. The motive power is steam from 150 horsepower boiler and engine, steam being also utilized for heating and drying purposes. The works have a sampling capacity of 250 tons daily, and are so arranged as to be capable of indefinite extension. There is an ample provision of ore bins, for enabling parcels to be kept entirely distinct and separate where necessary. The sampling floors are steel sheeted in a manner to ensure the ore under treatment from admixture with remains of former lots. Convenient steaming chambers are provided for the handling of frozen carbonate ores. The works are lighted by electricity supplied by dynamos on the premises.

The sampler building, measuring 80x60 feet, is most advantageously situated on the north bank of Kaslo Bay, so graded as to enable the ore to pass by gravity through its various processes. Fire protection is secured by hydrants and hose throughout the building, fed by gravity with a sufficient supply of water. A railroad track has been constructed, connecting the Kaslo & Slocan Railroad system with the sampler, whilst its private wharf on Kaslo Bay, connected with the works by about 100 feet of tramway, provides for the loading of ore, which has passed through the mill, on to the Kootenay Lake steamers by an almost automatic process.

On the important question of the mode of sampling in use, a short explanation may be of interest. The growing tendency to supersede hand sampling by automatic machinery, so as to reduce the process as nearly as possible to a mathematical certainty freed from any possible errors of inaccuracy or carelessness on the part of those concerned, has caused the adoption in these works of two of the beautifully accurate Bridgeman machines. The larger, with a capacity of twenty tons per hour, will be in general use, and gives double samples and three quarterings on each sample, with final samples of one to two per cent. of the original weights. The smaller, intended for use in cutting down the crushed final samples of the large machine, gives a single sample of three cuts.

In any cases where special circumstances may render it desirable, hand sampling will also be practiced at the Kaslo works; but the many points of conceded superiority in the automatic process will no doubt incline customers to take advantage of the double opportunities afforded in these works.

In the immediate proximity to the sampling works are the assay offices, in which will be found a most complete equipment of assay apparatus of the highest standard. The company's business offices are situated in the central part of the city of

Kaslo, about ten minutes' walk from the works, with which they are connected by private telephone wire.

It is confidently claimed for these sampling works that they are excelled by none on the continent in completeness and quality of plant, in efficiency of design, and in natural advantages of site. Ore is here received from the case at the upper side of the works, through which it passes almost automatically by the force of gravity, and is discharged at the lower end on to the steamers, which convey it southward. The abundance of accommodation afforded by the company's site admits of increasing the capacity for handling ore to an extent without any practical limit, with which object in view the plant and arrangements have been disposed from the first.

As to the intention and system of the company's operations, they are to sample ore for the public in a manner as perfect as can be attained, and for a charge moderate both in comparison with the charges of other samplers under like conditions and with regard to the actual expenses necessitated by the existing circumstances. This charge will be \$1.25 per ton, for which the ore will be taken off the cars at the sampler, accurately weighed, put through the process of sampling, assayed, (certificate of contents being handed to the owner), re-sacked and shipped to whatever destination may be desired. It is proposed to put the entire of each parcel through the process, by which means more accurate and reliable results are of course obtained than by the usual methods of sampling only a certain proportion of each lot. The owner of the ore will then receive from the company check sample of his ore and the company's assay certificate representing the contents of the parcel with the highest degree of accuracy attainable by science.

After the ore is sampled and contents thus declared, should the owner wish to sell the ore, the company are prepared to purchase the same, paying cash at Kaslo on day of purchase. It is to be understood in this matter that the company are acting as the agents of no smelter or other parties, but solely as purchasers of ore at market rates, with liberty to dispose of it afterwards when and where they may elect. In this manner there will be presented to shippers of ore, in the first place, means of arriving on the day of shipment at an independent and absolutely reliable valuation of their ore, authenticated by the company's certificate; and in the second place, a ready market for prompt cash should they desire, after seeing it sampled and receiving the certificate, to dispose of it then and there.

Where a car consists of more than one grade of ore, each grade will be sampled separately where desired.

The sampling process from beginning to end will be open to the inspection of the owner of each of any parcel, who is invited to satisfy himself, by his inspection of the plant and the process through all its details, of the perfect and unvarying accuracy which is assured in these works. For this purpose orders of admission to the works will be issued on application at their office, and without these no admission can be had to the sampler building when in operation.

The heads of the various departments are men of extensive experience and highest qualifications in their respective branches, and they have at their disposal the most complete and perfect appliances for their work that can be procured. The object of the management is to study in every particular the needs and convenience of the ore shippers of this district, and to make these works as valuable and indispensable an adjunct to the mining camps of Kootenay as less complete sampling works have become in the older mining districts. The statements of contents and values, which will be furnished to sellers of ore, have been carefully arranged to show in the clearest and fullest manner every detail by which the value of the parcel is arrived at, gross weight, weight of moisture, net weight, assay contents per ton, and all other particulars necessary to enable the seller to understand every item clearly by which the final result is produced. The official New York quotations are received at the works by special telegram from New York daily through the Western Union Telegraph Company.

From the above it will be seen that every advantage hitherto attainable by sellers of ore in the outside markets will be at the disposal of the mining men of this district, with in addition the following very valuable considerations..

1. The absolute accuracy of the return is assured to the seller by the process being carried out under his inspection if desired, with no possibility of admixture with other lots.

2. The cash value of the parcel is thus accurately ascertained, whether sold at Kaslo or elsewhere.

3. If sold at Kaslo, cash payment is received on the day of sale, thus saving both interest on the money for the time which would otherwise be lost whilst waiting for returns from smelter, and saving the bank exchange charged upon smelter returns.

4. When the ore is sold at Kaslo, the sacks are shipped back to the mine on the following day, thus diminishing the number of sacks required, and largely increasing their duration, whilst much trouble in keeping track of the sacks will be avoided to the miner.

5. By having an assay of each car load returned to the mine within a day or two of shipment, the most valuable information by which to direct the working of the mine and the regulation of its output will be constantly afforded.

6. All trouble and expense to the mine owner in attending to the complicated customs requirements and the filling up of shipping papers, etc., will be taken off his hands.

Another benefit of considerable importance, which the facilities of these sampling works will introduce into this district, is that all mines within easy shipping distance of the railroad can arrange to ship their ore in bulk straight from the tunnel, thus avoiding the heavy expense of breaking and sacking ore at the mine. When received in bulk at the sampler, the ore is crushed, sampled and sacked by one continuous process, for a charge of \$1.25 per ton. In most mines the expense of breaking and sacking ore is from \$3 to \$5 per ton, which would thus be entirely saved, whilst in addition

the mine owner would receive the further benefits above enumerated.

The Kaslo sampling works have been built not by strangers to this district, but under close practical knowledge of the conditions to be met and the wants to be supplied. It is believed and hoped that they will place at the disposal of the mining community every facility required for enabling their increasing ore output to be marketed with safety and profit to the miner.

### *The Tramway at the Noble Five Mine.*

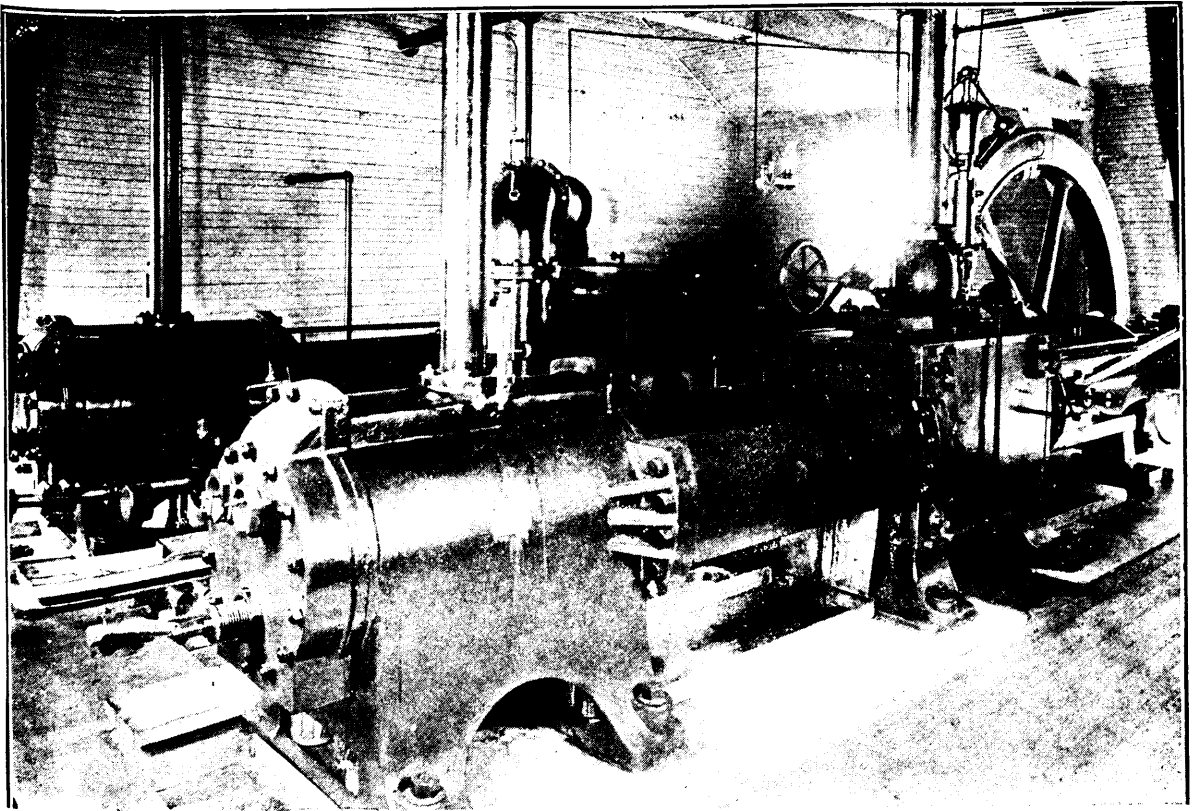
#### THE FINLAYSON TRAM.

THE Finlayson Tram, built by the Colorado Iron Works Co., of Denver, Col., and the first one of which is now in perfect operation at the Noble Five, may be said to be the mechanical triumph of the year, as it solves a problem of transportation upon which tramway men have worked for years, that is, a perfect working, safe, cable tram, automatic in load and dump.

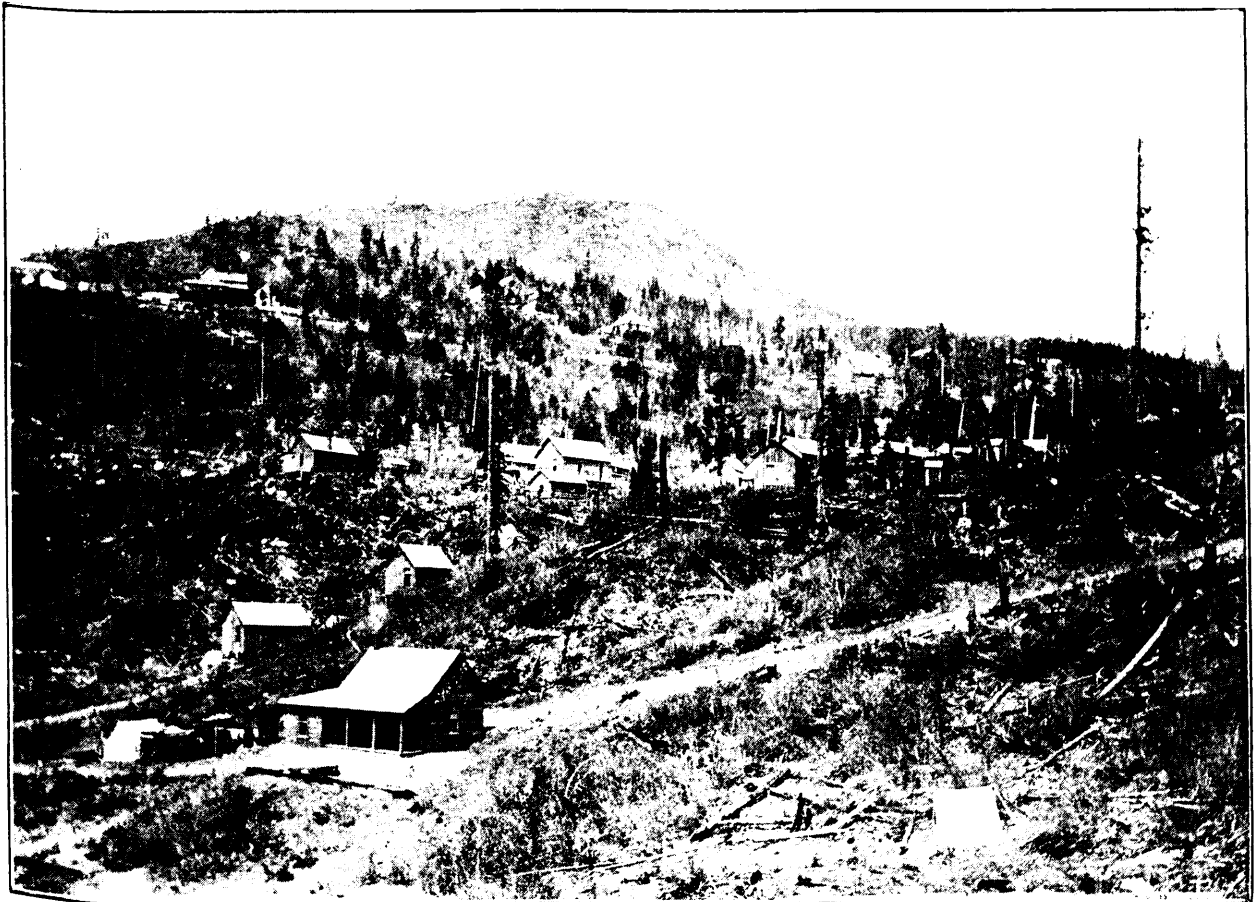
The Finlayson is the first four-cable tram ever built. It consists of two standing or stationary steel ropes one inch in diameter on the unloaded side and one and one-eighth inch rope on the loaded side, laid upon towers from 100 to 300 feet apart. In the case of the one under discussion the towers are from 30 to 900 feet apart and vary in height from 40 to 80 feet. On this rope run the bucket trucks. These buckets in this case number fifty-two. Below the standing rope is an endless rope three-quarters of an inch in diameter, to which the buckets are attached by patent detachable clips 24 feet apart. This is known as the traction or hauling cable. The weight of the loaded cars pulls the empty ones up, the cable being controlled by powerful brakes at the two terminals. The clips referred to above are stationary on the rope and it is the automatic action at the terminals which attaches and detaches the clips to the buckets, dumping the latter at the lower station, which excites the wonder and admiration of all beholders. Space forbids a minute description of this action, but, briefly, there are two buckets, one at the upper terminal being loaded, and one at the lower terminal being dumped and waiting for the arrival of the next bucket, which are always detached—the moving bucket on arriving at the station is detached, the cable with its stationary clip moves along a few feet engages a dog on the waiting bucket, never stopping, and moves with it around the station; before beginning its upward climb it engages a projecting arm, which action dumps the waiting bucket on the other side. The same operation is continued, a bucket arriving every seventy-five seconds. The same automatic action obtains at the upper end with the exception that instead of being dumped, the waiting bucket is loaded. The buckets are now being loaded with 350 pounds of ore, but will carry 700 pounds.

The Noble Five tram is 6,100 feet in length and has a drop in that distance of 2,100 feet. At one place it crosses the famous Noble Five slide with a 900 foot span at a height of 443 feet.

A leading feature of the Finlayson tram is the cheapness of operation. It is operated as in this case by three men, at an expense of \$10 per day, a trifling cost compared with other systems. An-



LE ROI MINE AIR COMPRESSOR, ROSSLAND, B.C.  
(From photograph by Edwards Bros., Vancouver.)



LE ROI, WAR EAGLE AND OTHER MINES.  
(From photograph by Edwards Bros., Vancouver.)

other feature is its great convenience as an up-carrier; supplies for the mine, timbers, rails, etc., can be placed in the up-going buckets and taken up without cost. The capacity of the tram now in operation is about 400 tons in twenty-four hours.—*Kootenaiian.*

### Ainsworth.

SINCE the discovery of the Slocan, the Lardo-Duncan and Trail, and the booms that followed each in succession, this pioneer camp of West Kootenay was well nigh forgotten. Scarcely a capitalist, surveying party, or an expert visited the camp from 1892 until the fall of 1899. Several were in during August, September and October, but nothing was done until N. Clarke Wallace bonded the Little Phil in December. Since that time the place has been crowded with moneyed men and their experts; no less than seven of the latter were seen to strike out up the mountain on the morning of January 25th. Mines are selling, claims are being bonded and new development is being started every day.

During the four years of quiet in camp, a few who had faith stayed with it, a considerable amount of development was done, and the proof has been conclusive. It is a question if we have not got as good a camp as there is in the whole Kootenay. We have at least one mine that is second to none in point of value of its ore. This is the famous No. 1 mine.

After some twelve years of work they now have their vein in place for the first time. On this property the first concentrator ever built in West Kootenay was erected and has run night and day since, excepting when water was short. The mine has never looked so well as at present.

The Krao mine, which was the first mine to ship ore from British Columbia, owned by A. D. Wheeler, has been bonded to Rossland parties for \$500,000, and work will soon be commenced on it. It is said that there is over fourteen feet of clean galena ore in the lower levels of this mine.

The Carbonate King group is steadily working with a small force of men. The Neosho is pushing development work this winter so as to be in shape for a large force of men in the spring, which the Hall Mines Company will put on.

The new pump and boilers are in place and running day and night at the Tariff. Five men are employed. Over two feet of solid clean ore shows in breast of both drifts. Thirty tons were shipped on Sunday last.

The Albion tunnel is now in about two hundred feet; one hundred and twenty-five feet more has to be run to tap the vein. Work has been suspended on the Highlander until June 1st. The Dellie tunnel is now in three hundred and twenty-five feet with a fairly good showing of ore, yet the main vein is some way yet ahead of the present working.

Wm. Alpers, manager of the Silver Glance, recently purchased from Messrs. Franklin, Fitch & McLeod for \$15,000 besides a stock proposition, is in camp and will commence work on the mine at once.

Fred. Steele, representing an eastern syndicate, came in on Monday night with G. M. Gibson to stock up the Little Donald and Black Diamond,

two properties lately purchased from John F. Stevens, of the Great Northern Railroad, for \$65,000. Mr. Gibson retained an interest and will superintend the properties. Work is still being carried on in the main tunnel of the Little Phil; the No. 3 vein is expected to be cut any day now.

J. M. Kellie, who represents the North Riding of West Kootenay in the Legislature, was in the city last week to talk over the needs of our camp, one of which is a waggon road across Cedar Creek to Woodbury. Several properties are being developed in this part of the camp; three or four would now be shipping had they a road.

In this part of the camp most of the properties run from thirty to seventy ounces silver, and from sixty to eighty ounces lead, with large, well defined leads. Among these are the Highlander, with about eight hundred feet of tunnel and over five hundred feet of raises besides a number of feet of surface overhangs. The last raise of two hundred and eight feet has just been finished. It was started from the lower tunnel in about six hundred feet. Clean ore was encountered all the way up, most of the way the full size of the raise. A concentrator will be erected on the property in the early spring.

Further north on the same range is the Twin mine, on which is probably the largest surface showing in West Kootenay. There are nine well defined veins; seven of them have been opened on the surface, and are quite extensive. All show nice, clean ore. A tunnel has just been started on one of the cross veins which will run about one hundred and twenty-five feet before it reaches the main vein at a depth of one hundred and fifty feet. The face of the tunnel now shows ten inches of clean ore that assays seventy ounces of silver and eighty per cent. lead.

The Lawrie, still further north on Woodbury Creek, is running a tunnel south on a vein that shows fine ore, assaying forty to one hundred ounces silver, thirty to seventy per cent. lead, and eight to forty dollars gold per ton. The Silver Glance is about two thousand feet up the creek from the Lawrie.

The Ellen has been sold and work will be commenced as soon as cabins can be erected. Spokane parties are the buyers.

The Gallagher has just made a shipment of three hundred and eighty sacks of ore.

Strobeck & Co. have bonded the I.X.L. to Donald McLeod for Toronto people, and work has already commenced on it. The same parties have also bonded the Star to Mr. W. J. Brown for California parties. Work will be commenced on it on the 15th of this month.

The Mile Point has been bonded for \$35,000 and work is to commence within thirty days.

The Noble Three has been sold to H. J. Herald, of Toronto, a spot cash deal, price not stated.

The C.P.N. & M. Co. at Woodbury are working full force. The new concentrator has been running nearly four weeks now, and is doing excellent work. It is claimed the saving is ninety-seven per cent. The galena, zinc and iron are each cleaned and separated. The galena carries all the gold and silver. The zinc and iron only carry about one ounce of silver and three per cent. lead. The tailings only show a trace of either silver or lead.

D. F. STROBECK.



**British Columbia Foreign Coal Shipments.**

Following is the list of foreign coal shipments for the month of January, 1897:

## NEW V. C. CO. SHIPPING.

Date.	Name and Destination.	Tons.
5—	City of Everett, San Francisco	3,802
8—	Willapa, Port Townsend	56
11—	Eva, San Francisco	4,504
13—	Willapa, Juneau, Alaska	21
14—	Peter Jebsen, Los Angeles	4,580
19—	City of Everett, San Francisco	3,813
19—	Tacoma, Port Townsend	22
21—	Wanderer, Port Townsend	43
22—	Elwell, San Francisco	2,222
23—	Willapa, Port Townsend	65
31—	Peter Jebsen, Los Angeles	4,650
		23,783

## WELLINGTON SHIPPING.

Date.	Name and Destination.	Tons.
1—	Al-Ki, Mary Island	500
2—	Signal, Astoria	430
4—	City of Puebla, Seattle	500
5—	J. C. Potter, San Francisco	1,930
9—	Wellington, San Francisco	2,550
9—	Walla Walla, Seattle	800
13—	City of Topeka, Sitka	134
15—	Florida, Portland	700
18—	Angeles, Port Townsend	65
19—	City of Puebla, Whatcom	600
19—	Costa Rica, San Francisco	2,500
20—	Jeanie, San Francisco	1,250
23—	Wellington, San Francisco	2,650
27—	Holyoke, Port Townsend	45
		14,654

## UNION SHIPPING.

Date.	Name and Destination.	Tons.
7—	San Mateo, San Francisco	4,000
9—	Costa Rica, San Francisco	2,500
14—	Edith, Tacoma	23
14—	Miowera, Victoria	800
14—	Minneola, San Francisco	3,050
14—	Florida, Portland	4,167
29—	San Mateo, San Francisco	4,000
		18,540

## RECAPITULATION.

	Oct.	Nov.	Dec.	Jan.
New Vancouver Coal Co.	17,310	19,032	31,933	23,783
Wellington	17,552	28,068	25,099	14,654
Union	11,534	300	14,805	18,540
Total	46,396	47,400	71,837	56,977

**The Mails in Kootenay.**

THERE is something "rotten in the State of Denmark" about the mails in Kootenay. Not only do letters take a long time to reach their destination, but in numerous cases they never reach there at all. Once placed in Her Majesty's mail they are lost forever. We do not attempt to place the blame on any particular shoulder, because, frankly speaking, we do not know where it should rest. One thing is certain, however, that letters miscarry and never turn up. The whole service in fact, so far as Kootenay is concerned, requires to be rigidly investigated and improved. The manner of handling the mails in transit should be altered, and the parties having the contract for carrying them made to use more care. As it is, you see mail bags dumped in amongst freight or thrown about carelessly, even lying sometimes on a wharf unprotected. This is all wrong. Steamers carrying mails should have a special room provided for the purpose, and it should be

kept locked. Waggon carrying the mails should have a covered locker for the purpose. In short, the mail bags should be kept separate and distinct by themselves, as in the case of railways, where a special car is provided. If more care was taken in handling the mails in transit through Kootenay we think there would be fewer letters lost. The post office should in each case be kept separate and distinct from any other business of the postmaster. We commend this matter to the attention of the Postmaster-General. Mails go into Kootenay *via* Spokane and *via* the C.P.R., but there seems to be no regular system employed to make use of the two routes. Let a system be established, and let the public know what it is.

**Against Monopoly.**

WE have received the following resolutions passed by the citizens of Brandon and Slocan City protesting against the incorporation of a company to take and use the waters of Lemon and Springer Creeks on the grounds that it would be granting an unjust monopoly. The Government cannot be too careful in granting any such charters which may in the future retard development in our mining districts. We therefore submit the following resolutions to the consideration of our legislators:

Whereas for some time past there has appeared in the Slocan City *News* notice of an application for a private bill to incorporate a company with very large corporate powers for a great variety of purposes to operate in that section of country within a radius of fifteen miles from the towns of Brandon and Slocan City, B.C.

Whereas the powers of expropriation in said notice mentioned would by implication enable said company to force a purchase of any business, industry, or enterprise within the said radius by simply expropriating the site thereof.

Whereas in said private bill no charter, grant, privilege, franchise or exclusive right should be granted so as to create a monopoly or give said company any exclusive rights whatever.

And whereas a grant of the water rights on the creeks and streams within the said radius to said company would prevent the erection of many concentrators, saw mills and other works; would enable said company to charge others such rates as their interest would suggest; would have the effect of retarding the growth of our towns and the development of our mines which cannot be worked without a large amount of water; would cause a depreciation in value of all property within the said radius; would result in a great loss of revenue to the province and would make the present and all future inhabitants and property owners within said radius mere vassals of said company.

Therefore, resolved, that we the residents of the said towns of Brandon, Slocan City and vicinity in public meeting assembled do protest (1) Against the incorporation of said company with the powers of expropriation in said notice mentioned or any power of expropriation whatever. (2) Against the grant to said company by any private Act under said notice of any charter, grant, privilege, franchise or exclusive right whatever.

We further resolve that no company or person should by private Act be given the power to take or use the water of any creek or stream within the said radius except under the provisions of the "Land Act," "Mineral Act, 1896," and other general public Acts made and provided, or except for a limited use upon the special petition of the town or community most affected.

And it is further resolved that a copy of these resolutions and recitals be forwarded to J. Fred Hume, Esq., M.P.P., Captain N. Fitzstubbbs and to such newspapers for publication as the committee in charge may agree upon.

Dated this 6th day of February, A.D. 1897.

FRANK DICK, Chairman.  
C. M. WOODWORTH, Sec'y.

### Duty on Mining Machinery.

THE late Government, under the leadership of Sir Charles Tupper, passed an enactment admitting mining machinery into Canada, when of a kind not manufactured in the Dominion, free of duty, until July of this year. The enactment, so far as it influenced either the development of the mining industry or the manufacturing interests of the country one way or another, might as well never have gone beyond committee, for the simple reason that no matter what class of machinery is passed through the customs the officials invariably enforce the payment of tariff charges upon the grounds that, if such machinery is not manufactured in Canada, it can be; and this decision naturally is sustained by the acknowledgement of the manufacturers that though not perhaps absolutely turning out from the factory the machinery specified, still upon receipt of an order they could do so. With this side of the question we do not propose to deal, but everyone interested in the development of mining in Canada, and particularly in British Columbia, is eager to learn what steps will be taken under a Liberal administration. What would the removal of the duty on mining machinery mean? Would it be the death blow to the manufacture of such machinery in Canada? Assuredly not. But it would certainly have the effect of raising the standard of home manufactured machinery at least equal to the product of the United States' factories. Admittedly, not only in the case of mining machinery, but also in many other classes, the American manufactures are distinctly superior to those of their Canadian competitors. Not that the American designers are more highly educated, or the artisans better workmen; but the result is directly attributable to the National Policy of Canada in the past,—*causa latet, vis est notissima*, perhaps. Protection, whatever its advocates may advance in its favour, is an economically pernicious and unsound principle, if only upon the grounds that it allows an inferior article to be placed upon the market under conditions where it can be brought into successful competition with higher class products.

A probable effect of the admittance of mining machinery free of duty into Canada would be the establishment of factories at Vancouver or Victoria, in preference to eastern cities on account of the proximity of the former to the greatest mining districts in the Dominion. Upon the completion of a direct railroad between the coast cities and the Columbia River, mining machinery could be supplied from Vancouver, not inferior to the finest products of the Chicago or San Francisco factories, to the great mining camps which, it is no longer doubted, will be established *en route* from Hope on the Fraser to Trail on the Columbia. At the cost, less duty, of machinery now imported from the United States, when the difference in freight rates and distance is calculated.

The point, however, to be considered by the Government is: Will the remission of the duty on all classes of mining machinery be of material benefit in assisting the development of the growing industry of mining in Canada; and how will the manufacturing interests be affected? With re-

gard to the first, it must be admitted that in camps such as Rossland or Boundary Creek where the ore deposits are, as a general rule, of immense size though of low grade, only worked to advantage by wealthy corporations, the question of a few hundred or even thousand dollars in the difference of price on machinery would not interfere with or check development to any serious degree. But in certain sections of Ontario, in Nova Scotia, in the Slocan, where small veins of high grade ore have been discovered under conditions that admit of the prospector himself mining his find, it is clearly to the interests of these neighbourhoods that machinery should be procurable at the lowest price. It has been asserted by the protectionists as arguments in favour of maintaining the present tariff on mining machinery, that American manufacturers are contemplating erecting works in Canada, and that at least one prominent American company has made arrangements with a Canadian firm to manufacture its specialties on this side of the boundary. Granting that it can be logically proved that the tariff charges are responsible for this movement, it would naturally follow that if the mining industry of Canada ever assumes an importance commensurate with its potentialities, factories producing machinery both for the equipment of mines and treatment of ores will be established within a reasonable distance from the mining centres.

Moreover it must be remembered that the mining industry is already directly taxed proportionately higher than any other industry. The duty on mining machinery is an indirect tax on the mining industry, and it is to be hoped it will be removed.—Boundary Creek Times.

### Horsefly Gold Mining Company Report.

ALTHOUGH rather late in the day, it having been submitted on the 31st December, 1896, we publish in full the following report as giving some idea of the cost of preparing for hydraulic mining on a large scale. This company is expected to show good results the coming season:

To the Stockholders of the Horsefly Gold Mining Company:

Gentlemen.—As secretary and manager of this company I submit the following statement of work accomplished at the company's Horsefly mine during the past mining season, as well as a general account of receipts and disbursements in connection with the Horsefly property since it was acquired by this company.

Beginning active operations about April 1st, 1896, we excavated a canal along the line of survey located in 1895, five miles in length, about one-half mile of which was principally rock; dimensions thereof: 8 feet top, 4 feet bottom and 3 feet deep; cost \$5,643.35.

Converted about 100,000 feet of fir logs into lumber, requisite for the construction of flumes at depressions on our ditch and said flumes carried on trestles ranging from twelve to thirty-five feet high, which were completed at a cost of \$3,814.35. Constructed a bridge across the Horsefly River for the purpose of carrying the necessary distributing pipes to various parts of our claim.



Purchased and shipped necessary mining machinery and tools (at a cost of \$19,775.45) weighing approximately 460,000 pounds, including four hydraulic elevators, gates, giants, etc., and material for 14,525 feet of hydraulic steel pipe which had to be hauled from the railroad station at Ashcroft in waggons 175 miles to the mine. The duties on material and freight to the mine amounted to \$23,495.64. The pipe was manufactured at the mine, costing \$5.515 for labour. In order to deliver material for our flumes and pipe line where required, we made ten miles of road; we erected two buildings necessary for our workmen; dammed Mussei Creek, made five waste flumes and gates on ditch line, made two large bulkheads and sand boxes, and all appurtenances necessary to complete a first-class ditch, and thirty-inch steel pipe line for hydraulic mining.

The pipe has been placed ready for active mining operations as quickly as climatic conditions will permit—probably by the 1st of April. Accomplishing the work necessitated the employment of in the aggregate 200 skilled mechanics and labourers, with a total expenditure in connection with the property of \$100,985.23, as per following statement:

Capital Stock.....	100,000 Shares.
“ “ issued.....	90,890 Shares.
“ “ on hand in Treasury 9,110 “ (9,000 subject to option.)	100,000 Shares.

## RECEIPTS.

Capital Stock.....	\$90,890.00
Bills Payable.....	54,799.19
Assessment No. 1.....	20,436.25
Gold Dust and Individual Contributions.....	14,859.79
	<hr/>
	\$180,985.23

## DISBURSEMENTS.

Purchase of Mining Property and Lease.....	\$80,000.00
Mining Machinery, Tools and Supplies.....	25,063.46
Freight and Duties.....	23,495.64
Labour.....	22,285.68
Transportation of Mechanics.....	904.65
General and Legal Expenses, Rent and Interest.....	25,565.31
Animal Account.....	1,597.10
Sundries.....	1,120.71
	<hr/>
	\$180,032.55

CASH ON HAND..... \$952.68

R. T. WARD.  
Secretary.

### In Favour of a Provincial Mining Association.

The following resolution was passed by the Fort Steele Mining Association at a recent meeting, and speaks for itself:

It is moved and seconded that the Secretary of the Fort Steele Mining Association be instructed to communicate with the editor of the B.C. MINING RECORD and all other newspapers of the province with a view towards some concerted action being taken in forming a Provincial Mining Association, and asking them to agitate the question.

H. H. McVITTIE,  
Assistant-Secretary.

A large number of individuals in different parts of the province having responded to our appeal to form a Provincial Mining Association, the work of organization will be proceeded with shortly.—Ed.

### The Slocan, Nelson and Ainsworth District, From W. A. Carlyle's Report.

## THE SLOCAN.

THE Slocan, according to the number of its shipping mines and the amount and value of the ore sold, now ranks as the most productive mining district in the province, and in point of importance is not surpassed by any other.

In an area of fifteen by twenty-five miles, there have been discovered many veins of high grade silver-lead ore, which are being developed with great vigour and success, and among the mining men is every feeling of confidence and hopefulness. This winter nearly fifty of these properties are shipping high grade ore that yields very profitable returns, and a large number of other claims are being opened up.

So far but comparatively little imported capital has been expended here, as in the case of nearly every mine now established, sufficient money has been realized from ore extracted during development to pay for more extensive workings, new buildings, mills, trails, roads, and also dividends, but more or less capital will be required to properly open up many other claims on which the veins exist, but are not so easily accessible as those first discovered. But as most of these veins are found along the steep mountain sides and can be worked by tunnels, and the cost of mining is low, requiring little or no machinery, capital will be necessary mostly when tramways and concentrators are to be built, or in some cases for hoisting plants and pumps when tunnel sites may not be available.

Many of these mines are located near the summits of the high precipitous mountains at an elevation of 5,500 to 6,500 feet above sea level where erosion has cleared away nearly all debris from the veins, but lower down on the mountain sides and in the valleys, are being found other veins or those discovered first much higher up, to the highest of which now run good trails or wagon roads or wire rope tramways. The snow that lies deep on these summits during the winter is in nowise detrimental to mining operations, as most work is done after its fall, when the ore can be dragged down the smooth snow trails in rawhides in larger loads and at lower prices than are possible in the summer time, but the tracks of snow slides must be carefully avoided.

During 1896, 18,215 tons of ore yielded 2,141,088 ounces of silver and 19,210,666 pounds of lead, or an average of 117.4 ounces of silver per ton and 52.7 per cent. lead which would have a net profit of about \$75 per ton, while many carloads were shipped that yielded from 300 to 400 ounces of silver per ton.

The Slocan Star has of course the largest shute of high grade ore yet found in this district, and we are kindly permitted to state that from 11,529 tons of ore and concentrates sold during the last three years 912,600 ounces of silver and 13,482,000 pounds of lead have been paid for by the smelters, and of these amounts 7,000 tons yielded 600,000 ounces of silver and 9,000,000 pounds of lead during the past season of 1896.

Many of the veins are small, varying from two or three inches in width to twenty to thirty inches

of solid ore, but the high value of silver at present makes this ore very profitable together with the low cost of breaking ground. The small Reco-Good-enough vein, the width of which is measured in inches, is probably the richest vein yet mined, as from the smelter returns of about 600 tons, the average was 407 ounces of silver per ton and 42 per cent. lead. The high percentage of lead makes this ore a very desirable one for the smelters, and the lead contents are usually sufficient to pay the freight and treatment charges, and the duty charged on the lead.

At no time in the history of this district have so many mines had high grade ore exposed, and of such mines can be named among others the Slocan Star, Ruth, Wonderful, Monitor, Idaho, Alamo, Cumberland, Ivanhoe, Queen Bess, Wild Goose, Payne Group, Slocan Boy, Washington, R. E. Lee, Last Chance, Noble Five Group, Reco, Good-enough, Blue Bird, Antoine, Surprise, Rambler, Best, Dardanelles, Northern Belle, Whitewater, Wellington, Charleston, Lucky Jim, London Hill, Reed and Tenderfoot, Fisher Maiden, Thompson Group, Galena Farm, Enterprise, Neepawa, Bondholder, Two Friends, Howard Fraction.

NELSON.

The Silver King silver-copper mine of the Hall Mines Co., Ltd., the Poorman gold (quartz) mine, and some small placer workings, have yielded all the production credited to this district, but other mines will be added ere long to this list. Since the completion of the smelter at Nelson there has been greatly increased activity at the mine of this company.

The Silver King mine has now shipped 31,000 tons of ore that yielded 800,000 ounces of silver and 2,500,000 pounds of copper, and the development of the property is rapidly being pushed, so as to permit of a greatly increased output, while the smelter is being increased so as to undertake the treatment of all classes of ore as may be bought in the market.

The Poorman gold mine has given up about \$100,000 from its quartz ledge, and other properties in this locality that have similar veins are now under bond and will be worked.

The new district, known as the Salmon River Country, lying south of Nelson to the boundary, and traversed by the Nelson & Fort Sheppard R.R. was not visited, but during the past year many claims were staked off on gold and silver leads on the ridges, between which run the tributaries of this river. This winter considerable work is being done here, and during the coming season much greater interest will be shown in these veins, in which it is stated, ore similar to that of Rossland, and also gold-silver quartz with galena and other sulphides have been discovered, assays of which have given high values. (See short description below by Mr. McConnell.)

AINSWORTH.

The output from Ainsworth for 1896 was much lowered by the cessation early in the year of mining on the Blue Bell, in which, it is reported, the ore has become rather low grade for present conditions, but in several of the other mines west of the town of Ainsworth, considerable progress was made.

The Skyline, Number One, Blue Bell, High-

lander, Little Phil, Mile Point, Neosho, Sunlight, and Tariff, shipped ore, much of which was the silvery "dry ore" and the remainder galena, which does not carry as much silver as the Slocan veins, but averages thirty to forty ounces in the solid ore.

This district suffered especially in the decline of silver prices, but now vigorous prospecting is being done once more on both sides of the lake, and new mining enterprises are being inaugurated. The town of Kaslo, the eastern entrance to the Slocan, is growing rapidly, and steamers run daily to Nelson to connect with the railroads, while the only public sampling mill in Kootenay is here located.

SLOCAN.

	1895.		1896.	
	AMOUNT.	VALUE.	AMOUNT.	VALUE.
Gold, ozs.....	6	\$ 120	152	\$ 3,040
Silver, ozs.....	1,137,040	742,487	2,141,088	1,434,529
Lead, lbs.....	9,751,464	315,070	19,210,666	572,479
<b>Total value.....</b>		<b>\$1,057,677</b>		<b>\$2,010,048</b>

	1895.	1896.
Total tonnage, Ore and Concentrates.....	9,649	18,215
" number of Mines that shipped.....	30	42
" Miners at work.....		1,000

The number of mines shipping may be increased by adding some that have sent out very small lots of ore.

NELSON.

	1895.		1896.	
	AMOUNT.	VALUE.	AMOUNT.	VALUE.
Gold, ozs.....	1,275	\$25,500	511	\$ 10,220
Silver, ozs.....	49,750	32,487	631,960	423,413
Copper, lbs.....	112,420	5,621	2,237,921	111,896
<b>Total value.....</b>		<b>\$63,608</b>		<b>\$545,529</b>

	1895.	1896.
Total tonnage - tons.....	1,148	30,160
" number of Mines producing.....	5	4
" " Miners at work.....		350

AINSWORTH.

	1895.		1896.	
	AMOUNT.	VALUE.	AMOUNT.	VALUE.
Silver, ozs.....	263,030	\$171,759	187,279	\$125,489
Lead, lbs.....	6,724,000	217,185	2,151,000	64,100
<b>Total value.....</b>		<b>\$388,944</b>		<b>\$189,589</b>

	1895.	1896.
Total number of Mines shipping.....	8	9
Tonnage cannot be stated, as the number of tons mined at the Blue Bell Mine was not ascertained, but from the other Mines in the district there were shipped.....	2,208	1,664

Total number of miners at work, about 200.

The decrease in the amount and value of the ore shipped

during 1896 is mostly due to the suspension of work on the Blue Bell.

AMOUNT OF ORE SHIPPED AS PER CUSTOMS RETURNS.

SLOCAN.				
YEAR.	TONS.	SILVER, OZS.	LEAD, LBS.	GROSS VALUE.
1894 .....	4,417	613,926	5,623,621	\$ 572,350
1895 .....	8,828	1,122,705	9,554,079	942,094
1896 .....	17,975	2,316,561	17,778,384	2,085,445
<b>Totals .....</b>	<b>31,220</b>	<b>4,053,192</b>	<b>32,956,084</b>	<b>\$3,599,889</b>

NELSON.				
YEAR.	TONS.	SILVER, OZS.	LEAD, LBS.	GROSS VALUE.
1894 .....	810	95,083	218,351	\$ 68,823
1895 .....	348	49,759	112,420	38,120
1896 .....	2,248	586,143	2,010,294	493,225
<b>Totals .....</b>	<b>3,406</b>	<b>730,985</b>	<b>2,341,165</b>	<b>\$600,168</b>

AINSWORTH.				
YEAR.	TONS.	SILVER, OZS.	LEAD, LBS.	GROSS VALUE.
1894 .....	131	23,621	38,902	\$ 16,165
1895 .....	13,938	261,904	6,612,025	384,677
1896 .....	5,408	203,897	2,476,972	210,918
<b>Totals .....</b>	<b>19,477</b>	<b>489,422</b>	<b>9,127,899</b>	<b>\$611,760</b>

VALUE OF ORES.

SLOCAN.

While most of the veins are not wide, the richness of their ores greatly compensates, as may be seen from the lead and silver values as per smelter returns from a few of the mines, as :

Slocan Star.....	80 to 95	ozs. silver per ton,	70 to 75	p.c. lead
Reco .....	83 to 730	"	19 to 67	"
Goodenough.....	167 to 507	"	15 to 67	"
Noble Five .....	62 to 543	"	30 to 75	"
Last Chance.....	135 to 238	"	35 to 78	"
Wonderful .....	113 to 133	"	70 to 76	"
Ruth .....	40 to 125	"	15 to 73	"
Monitor .....	142 to 367	"	32 to 57	"
Wellington .....	125 to 328	"	10 to 55	"
Whitewater .....	72 to 328	"	10 to 65	"
Dardanelles .....	149 to 470	"	15 to 55	"
Enterprise .....	155 to 180	"	18 to 30	"
Two Friends.....	248 to 380	"	38 to 52	"

SILVER KING MINE, NELSON.

The average value of the ore: From the returns the average silver and copper contents yielded per ton, as calculated from the product obtained in smelting nearly 30,000 tons of the Silver King ore, are nearly 21 ounces of silver per ton, and 3.7 per cent. copper.

Rossland Notes.

THE events of the last few weeks have not thrown much light on the notorious War Eagle transaction. The shareholders' meeting was held in Spokane; there was a great deal of talk beforehand of strong opposition to the sale of the property; and the names of several parties were men-

tioned who were in the city and were prepared to make *bona fide* offers of purchasing the mine at a price very much in advance of that given by the Gooderham syndicate. However, to use the words of a gentleman who was present at the meeting: "We made a hard fight, but the whole thing was cut and dried. No discussion upon their merits was made upon the different propositions, and no attempt by the majority of the management to explain or justify their position. The transaction cannot fail to be a serious blow to your camp and to the credit of this town (*i.e.*, Spokane)."

It is always well to hear both sides of a question, but unfortunately up to date no explanation of this affair has been given by the fortunate majority stockholders. Mr. T. Clarke refused, according to the newspapers, to speak about the matter at all, while Mr. L. A. Finch delivered himself of the oracular utterance that the shareholders would see clearly in a few weeks (or months) that all had been done for the best.

Unfortunately this prophetic assurance has not done much to allay the prevailing discontent, though possibly in the far distant future the malcontents will deplore their present ungrateful murmurings. By way of healing the wound a pleasantly worded letter has been sent to the shareholders by the secretary of the company informing them that "if they so desire" they can send in their stock and receive in return for it payment at the rate of \$1.40 per share.

Imagine the feelings of an unfortunate gentleman who, having bought War Eagle shares at (let us suppose) \$1.85 per share, is now politely requested to sell them "if he so desires" at \$1.40 per share. Possibly he might see a ray of hope in the phrase selected by the secretary, which might be thought to hint at an alternative. But alas, on further enquiry he would learn that the hope was a delusive one, and that in fact if he did not like to take the \$1.40 he wouldn't get anything at all. This is the bald truth, but how much better it is to conceal unpleasant facts under conciliatory language.

It will be remembered of course that the new War Eagle Consolidated Company has acquired not only the War Eagle claim but several other interests, among them the Crown Point. The shareholders in the latter were informed by a letter signed by Messrs. Gooderham & Blackstock and dated January 25th that they would have the privilege of taking shares in the new organization at the rate of two of the old Crown Point for one of the new. Acceptance by return mail was made a condition of the offer—rather sharp work when the size of the North American continent and the slowness of the postal service in winter is considered. However, not very much harm was done, as the eastern brokers, availing themselves of the telegraph lines, which of course transmit messages very much more quickly than the mail cars, cleaned up pretty nearly all the Crown Point stock in this market at from forty to fifty cents per share nearly a week before the Gooderham-Blackstock letter arrived. The War Eagle Consolidated stock now stands at \$1.15, so that there was a nice little profit in the transaction. And the only thing to be said is that probably some of us regret that the Crown Point authorities did not think of using

the telegraph lines instead of the mail service. However, telegrams are expensive luxuries and it is well to know that our mining companies are managed economically.

It is impossible to say whether or not we have seen the last act in the play of the War Eagle sale. Rumours of legal proceedings are heard and a letter has been written, signed by a number of the old shareholders requesting that a full statement of the affairs of the now defunct War Eagle company from the outset up till now be prepared. But the meaning of this move has yet to be learned. Probably the whole affair will shortly be forgotten and none but the favoured few will know the rights of this somewhat remarkable and not very reassuring affair.

Deals in mining stocks have been fairly numerous and general during the last month. The preference for low priced shares continues to be a marked feature of the situation, possibly because investors argue by the light of recent history that as long as shares are very cheap the big shareholders won't be tempted to sell, and there will thus be a chance for the small men to make a little money.

Iron Mask stock has gone all to pieces and seems unable to rally in spite of the strong feeling of confidence which the public should feel in a property, some of the largest shareholders in which were also heavily interested in the late War Eagle company.

Of the claims near Rossland the Monita has probably attracted most attention this month. If for no other reason its position should entitle it to special notice as it lies immediately north-west of the War Eagle, and it is confidently asserted that the War Eagle lead runs into the Monita ground. What is better still, it is an undoubted fact that a good lode of ore of high value has been opened up on the claim, in consequence of which offers are said to have been made from more than one quarter to buy a controlling interest in the claim. The latest of these offers has been made by Mr. J. F. Wardner, who is reported to hold an option on a large block of shares at twenty-four cents per share. The present price of the stock is probably about nineteen cents, but there seems to have been some difference of opinion between the Spokane Stock Exchange and the Rossland *Miner* as to the correct quotation, the latter paper asserting that twenty cents is the proper price, while the former name seventeen and a-half cents. Possibly this divergence may arise from some such cause as that a limited number of Monita shares may still be for sale at the lower price, while the *Miner* quotation may nevertheless be a more representative one. One of the difficulties as to the prices of our stocks has always been that while one man holds his shares at twenty cents another is willing to sell his at seventeen. But as by degrees the original promoters sell off at a profit the shares they have obtained at "rock bottom" prices, it may be hoped that this difficulty will more or less solve itself. As to the utility and prospects of success of the Spokane Stock Exchange opinions seem to differ. If the brokers in Spokane are influential enough to establish and maintain regular prices in the best of our mining shares, there is every reason to think

that the Exchange will be most useful. If their business connections are not powerful and wide-reaching enough to accomplish this they certainly cannot do much good, and they may do much harm. In the meantime it might be well to give them a fair trial in order to give them a chance of establishing themselves. Criticisms of their doings and misdoings have already been numerous, which was, of course, only to be expected. But something more than a fair spirit of criticism seems to have been at the bottom of some of the attacks which have been made on them. But possibly it may prove that the more furious the attack the better the advertisement. For our part, if they will deal impartially with all stocks without fear or favour we wish them prosperity; if they won't or can't do this, the sooner they close their doors the better.

Within the last month machine drills have been put to work on the new Colonna tunnel operated from the Monte Cristo plant, which is at a point about equal distance from both claims. Machinery is also to be installed on the Sunset No. 2, a claim which, as far as we remember, has not yet been mentioned in these monthly letters. It lies about one mile south-west of Rossland on Deer Park Mountain, and is being worked under bond from the Kamloops Mining & Development Co. (Rossland), by the Canadian Gold Fields Syndicate. The prospects of this property seem to be really first-rate, and we shall hope to devote some further attention to it in our next issue. For the present it is enough to say that the shaft is in high grade ore running about \$40 per ton.

Reports continue to come to hand from all quarters of claims on which successful results are being obtained by development work. The Double Standard claim, for instance, lying just across the international boundary on the Northport Road, is being worked with very encouraging results, high assays having been obtained from a strong body of ore. It is more than likely that a great deal of attention will be paid to this quarter of the camp by investors next summer.

Special mention may also perhaps be made of the Parker or Dundee groups in the neighbourhood of the Salmon River, where a big strike has recently been reported.

#### *Progress at Trail B.C.*

ALTHOUGH mid-winter, this little city is a perfect bee-hive of industry, caused by the successful operation of industries which are owned and managed by Trail's best friend, Mr. F. Aug. Heinze.

The smelter has now been running for eight or nine months and has successfully treated more than 50,000 tons of Rossland ores. During the first three months most of the work was experimental and required the development of a new system which would smelt Rossland ores without the assistance of ores of other character as is used in all smelters which handle any of the Trail Creek product. This problem was successfully solved and Mr. Heinze at once increased the blast furnace capacity alone to 250 tons per day, while the O'Hara and reverberatory furnaces continue to perform their proper functions as before.

The smelter capacity now being equal to the demands from Rossland mines, Mr. Heinze turned his attention toward lessening the expense connected with the large matte shipments and after a series of experiments in refining the matte into pure copper, he decided that although it required an investment of half a million of money that it would be feasible and profitable to erect a large refinery, and in a few days it will be in operation.

Mr. Heinze next turned his attention to the problem of power for the tremendous plant which was now requiring 100 cords of wood per day, which he succeeded in solving by harnessing the water of Trail, Stony and Rock Creeks. A flume six miles in length along the mountain side was constructed and by this means the water is delivered into the very heart of Trail townsite and there made to run one 260-horse power electric generator. This power is transmitted to the big smelter where all the vast amount of machinery is now run by electricity without the use of steam in any way. In addition to this electric power generator he established an electric light plant not only for the smelter and railway headquarters, but also for the town of Trail, the plant consisting altogether of 1,000 incandescent lamps and fifteen arc lights.

Provision having now been made for Rossland ores, Mr. Heinze's attention was next directed to the silver-lead ores of the Slocan district which at present are mostly shipped to the United States for treatment, and after the transportation of these ores was provided for by the construction (now proceeding) of the third division of the Columbia & Western Railway, he at once started the construction of the silver-lead ore addition to the smelter, the machinery and foreign material required in the construction of the same being now on the ground. The large building in which the silver ore will be treated is now in course of erection and will be completed in time to have the plant in working order by May 1st, 1897.

The Columbia & Western Railway which is one of Mr. Heinze's most important enterprises, has its headquarters at Trail, so that its officers may receive the benefit of his personal attention. The construction of this railroad started January 1st, 1896, and was completed on June 1st of the same year. It is a narrow-gauge road and fourteen miles in length, extending from Trail to Rossland, and its peculiar features are the sharp curvatures, steep grades and switch-back tracks along its line. From eight to sixteen trains per day have been run over this road since its completion without a single accident to property or person, a record that has been equalled by few railroads and excelled by none.

The general offices and shops are located on Smelter Hill at Trail. The former consist of a well constructed and elegantly furnished two-story building where all business connected with the railway is transacted. The shops are located between the general offices and the smelter, and here all repairs to rolling stock of the road are made. Mr. Heinze recently decided that freight cars could be built here as cheaply and more substantially than elsewhere, and already three new box cars have been turned out and three more are under

way. Having been successful with these, he has started to build twenty ore dump cars, the material for which is now either delivered or on the way.

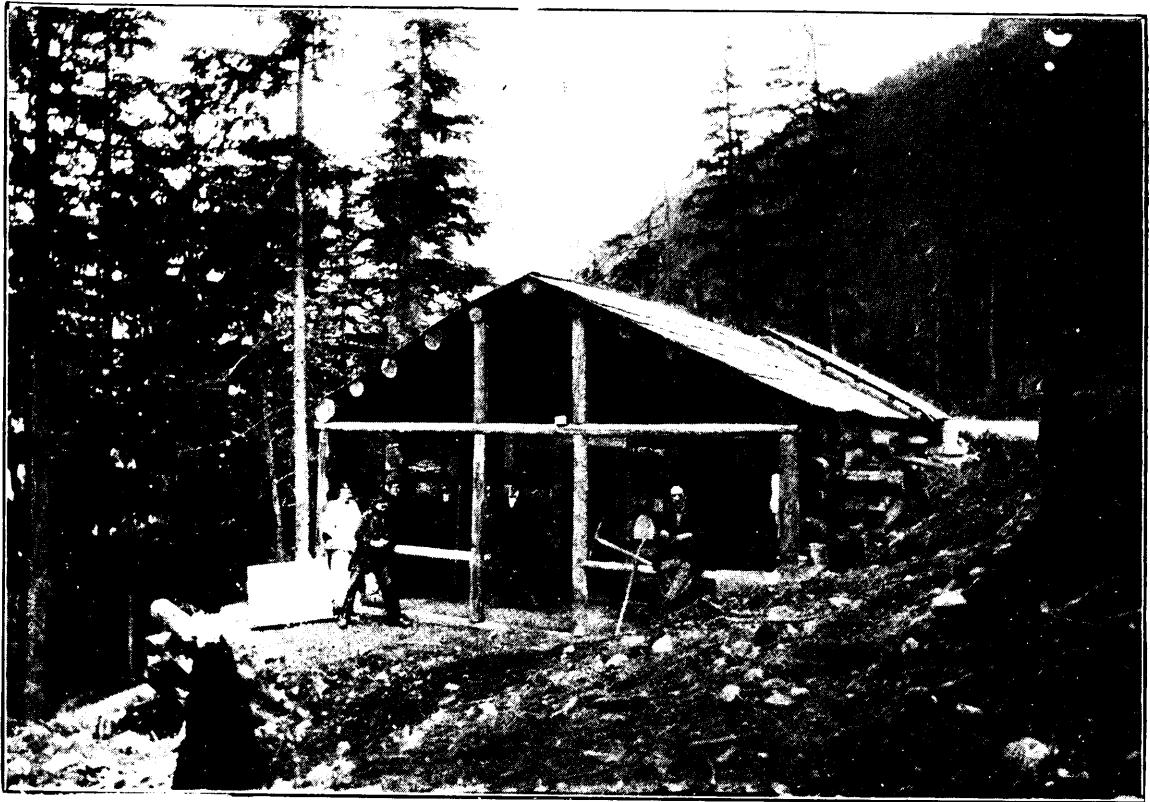
Referring again to the treatment of Slocan ores at Trail, Mr. Heinze found it necessary first to provide cheap and rapid transportation from the Slocan district to Trail, and this he is accomplishing by the construction of the third division of the Columbia & Western Railway to Robson, where the ore will be delivered by the C.P.R. either *via* Nelson or Nakusp. The Trail-Robson line is a standard gauge road twenty-two miles in length and is being built on the west bank of the Columbia River. Work on it is now being rushed so as to have it finished by May 1st. Slocan ores will then be transported without transfer, and a daily passenger service with the C.P.R. main line established, so that passengers arriving at Revelstoke in the morning will be able to reach Rossland the same evening.

This short line of railroad will be a valuable connection and is the natural extension of the proposed Crow's Nest Pass Railway to the mining districts of West Kootenay since in addition to the Trail Creek district it taps the Boundary district, Kettle River country, Rock Creek Camp, and finally connects with the Coast cities *via* the steamers on Okanagan Lake and the C.P.R.

Mr. Heinze has given a bond of \$50,000 to the Provincial Government to be forfeited should he fail to construct this entire road within the forty-eight months next ensuing, which is a substantial guarantee that the railway will be constructed in the time mentioned, although at this time a charter from the Dominion Government has not been secured. Mr. Heinze has, however, advertised his intention to apply to the Dominion Government for a charter for the road, and in view of his past energies and success in bringing about rapid development in the Trail district the Government will doubtless render him assistance in his present enterprise which he has already proven himself worthy to receive. The undertaking in which Mr. Heinze is now engaged and which deserves substantial recognition at the hands of the Government, may or may not be profitable to himself, but it is surely of vital importance to the Trail Creek district, and materially assists in the development of British Columbia, to which the entire Dominion points with pride.

#### *Another Extravagant English Prospectus.*

**W**E have before us the prospectus of the Gold Fields of British Columbia, Limited, a company lately incorporated in England, with a capital of £600,000. Of this amount £200,000 is to be devoted to carrying on the affairs of the company and £400,000 is to be paid to the vendors of certain properties. The prospectus is flowery in the extreme, over-drawn and, in our opinion, misleading in a number of the statements it contains. Amongst the directors are two Earls and two Colonels, and on the advisory board for Canada are three well-known and highly respected citizens of Victoria, B.C. In fact the list of directors, solicitors, bankers, brokers, mining engineers, auditors, assayers,



WONDERFUL MINE, SANDON, B.C.  
(From photograph by Edwards Bros., Vancouver.)



STOPE—RUTH MINE, SANDON, B.C.  
(From photograph by Edwards Bros., Vancouver)

etc., which appears on the prospectus presents a formidable array of talent and influence. Would that it had been put to some better use.

The names given as being connected with this scheme are sufficient one would think, to vouch for its respectability and the reliability of its prospectus. Yet on looking over the document before us we can form but one opinion—that it is an attempt to induce people to invest money in an enterprise which, to say the least of it, is somewhat of an uncertain quantity at the present moment. In fact the vendors are to be paid £400,000 or two million dollars for a lot of properties the value of which is of very doubtful character indeed as compared with the amount to be paid to the vendors.

We observe the prospectus—with apparent candour—states that the vendors are selling at a profit. The amount of that profit is, however, left to the imagination of the readers, although we venture the opinion that if known it would represent a very considerable sum.

Now let us see the nature of the properties upon which two million dollars of the capital of this company are to be expended:

Nineteen mineral claims at Albert Canyon with little development work done upon them. It is true a Mr. Perry Leake, of Revelstoke, by a method of reasoning endeavours to show that these claims may pay an annual profit of £509,400 or over two million and a half dollars per annum. We have a great opinion of the paying qualities of our mines, but in that respect we now take off our hats to Mr. Perry Leake.

Following the Albert Canyon property are six hundred and forty acres of auriferous gravel in the Chrome Valley—value conjectural.

Next come the Channe Mining Company's properties, on which some development work has been done. It would be interesting to know, however, the exact price agreed to be paid by the vendors for these claims. It might give us an idea of the amount of their profit on the whole two millions.

Then comes a half interest (why only a half interest?) in three claims near Rossland, and a half interest in seven other claims in the northern division of West Kootenay about which little information is given in the prospectus. We would suggest to any parties who may have been induced to invest in the Gold Fields Company to write to Rossland for an unbiased and independent present valuation of the claims located there.

This company also propose to go into the townsite business on Thurlow Island and Albert Canyon, the profitable nature of which is altogether problematical—very much so indeed. We would like to know, however, how much of the two million dollars to be paid to the vendors is represented by the actual present value of these two townsites.

The whole scheme has every appearance of being an attempt to work off at most extravagant figures a lot of mining property and real estate on the British investing public. The columns of the *British Columbia Mining Record* are open to the promoters of the Gold Fields Company to explain their true position in the matter if they wish to do so.

We want to see British capital invested in our mines, but we object to the mineral wealth of the province being made a scapegoat by company pro-

moters to put money in their own pockets at the expense of the English people.

Space forbids our giving more than passing notice to this subject, but we will return to it in our April number. We may, however, speaking in a general way, point out to men of position and influence who allow their names to be used on prospectuses without proper investigation that by so doing they run the risk not only of being the indirect means of inflicting serious injury to innocent investors, but of finding themselves, in some cases, made parties to very unsavory transactions.

### *Taxing the Mining Industry.*

WE trust that the Government and Legislature will go slow in the direction of placing any further burden on the mining industry of this province. The more we think of it the more we are opposed to the scale of fees recommended by the Victoria Board of Trade to be exacted from mining companies. As for a tax on the capitalization of mining incorporations, we are against it altogether. Both ideas would, if carried out, mean discrimination against the mining industry, and would therefore be unfair. If we wish to keep capital from coming to the country we cannot shut it out more effectually than by unduly taxing it. An export duty on ore, which we understand was contemplated in some quarters, would be, in our opinion, a stupid proposition to make, because such a step would not only check the development of our mines at the present time, but ultimately it would place mine owners at the mercy of the smelter people. If we want to encourage smelters in our midst, bonus them but give them no power over the miners.

If we want to check over-capitalization and the formation of fake companies, compel the promoters in the first instance to put up a substantial proportion of the capital stock before granting letters of incorporation, and afterwards compel each company to publish a full statement of its affairs every six months. An ordeal of this nature, if strictly enforced, would soon weed out all companies with nothing behind them.

### *East Kootenay Notes.*

THE Contact mineral claim on Perry Creek has been sold to the Washington Mining & Leasing Company, of Spokane, Wash., U.S.A.

The Midnight mineral claim, adjoining the North Star, has been sold to a Montreal firm.

A group of claims on the North Star Hill has been sold to Vancouver and Victoria parties for cash.

There is not much actual mining in progress this winter. The North Star have some men employed in getting out carbonates and teams engaged in hauling ore to their landing on Kootenay River. Small forces are engaged on the Moyie, belonging to F. Houghton & Co., and the St. Eugene belonging to Messrs. Cronin & Finch, situated on Moyie Lake. Also on the Dibble group some claims on Perry Creek, and some in the neighbourhood of the North Star and Sullivan.

The second payment has been made on the Sullivan group.



### British Columbia Mining Association.

THE initiative steps taken by the *Record* toward organizing a British Columbia Mining Association have been much more successful than we anticipated. The idea has taken root, and already about three hundred names of mining men and others interested in mines have been sent in as desirous of becoming members. When the number reaches five hundred the work of organization will commence, and before spring ends we will have a powerful and useful association fully formed and in working order which, we feel sure, will be of much benefit to the mining industry of the province.

### Dragging Mining Investments in the Mud.

MUCH has been done by unscrupulous company promoters and stock speculators to injure the character of mining investments in this province, but an instance which came to our knowledge the other day caps the climax. Some parties having selected one or two claims near Nelson proceeded at once to incorporate a company without having developed the property to any extent in order to ascertain whether it is of any real value. What they were after was money, and they preferred digging it from the pockets of an over-confiding public rather than out of the rock. So they offered their shares on the market at one cent and a-half apiece, the understanding being, however, that the buyer should invest a sum of not less than \$50 at a time. This indeed is dragging mining investments in the mud with a vengeance. When we get down to selling shares of a mining company at one cent and a-half each when the par value is one dollar people at a distance must indeed think that we are hard up for money.

### Dr. Selwyn's Remarks at Montreal.

DR. SELWYN'S remarks in Montreal to the effect that British Columbia's production of gold is likely to show a decrease in the future as compared with the past, notwithstanding the fact that modern machinery will alter the situation for the better in the mining of the precious metal, is, to say the least of it, an extraordinary statement in the face of recent experience in this province. In round numbers the mineral production of British Columbia during the past thirty years was \$61,500,000, or a little over \$2,000,000 per annum. Last year—1896—this province produced over \$3,000,000, and at the very lowest estimate 1897 will see this sum increased to \$5,000,000. We would recommend parties who may be inclined to place any credence in the words of Dr. Selwyn to send for the reports of Mr. Carlyle, the Provincial Mineralogist, on Trail Creek and the Sloean districts. Mr. Carlyle is one of the most reliable authorities in Canada, and taking his opinion of the mineral wealth of this province as an index of our future welfare, we may well be satisfied with the prospects ahead of us.

We are glad to note that Dr. Dawson, the director of the Geological Survey, has taken an early opportunity to disagree with Dr. Selwyn's pessimistic remarks. We think, however, that it is the duty of both the Dominion and Provincial Govern-

ments to at once take steps to correct the false impression which Dr. Selwyn's words will doubtless create in the minds of many who have been viewing Canada, especially British Columbia, with favour as a field for profitable investment.

A statement of facts relating to the past year will sufficiently prove that Dr. Selwyn's theoretical ideas are pure nonsense when considered in the light of practical experience.

### The Output of British Columbia Mines.

The following are extracts from a return to the Legislature of the province, made by Hon. Col. Jas. Baker, Minister of Mines, which will be of interest to our readers :

TABLE I.

TOTAL PRODUCTION FOR ALL YEARS.

Gold, placer.....	\$ 57,704,855
Gold, lode.....	2,177,869
Silver.....	4,028,224
Lead.....	1,606,427
Copper.....	254,802
Coal and Coke.....	33,934,427
Building stone, bricks, etc.....	1,200,000
Other metals.....	25,000
	<hr/>
	\$100,931,604

The next table shows the rapid increase in production during the last seven years, the increase for 1891 over 1890 being due to the larger export of coal, the output of which for that year of 1,000,000 tons, being the largest ever reached by our collieries. In the year 1892 the influence of the production of the lode mines began to be felt, and since then the very marked increase in production has been carried by the quickly growing value of the gold, silver, lead and copper produced.

TABLE II.

PRODUCTION FOR EACH YEAR FROM 1890 TO 1896 (INCLUSIVE).

YEAR.	AMOUNT.
1890.....	\$2,608,608
1891.....	3,546,702
1892.....	3,017,971
1893.....	3,588,413
1894.....	4,225,717
1895.....	5,655,302
1896.....	7,146,425

Table III. gives a detailed statement of the amount and value of the different mine products for 1895 and 1896, but it has as yet been impossible to collect statistics concerning the amount of building stone, brick, lime, fire-clay, tiles, etc., hence these tables do not contain any particulars this year about the mining of the economical materials, which, of course, should be here included.

However the increase in the value of the precious metals produced, and the baser metals, especially of lead, is marked, and the total increase for 1896 over 1895, very gratifying, the total production of the mines, other than coal, having increased from \$2,834,000 to \$4,816,000.

TABLE III.

AMOUNT AND VALUE OF MATERIALS PRODUCED 1895 AND 1896.

	Customary Measures.	1895.		1896.	
		Quantity	Value	Quantity	Value
Gold, Placer.....	Oz	24,084	\$ 481,683	27,201	\$ 544,026
“ Quartz.....	Oz	39,264	785,271	62,259	1,244,180
Silver.....	Oz	1,496,522	977,229	3,135,343	2,100,689
Copper.....	Lbs	952,840	47,642	3,818,556	190,926
Lead.....	Lbs	16,475,464	532,255	24,199,977	721,384
Coal.....	Tns	939,654	2,818,962	846,235	2,327,145
Coke.....	Tns	452	2,260	615	3,075
Other materials.....			10,000		15,000
			<hr/>		<hr/>
			\$5,655,302		\$7,146,425



TABLE IV.  
PRODUCTION OF METALS PER DISTRICT.

NAME.	DIVISIONS.		DISTRICTS.	
	1895.	1896.	1895.	1896.
CARIBOO			\$ 282,400	\$ 384,050
Barkerville Division	\$ 81,000	\$ 82,900		
Lightning Creek	40,700	53,000		
Quesnelmouth	18,200	51,100		
Keithley Creek	142,500	197,050		
CASSIAR			22,575	21,000
KOOTENAY, EAST			17,575	154,427
KOOTENAY, WEST			2,223,206	4,002,735
Ainsworth Division	388,944	189,589		
Nelson	63,608	545,529		
Slocan	1,057,677	2,010,048		
Trail Creek	702,457	1,243,360		
Other parts	10,520	14,209		
LILLOOET			40,663	33,665
YALE			241,581	206,078
Osoyoos Division	147,731	131,220		
Similkameen	41,650	9,000		
Yale	48,400	65,108		
OTHER DISTRICTS			10,000	15,000
	\$2743,387	\$4592,115	\$2838,000	\$4816,955

PLACER GOLD.

Table V. gives the yearly production of placer gold as determined by the returns sent in by the banks and express companies of gold sold to the mints, and from returns sent in by the Gold Commissioners and Mining Recorders. To these yearly amounts one-third was added up to the year 1878, and from then to 1895, one-fifth, which proportion was considered to represent approximately, the amount of gold sold of which there was no record.

The gold output is now beginning to steadily rise as the operations of the large hydraulic mining companies in Cariboo begin to assume such a scale, that with larger water supplies and the mines more opened out for work, a much larger amount of ground can be washed.

This placer gold contains from ten to twenty-five per cent. silver, but the silver value has not been separated from the totals.

TABLE V.

YIELD OF PLACER GOLD PER YEAR TO DATE.

1858	\$ 705,000	1878	\$1,275,204
1859	1,615,070	1879	1,290,058
1860	2,228,543	1880	1,013,827
1861	2,666,118	1881	1,046,737
1862	2,656,903	1882	954,085
1863	3,913,563	1883	794,252
1864	3,735,850	1884	736,165
1865	3,491,205	1885	713,738
1866	2,662,106	1886	903,651
1867	2,480,868	1887	693,709
1868	3,372,972	1888	616,731
1869	1,774,978	1889	588,923
1870	1,336,956	1890	490,435
1871	1,799,440	1891	429,811
1872	1,610,972	1892	399,526
1873	1,305,749	1893	356,131
1874	1,844,618	1894	405,516
1875	2,474,004	1895	481,683
1876	1,786,648	1896	544,026
1877	1,608,182		
			\$57,704,855

PRODUCTION OF LODE MINING.

The next table shows very clearly the fact that lode mining in this province has just fairly begun, and that the progress now being made, is decided and very satisfactory.

The gold production of course consists mostly of the output of Rossland mines as per smelter returns, but there are added the gold saved by amalgamation in the Osoyoos District, as at Camp McKinney, in the Nelson District as at the Poorman Mine, and the product of small lots of gold ore sent out to the smelters from other parts.

Some silver ore is known to have been sold prior to 1887, but no record has been obtained regarding these small sales.

TABLE VI.  
PRODUCTION OF LODE MINES.

YEAR.	GOLD.		SILVER.		LEAD.		COPPER.		TOTAL VALUES.
	Oz.	Value.	Oz.	Value.	Pounds.	Value.	Pounds.	Value.	
1887	17,690	\$ 17,331	17,690	\$ 17,331					\$ 17,331
1888	79,780	79,000	79,780	79,000					79,000
1889	53,192	47,873	53,192	47,873					47,873
1890	70,427	73,948	70,427	73,948	113,000	5,805			79,753
1891	4,500	4,000	4,500	4,000	588,665	25,607			29,607
1892	77,160	66,935	77,160	66,935	1,768,420	72,505			139,440
1893	227,000	195,000	227,000	195,000	2,135,023	78,996			297,400
1894	746,879	470,219	746,879	470,219	5,662,523	169,875	324,680	16,234	781,342
1895	39,264	785,271	39,264	785,271	16,475,464	532,255	952,840	47,642	2,342,397
1896	62,259	1,244,180	62,259	1,244,180	3,135,343	2,100,689	24,199,977	190,926	4,257,179
Totals	108,945	\$ 2,177,869	5,907,993	\$ 4,028,224	50,943,072	\$ 1,606,427	5,096,076	\$ 254,802	\$ 8,067,322

Boundary Creek.

I VENTURED to predict in my last letter to the *Record* that the year 1897 would be a prosperous one for Boundary Creek, and notwithstanding that as a rule the winter months are not chosen by investors in prospects and mining claims as altogether the most suitable time in the year to purchase properties, already during the last few weeks some important transactions have been made. Towards the end of January the Hon. T. M. Daly, Senator Kirchoffer, Mr. A. Kelly (of the well-known firm of Brandon millers) and other Manitobans purchased a half interest in the Golden Crown for \$15,000 and bonded the Calumet for \$18,000. Both claims are situated in Wellington Camp and adjoin the famous Winnipeg, perhaps the most advertised prospect in the camp. The Golden Crown has a wonderful showing, the ledge being exposed in several places of open cuts. Two shafts have also been sunk on the property, one being down about fifty-five feet. From this shaft assays were obtained that ran as high as \$200 in gold. The ore is pyrrhotite and copper pyrites. The lode on the Calumet is fifty feet wide as shown by cross-cuts. A company to be called the Brandon & Golden Crown Mining & Milling Company is being organized to own and operate these claims.

Then in the same month the Monarch and Dandy claims in Greenwood Camp were bonded for \$22,500 to an English syndicate, and in February the British Columbia Prospecting Syndicate, of Vancouver, bonded the Crown Point and its two extensions on James Creek and a group of claims at Rock Creek for \$18,000.

The Crown Point is worthy a more than passing notice. Only located late last summer this claim is now considered to be one of the more promising prospects in the district. The ore is a coarse-grained galena running as high as 500 ounces in silver and 69 per cent. lead. The ledge is supposed to be nearly fifty feet wide, or rather ore is shown in the cross-cut for the whole of that distance. But further comment is unnecessary.

The Boundary Mines Company have taken up the bond on the No. 7 claim in Central Camp, after spending some \$8,000 in development work. A shaft sunk to a depth of 140 feet showed an averaging of about \$30 to the ton all the way, and recently some remarkably fine ore was struck while drifting on the foot wall from the bottom of the shaft, a distance of seventy-five feet. This company also made the other day a second payment on the Mother Lode in Deadwood camp. The Mother Lode without any exaggeration is a remarkable property. A tunnel was started from the time contract and after having been driven for twenty feet the ore body was struck; from thenceforward the men have been working continuously in ore, which has gradually improved in value, until now at a distance of 180 feet from the mouth of the tunnel it is of shipping grade. At the time of writing the porphyry hanging wall has not been reached, that is to say that the ledge on this claim at an approximate depth of eighty feet from the surface is 160 feet wide.

The British Columbia Prospecting Syndicate are employing twelve men on the Jewel, in Long Lake Camp. The results of development work have so far been entirely satisfactory, the shaft being now down about sixty feet in ore that assays up to \$300.

H. MORTIMER LAMB.

#### *Notes from Kaslo.*

**O**UR fair city has a bright future before it, and valuable mining properties in the vicinity are turning out to be more than mere prospects and claims. The city is no longer in the dark, as it possesses an electric light plant which Kasloites may well be proud of.

The waterworks are completed as regards a means against fire protection, and a volunteer fire brigade has been formed, which, after a little practice together, will be able to cope with any fires which may appear.

Merchants are feeling in good spirits, all having a pleasant smile on their faces, and looking for an exceptional good season's trade.

The sampling works are proving a grand success. They are crowded to their fullest capacity, and mine owners are coming out and giving the local industry every encouragement, which it well deserves. Miners receive cash for their ore, without having to wait thirty to sixty days for return,

often having to put up with unsatisfactory smelter returns.

The South Fork mining properties are all showing up wonderfully; there will be from two to four good shipping mines from this district in the next few months. The Montezuma mine on the creek called after its name, a tributary of the Kaslo Creek, is only eight miles from Kaslo. The owners have been working this property since August, 1895, and have over 500 tons of concentrating ore on the dump awaiting their new concentrator (capacity seventy tons per day) which they expect to build inside of the next sixty days, with a modern tramway to the mine. They have twenty-five tons of shipping ore ready for shipment, and have an average of eighteen feet ore body with eighteen inches to three feet of solid ore in sight, the latest assay giving an average of eighty ounces of silver to the ton, with sixty-five per cent lead. The property is owned by Seattle capitalists, C. L. Webb, G. H. Hughes, M. Mc. McMicking and L. L. Patrick, the latter gentleman having full charge of the management of the mine. There is some talk of stocking this property in the near future, which should be very valuable stock.

The Liberty group, owned by the Briggs Bros., on the South Fork and Kaslo Creek, has a fine showing. In the next few days a big deal is expected to go through, the Spokane Electric Railway Company being the expected parties. There are ten claims in the group. The Liberty Bell has the most development work done, having sixty tons sacked ready for shipment. The assay runs from eighty to one hundred ounces in silver and seventy per cent. lead on an average. This property is about nine miles from Kaslo, with abundance of timber and water in its midst.

The Gibson Mining & Milling Company, which has been recently stocked for \$650,000, only eleven miles from Kaslo, has a beautiful showing, and has shipped for export two carloads from the surface which gave returns from the smelter of seventy ounces silver and 65 per cent. lead. Several tons await to be rawhided when their trail is in good condition, which will be within the next couple of weeks. The Government has turned a deaf ear to the calls for a wagon road of twelve miles, which would not cost more than \$600 per mile, there being a good trail which could be easily converted into a good wagon road. It is only a matter of a few months when the South Fork and Kaslo Creek will be a mining centre for shippers.

ELMA.

#### *Noble Jim Hemsworth.*

**W**E have heard of few cases of heroism more deserving of recognition than that of Jim Hemsworth who lately at the risk of his own life saved two of his companions from a horrible death. We hope the Government will not overlook this man's noble act of self-sacrifice, and trust that he will receive some suitable recognition of his bravery. It seems that two miners were working in the Young American 100-foot shaft at Rossland. They had filled the iron bucket with ore, and it was within twenty feet of the surface, with Hemsworth turning the crank, when it broke at the elbow and knocked him down. The cogs

failed to hold the load, and the bucket was rapidly descending on the heads of the unconscious miners, when Hemsworth threw himself on the reel and blocked the machinery by thrusting his arm in the wheels. It was horribly lacerated and amputation may be necessary, but the miners in the shaft were saved. The foreman blocked the wheel and released Hemsworth's arm in a few moments. When asked if he was much hurt, he replied: "D—the difference, so long as I saved the boys."

#### *New Northern Pacific Folder.*

THE Northern Pacific has issued a new folder which is not only most attractive in appearance but also contains a great deal of valuable information. Parties interested in the Kootenay should send for one, especially as it contains a map which will prove invaluable.

#### *Notes.*

IN the advertisement of the Fried Krupp Grusonwerk, which appears on page 3, a printer's error occurs in the name of the Montreal agents. It is made to appear Jas. W. Pike & Co. It should read Jas. W. Pyke & Co.

We observe that Mr. Geo. D. Scott is establishing his head office in Victoria. Mr. Scott being largely interested in Vancouver Island mines as well as those on the mainland, has taken the above step to enable him the better to look after his interests on both sides of the ferry. Victoria will hail with pleasure the coming of so enterprising a citizen as Mr. Scott has always proved himself to be wherever located.

Mr. W. Meadows has just issued a very complete map of the Slovan which parties interested should send for. His address is Kaslo, and the price of the map is \$1.

#### *The Boundary Creek Times.*

THE Boundary Creek Times, published in Greenwood City, is the first local mining paper in this province to come out regularly as an illustrated paper. We congratulate our contemporary on its new departure. People at a distance interested in Boundary Creek will do well to subscribe to the Times, which is one of the best conducted and most reliable papers published in British Columbia.

#### *Lemon Creek.*

LEMON Creek is destined to become one of the richest gold districts in the Kootenay. Up to the present time the tenor of attraction has been created by the development of one of the earliest claims located, the Cameronian. This property after continued development from date of location was incorporated in December, 1896. The ledge carries from eight to ten feet with a pay streak of five feet. The quartz indicating from assays made at different depths of tunnel rapid increase in gold value, running from \$47.34 gold, 12.25 ounces silver per ton from ledge blast test to \$122 gold and 20.40 ounces silver per ton fifty feet in tunnel.

Many more locations have been made in the vicinity of the Cameronian which will prove valuable properties under development.

#### *The Prevention of Accidents in Mines.*

THE recent development of metalliferous mining in British Columbia and the still more rapid development which is likely to take place in the immediate future renders this an opportune time to consider what steps can be taken to prevent or minimize the numerous accidents—fatal or otherwise—which are sure to accompany this certain expansion in mining, unless much greater care in working is exercised than at present. The majority of miners the world over are notoriously reckless of the dangers that are more or less incident to their occupation, and, to use a western expression, they look upon a man who sees these dangers and tries to prevent them as a sort of "tenderfoot." Some managers unfortunately take the same dangerous view, so that it behooves the community to protect such people against themselves, and so save their relatives and friends from all the sad consequences which are sure, sooner or later, to follow in the wake of carelessness.

Up to the present time the mines here have been mostly very shallow and the risks to life, limb and health have been small compared with what they will be as the depth increases, the workings become more extensive and the employment of more powerful and more complicated appliances are rendered necessary. But even now some dangerous practices are followed—practices which, unless prevented, will, sooner or later, bring a load of trouble to many a dependent household; and by the encouragement of a careless habit, will greatly intensify that dire result, as the days go on and the dangers increase—as naturally they must with increased development.

The method of placing ladders in shafts, at present adopted, is most dangerous. No matter what depth, or how steep, a shaft may be, the ladders, by which the men descend and ascend the shaft, are made in one continuous length, without a resting place of any kind, or any arrangement by which, if a man should slip, his fall might be arrested and certain death prevented. In England the Metalliferous Mines' Act—now twenty-five years old—provides that the distance between the platforms on ladderways shall not exceed thirty feet, and that the ladders shall be placed at such an angle that the weight of a man's body shall be thrown on to his feet, and not partly on to his hands, as is the case with the more or less plumb ladders at present so largely used in British Columbia. Moreover, the ladderway should always be completely divided off from the hoisting shaft, and not be in the same compartment, as it usually is here, so that if the bucket or skip should break away from its guides, no harm could possibly come to anyone climbing the ladders. There are already several ladders in the mines of British Columbia over a hundred feet in length, many of them nearly plumb, and one over five hundred feet long. Imagine the consequences of a slip, or of a bucket getting out of its "ways" when a number of men were travelling either up or down the shaft. Yet

so careless and thoughtless are some managers that three young ladies were actually taken down one of the deepest and most dangerous of these shafts and the ore buckets were whirring past them at intervals all the way down.

The ropes and other tackle at present used on sinking pits need to be greatly strengthened and the various parts should be renewed before they are too far worn.

The storage and use of explosives has received little or no attention whatever in this country. Hundreds of pounds of giant powder are not unfrequently stored at a mine in one of the drift-ways. In fact some mines have no other store, whilst at most of them the stores are very imperfectly built and not sufficiently far away from dwellings or workshops.

The use of tape-fuse, so common in this country, leads to very frequent accidents from what is known as "hanging fire." In case of a "miss-fire" miners should not be allowed to return to their workings for at least twenty minutes. Then, if the fuse should happen to be hanging fire, it has sufficient time either to die out or to resume its "run" and explode the charge before the men return.

The untamping of holes that have missed should be strictly forbidden. It is a most dangerous practice and one that is quite unnecessary, if the holes be properly tamped. A charge can easily be exploded through ten or twelve inches of tamping by placing a little explosive on the top of it.

I have only mentioned a few of the matters needing immediate attention, but as the mines develop many others will present themselves, not the least of which are the precautions necessary to secure efficient ventilation and ample supports to the working places.

Experience in other countries has shown that the only way of securing, generally, the discipline necessary to safe working in mines, is by Act of Parliament, the principal rules to be observed being clearly set out in such Act, and severe penalties imposed for their breach by either workmen or employers.

It is to be hoped that the Legislature, during its present session, may make an opportunity of dealing thoroughly with this subject, affecting as it does so closely the welfare of such a large proportion of the community. J. D. KENDALL.

#### *Trout Lake, B.C.*

AS a subscriber to your valuable paper and an interested resident of the town of Ferguson in the above named district, and also never having seen our town mentioned in your many notes from mining centres, I make bold to send you a little information. I am not anxious to see my name in print, but wish the before mentioned town to receive some attention. Ferguson is situated at the junction of the North and South Forks of Lardeau Creek. It is connected by direct road from Thompson's Landing (from which it is just sixteen miles) on the North Arm of the Arrow Lake. While the Arm is open, that is for nine months in the year, a steamer (the *Lardeau*) runs between Arrowhead and Thompson's Landing; thence teams connect with Ferguson, but at present, while the Arm is frozen, communication is difficult. How-

ever, in the coming summer we expect to see a tramway or railway to Galena Bay, or Rosenheim, as the Horne-Payne Company's new townsite is now named, which place is on the Arrow Lake almost exactly opposite Arrowhead, thus giving us an open country all the year round.

Our town is only in its infancy but has a bright future before it. Firstly on the South Fork are the Silver Cup, Badshot, Sunshine, Towzer and a great many more prospects which are too well-known to need any special mention, though I may state that the Silver Cup, owned partly by Messrs. Dunn & Farrel, of Vancouver, and partly by the Horne-Payne Company, has already been a shipper, and under the able management of Foreman A. Munroe, who is now putting in a tunnel with great success, bids fair to be a bonanza.

I might also mention the Badshot, owned by F. Campbell and F. and W. Johnson, as also having a large quantity of ore on the dump, and, notwithstanding that the trail to their claim is hardly worthy of the name, they intend to ship this spring.

The Sunshine, owned by the Horne-Payne Company, and under Foreman Rutherford's management, promises to be a shipper in the near future also.

The North Fork is equally well stocked with very promising claims, and a number of important deals have been put through this fall; but I will merely mention that the Northern, of Mr. H. Macpherson, and the Broadview, of the Horne-Payne Company, have tons of ore in sight and on the dump. In fact the Northern is now shipping two carloads across the ice on the Arm, and, as they and many more valuable properties, must inevitably find Ferguson their most convenient business centre, it must soon become a busy and important town.

At present we have an hotel and general store, and are promised a post office in the spring. A large number of lots have been sold, and building promises to be brisk this summer.

I may mention that the Horne-Payne Company are largely interested in the district, and several other syndicates are looking in this direction, as well as private individuals. I have only to add that we are much indebted to Gold Commissioner Graham, at Revelstoke, for many improvements during last summer and fall in our district.

#### THE FORKS.

#### *Revelstoke.*

IN spite of every disadvantage which the ingenuity of mankind could heap upon Revelstoke, a townsite without a title and a smelter that refused to smelt, this town, by the sheer force of geographical position, is beginning to come to the front and big developments may shortly be expected. Recent discoveries have made it perfectly certain that a mining region, second to none in British Columbia, will in the immediate future be opened up in the Lardeau, Trout Lake, Illecillewaet districts, to say nothing of the Big Bend country.

In the Lardeau country, by which in its ordinary acceptance is included part of both the Lardeau and Trout Lake recording office districts, a good deal of development work has been going on all winter and a number of claims have passed into

the hands of capitalists, which ensures a still larger amount being carried on in the near future. Ferguson is the coming camp of the Lardeau, being situated in the immediate vicinity of the Great Northern, Badshot, Silver Cup and a score of other groups of claims, of which the first three are being developed and showing up most satisfactorily.

On the Great Northern group, the Great Northern claim is already shipping ore, and a recent assay gave 430 ounces of silver and \$34 in gold. The Broadview, on the same reef, is owned by the Horne-Payne syndicate, and has several hundred tons of ore ready for shipment. The Silver Cup claim in the Silver Cup group is owned by a Vancouver company. A recent shipment of eighteen tons to Tacoma from this mine netted the owners \$5,000. On the same reef the Horne-Payne syndicate are working on a lead two feet wide of very high grade ore. Campbell & Johnson, of the Badshot, struck their ore on the cross-cut at the beginning of the month.

Six claims on the Badshot group with the Molly Mack claim have been bonded to a New York company for \$10,000. Two claims in the Pool group have been bonded to eastern capitalists for \$20,000, and are to be stocked as a gold proposition as they have assayed as high as \$49 in gold. On Fish Creek the Wide West group has been bonded for \$10,000 to eastern capitalists who are getting ready to work the property as soon as the season opens, and another eastern syndicate are negotiating for the purchase of the Black Bear group of three claims for \$30,000.

Up in the Illecillewaet country the Horne-Payne syndicate are pushing operations forward with great energy, and their concentrator and tramway at Laurie, a few miles east of Illecillewaet Station on the C.P.R., will soon be ready for work. Up on the north branch the Grant claim has been bonded to an English company, it is stated, for \$125,000. On the Dave Wolseley a tunnel has been driven in 200 feet, showing two veins, one three and the other four feet wide, both well mineralized. The indications are that the North Branch will, under development, turn out a district of most extraordinary richness.

The mail has not yet come out from Big Bend, so that it is impossible to say what is going on in there just now, but a party is working at the Orphan Boy quartz claim and the Last Chance and Consolation placer claims are being operated this winter.

People are beginning to realize the enormous value of the mining districts immediately round this place and also that good property can be obtained either as a speculation or investment for a good deal less money than in other parts of Kootenay, into which capital has already for some little time past been directed. As this is a gold as well as a silver country it is proving very attractive to English capital, and a great deal of attention will be paid to this part of West Kootenay during the coming season. You will hear a good deal about Revelstoke, the Lardeau, Trout Lake, Illecillewaet and Big Bend within the next twelve months.

G. E. GROGAN.

### *A Promising Property Near Trail.*

**A**MONG the companies formed for the purposes of developing mineral prospects in the Trail Creek Camp the Dollarocracy Mining & Smelting Company starts with a bright promise for the future. The owners are Trail-Ros land people, among whom are F. P. Gutelius, general superintendent; J. W. Kimball, auditor; A. C. Dennis, general roadmaster, and C. W. Mount, general agent, of the Columbia & Western Railway Company; Geo. D. Cochrane, Mr. Heinze's private secretary; S. K. Green, one of Trail's leading real estate dealers, and a number of others. The offices of the company are F. P. Gutelius, president; J. W. Kimball, secretary-treasurer; consulting engineer, A. C. Dennis. The head office of the company is located at Trail.

The property consists of two full claims 1,500 by 1,500 feet each, named the Pete and Lulu. These claims are situated on the south bank of the Pen d' Reille River, three miles from the town of Waneta on the Nelson & Fort Sheppard Railway, and the same distance from the Columbia River. At present the only means of reaching the claims is by a trail from Boundary, Wash. A waggon road, however, is now being built from a point on the north side of the river to connect with the waggon road from Waneta, which runs within half a mile of the property, and a wire cable will be stretched across the river at this point and an arial tramway operated over it.

The assays taken average from \$50 to \$125 in values in gold, silver and copper. The work done on the claim at present consists of a shaft sixteen feet in depth, a tunnel about twenty feet in length which is being run in to cut the ledge, and a second shaft about twelve feet in depth. The ledge itself is from ten to twenty feet in width, all of which carries values. The pay chute is about two and a-half feet in width, and an assay of this width taken from the bottom of shaft No. 1 gave \$10.40 gold, \$74.19 silver, \$4.80 copper. An assay taken from the bottom of shaft No. 1 gave \$12.80 gold, \$95.42 silver and \$7.44 copper, being an average of three feet. The bottom of this shaft is in solid ore.

The company have men at work developing and prospecting the claims vigorously and are saying little. The Trail Creek News of a recent issue said of this property: "It is a property upon which a great deal of work and no talking has been done." The company already have about ten tons of high grade ore on the dump which will probably assay \$75 per ton, and they intend to prosecute work vigorously during the present year.

### *Held Over.*

**T**HE following interesting articles are unavoidably held over, and will appear in the next issue of the RECORD:

- An Assayer's Story, by Randall H. Kemp.
- The Town of Trail.
- Kamloops, B.C., by John F. Smith.
- Texada Island, by J. R. Wolcott.
- A Paper on Miss-fires, by Mr. J. H. Kendall.
- The Omineca country.
- A Trip down the Columbia in Winter.

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### Mining Stocks.

Prepared by A. W. More & Co., Mining Brokers, Victoria, B.C. on 20th February, 1897.

Companies.	No. of Shares.	Par Value.	Price.
<b>TRAIL CREEK.</b>			
Alberta	1,000,000	\$ 1 00	\$0 15
B.C. Gold King	1,000,000	1 00	0 10
Beaver	750,000	1 00	0 10
Big Three	3,500,000	1 00	0 15
Bluebird	600,000	1 00	0 10
Butte	1,000,000	1 00	0 04
Caledonia Con.	500,000	1 00	0 10
California	2,500,000	1 00	
C. & C.	500,000	1 00	
Celtic Queen	750,000	1 00	0 05
Centre Star	500,000	1 00	
Colonna	1,000,000	1 00	0 27
Commander	500,000	1 00	0 17
Crown Point	1,000,000	1 00	0 60
Deer Park	1,000,000	1 00	0 22
Della Colla	1,000,000	1 00	0 04 1/2
Eastern Star	500,000	1 00	0 20
Enterprise	1,000,000	1 00	0 05
Eric	1,000,000	1 00	0 11
Evening Star	1,000,000	1 00	0 16
Georgia	500,000	1 00	0 10
Gertrude	500,000	1 00	0 15
Golden Drip	1,000,000	1 00	
Golden Queen	1,000,000	1 00	
Great Western	1,000,000	1 00	0 17
Hattie Brown	1,000,000	1 00	0 10
Helen	600,000	1 00	0 06
High Ore	500,000	1 00	0 06
Homestake	1,000,000	1 00	0 17 1/2
Idaho	500,000	1 00	
Imperial	1,000,000	1 00	0 05 1/2
Iron Horse	1,000,000	1 00	0 20
Iron Mask	500,000	1 00	0 48
I.X.L.	1,000,000	1 00	0 12
Josie	700,000	1 00	0 52
Jumbo	500,000	1 00	0 55
Knight Templar	500,000	1 00	0 05
Kootenay-London	1,000,000	1 00	0 10
Le Roi	500,000	5 00	7 75
Lilly May	1,000,000	1 00	0 20
Mayflower	1,000,000	1 00	0 14
Monita	750,000	1 00	0 25
Monte Cristo	1,000,000	1 00	0 16
Morning Star	1,000,000	1 00	0 10
Nest Egg	500,000	1 00	0 10
Northern Belle	1,000,000	1 00	0 15
Novelty	1,000,000	1 00	0 09
O. K.	1,000,000	1 00	0 30
Palo Alto	1,000,000	1 00	0 10
Phoenix	500,000	1 00	0 15
Poorman	500,000	1 00	0 09 1/2
R. E. Lee	2,000,000	1 00	0 15
Red Mountain View	1,000,000	1 00	0 12
Rossland, Red Mountain	1,000,000	1 00	0 25
St. Elmo	1,000,000	1 00	0 09
St. Paul	1,000,000	1 00	0 12 1/2
Silverine	500,000	1 00	0 09
Southern Cross & W. Con	500,000	1 00	0 20
Trail Mining Co	2,500	100 00	
Union	600,000	1 00	
Virginia	500,000	1 00	0 16
War Eagle Consolidated	2,000,000	1 00	1 15
West Le Roi	500,000	1 00	0 18
White Bear	2,000,000	1 00	0 17
<b>AINSWORTH, NELSON AND SLOCAN.</b>			
Athabasca	1,000,000	1 00	0 25
Bondholder	1,000,000	1 00	0 15
Alamo	500,000	1 00	
Cumberland	50,000	10 00	
Dardanelles	1,000,000	1 00	0 20
Dellie	750,000	1 00	0 15
Grey Eagle	750,000	1 00	
Hall Mines	300,000	£1	
Idler	1,000,000	1 00	0 10
Kootenay-Columbia	400	100 00	
London	600,000	25	0 25
Minnesota	1,000,000	1 00	
Noble Five Con	1,200,000	1 00	0 65
Rambler Con	1,000,000	1 00	0 48
Reco	1,000,000	1 00	1 35
Slocan Star	1,000,000	50	2 70
Sunshine	50,000	10 00	

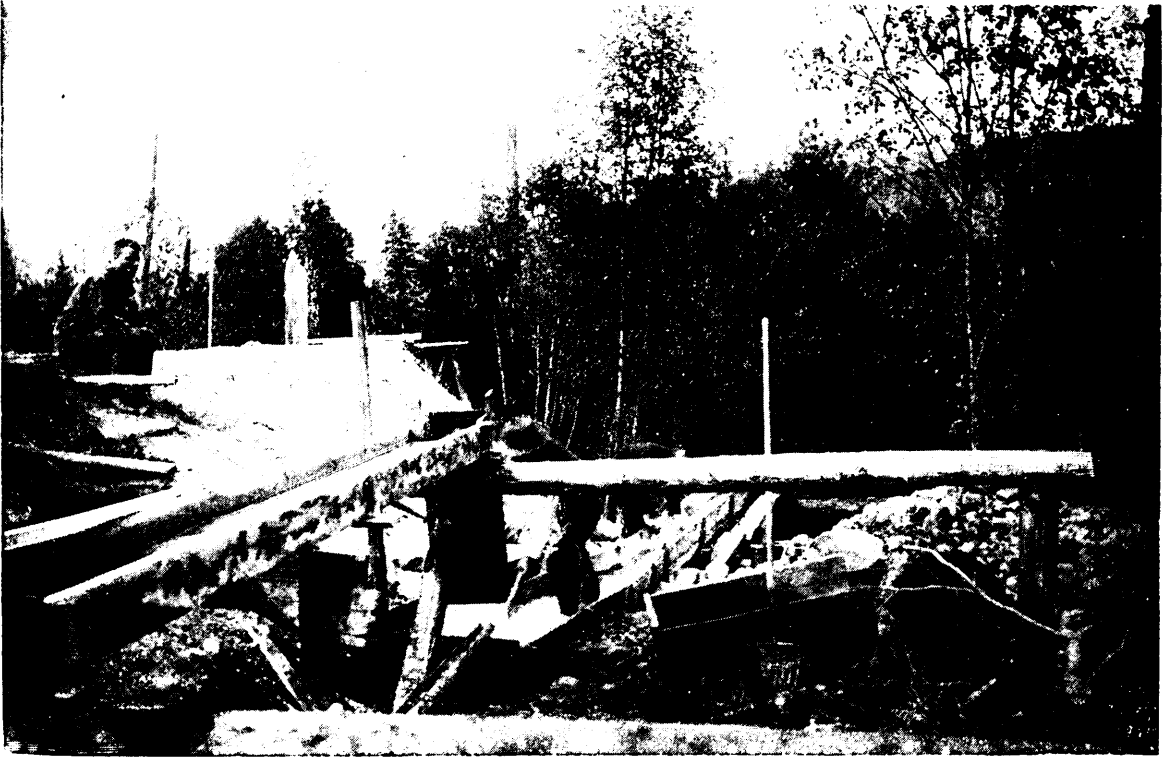
Companies.	No. of Shares.	Par Value.	Price.
Washington	1,000,000	1 00	0 25
Wonderful	1,000,000	1 00	0 17
<b>BOUNDARY.</b>			
Old Ironsides	1,000,000	1 00	0 10
<b>CAMP MCKINNEY.</b>			
Cariboo	800,000	1 00	0 48
<b>REVELSTOKE.</b>			
Orphan Boy	700,000	1 00	0 10
<b>TEXADA ISLAND.</b>			
Texada Proprietary	1,000,000	.25	0 25
Van Anda	5,000,000	1 00	0 15
Victoria-Texada	600,000	0 25	0 25
<b>ALBERNI DISTRICT.</b>			
Alberni Mountain Rose	250,000	1 00	0 10
Consolidated Alberni	1,000,000	1 00	0 40
Mineral Creek	500,000	1 00	0 05 1/2
Mineral Hill	750,000	1 00	
Quadra	500,000	1 00	0 10
<b>CARIBOO.</b>			
Cariboo Gold Fields Ltd	£100,000		
Cariboo Hydraulic	300,000		
Horsety Hydraulic	200,000		
Horsety Gold Mining Co	100,000	10 00	1 50
Slough Creek	500,000	1 00	0 50
<b>LILLOOET DISTRICT.</b>			
Golden Cache	500,000	1 00	1 50

† Dividends paid to date are as follows: Le Roi, \$300,000; War Eagle, \$187,000; Cariboo, \$140,000; Slocan Star, \$300,000; Reco, \$100,000; Rambler Consolidated, \$20,000. Alamo, Cumberland and Noble Five have also paid dividends. Since last month's return was made up the following dividends have been declared: Le Roi, \$25,000; Cariboo, of Camp McKinney, \$16,000; Reco, \$100,000; Rambler Consolidated, \$20,000.

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PLACER GOLD MINING, BRITISH COLUMBIA.  
(From photograph by Edwards Bros., Vancouver.)



STAGING TO CARIBOO, B.C.  
(From photograph by Edwards Bros., Vancouver.)

**Mining Papers on File.**

The following papers are kept on file at the offices of the B.C. MINING RECORD for the use of visitors who may wish to consult their columns:

Mining and Scientific Press.....	San Francisco, Cal
Mining and Electrical Review.....	" "
Mining and Metallurgical Journal.....	Los Angeles, Cal
Miner and Electrician.....	Spokane, Wash
Mining.....	" "
Spokesman Review.....	" "
Western Mining World.....	Butte, Montana
Mine, Quarry and Metallurgical Journal.....	Chicago, Ill
Engineering and Mining Journal.....	New York
Mining Journal.....	London, Eng
Shareholder.....	" "
The Colonies and India.....	" "
Canadian Gazette.....	" "
Australian Mining Standard.....	Sydney, N.S.W
Standard and Diggers' News.....	Johannesburg, South Africa
Canadian Engineer.....	Toronto, Ont
" Electrical News.....	" "
Industrial Canada.....	" "
Canada Lumberman.....	" "
Monetary Times.....	" "
Toronto World.....	" "
Toronto Globe.....	" "
Mining Review.....	Ottawa
Mining News.....	Montreal
Edmonton Herald.....	Edmonton, N.W.T
Rosslander.....	Rossland, B.C
Rossland Miner.....	" "
Weekly Record.....	" "
Kootenaiian.....	Kaslo, "
Miner.....	Nelson, "
The Tribune.....	" "
Trail Creek News.....	Trail, "
Boundary Creek Times.....	Greenwood City, "
Slocan City News.....	Slocan City, "
Grand Forks Miner.....	Grand Forks, "
Ledge.....	New Denver, "
Golden Era.....	Golden, "
Vernon News.....	Vernon, "
Paystreak.....	Sandon, "

Advance.....	Midway, "
Prospector.....	Fort Steele, "
Inland Sentinel.....	Kamloops, "
B.C. Mining Journal.....	Ashcroft, "
Nanaimo Free Press.....	Nanaimo, "
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- California Wire Works, San Francisco. Hallidie ropeway, etc.
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- Canadian Rand Drill Co., Montreal and Rossland. Mining machinery.
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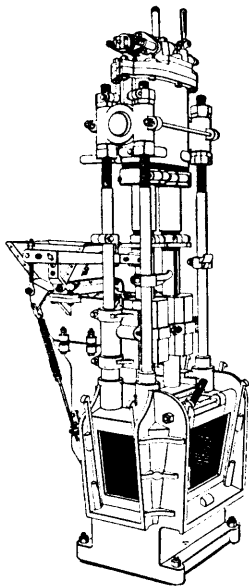
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Treasurer, DR. G. L. MILNE.

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The objects for which this Company is formed are: To prospect and acquire mineral-bearing property, and to sell, lease or otherwise dispose of the same. Parties having good mining properties to dispose of will do well to communicate with the Company's Office, No. 30 Broad Street, (Opposite Driard Hotel.) Cash will be paid for approved property.

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SECRETARY-TREASURER, J. T. BETHUNE.

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SECRETARY-TREASURER, R. T. WILLIAMS.

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# DIRECTORY OF MINES.

The collection of the necessary information about the mines having taken longer than the publishers expected they were unable to issue the first number of the DIRECTORY as soon as intended. The composition, however, is now complete and the work about through the press. The first number of the DIRECTORY will therefore be in the hands of subscribers within the next few days.

The second number of the DIRECTORY will be issued on 1st May and will contain not only a large addition to the number of mines listed, but it will also give the only published version of the Mining Laws of the Province containing the amendments being passed at the present session of the Legislature.

The DIRECTORY, being corrected and issued quarterly, will be invaluable to parties interested in the mines of British Columbia, as it is the intention of the publishers to make the work more and more complete as each number is issued.

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**TIME TABLE NO. 23.**  
(Taking effect December 28th, 1896.)

**VANCOUVER ROUTE.**

VICTORIA TO VANCOUVER daily except Monday at 1 o'clock.  
VANCOUVER TO VICTORIA daily except Monday at 13 o'clock or on arrival C.P. Railway No. 1 Train.

**NEW WESTMINSTER ROUTE.**

LEAVE VICTORIA—For New Westminster, Ladner's Landing and Lulu Island Sunday at 23 o'clock; Wednesday and Friday at 7 o'clock. Sunday's steamer to New Westminster connects with C.P.R. Train No. 2 going east, Monday.

FOR PLUMPER PASS—Wednesdays and Fridays at 7 o'clock.  
FOR MORESBY AND PENDER ISLANDS—Fridays at 7 o'clock.  
LEAVE NEW WESTMINSTER—For Victoria Monday at 13:15 o'clock. Thursday and Saturday at 7 o'clock.

FOR PLUMPER PASS—Saturday at 7 o'clock.  
FOR PENDER AND MORESBY ISLANDS—Thursday at 7 o'clock.

**FRASER RIVER ROUTE.**

Steamer leaves NEW WESTMINSTER for CHILLIWACK and way landings every Tuesday, Thursday and Saturday at 7 o'clock during river navigation.

**NORTHERN ROUTE.**

Steamships of this Company leave Victoria for Fort Simpson via Vancouver and intermediate ports on the First and Fifteenth of each month. If sufficient inducements offer, will call at points on the West Coast and Queen Charlotte Islands.

**BARCLAY SOUND ROUTE.**

Steamer "Tees" leaves Victoria for Alberni and Sound ports the 10th, 20th and 30th of each month.  
The Company reserve the right of changing this Time Table at any time without notification.

G. A. CARLETON,  
General Agent.

JOHN IRVING,  
Manager.

**The Columbia & Kootenay Steam Navigation Co., Ltd.**

**TIME TABLE NO. 10.**  
In effect June 8th, 1896.

**ARROWHEAD-TRAIL ROUTE, STEAMER "NAKUSP."**

South bound; read down.	North bound; read up
Mon. Wed. Fri. 7 p.m. De	ARROWHEAD Ar 11.30 a.m. Wed. Fri. Sun.
" " " 11 p.m. Ar	De 7.30 a.m. " " "
" " " 12 m. De	NAKUSP Ar 6 a.m. " " "
Tues. Thurs. Sat. 9 a.m. Ar	De 8.30 p.m. Tues. Thurs. Sat.
" " " 12 noon De	ROBSON Ar 8 p.m. " " "
" " " 2 p.m. Ar	TRAIL De 4.30 p.m. " " "

Connections at Arrowhead with C.P.R. to and from Revelstoke and all points east and west; at Nakusp with Nakusp & Slocan R. to and from Slocan points; at Robson with C. & K. R. to and from Nelson and Kootenay Lake points; at Trail with C. & W. R. to and from Rossland; at Trail with Str. "Trail" to and from Waneta, Northport and Spokane.

**TRAIL-NORTHPORT ROUTE, STEAMER "TRAIL."**

Daily except Sun. 8 a.m. De	TRAIL Ar 4.30 p.m.	Daily except Sun. 8 a.m. De	TRAIL Ar 4.30 p.m.
" " " 9 a.m. Ar	WANETA De 3 p.m.	" " " 9 a.m. Ar	WANETA De 3 p.m.
" " " 10 a.m. Ar	NORTHPORT De 1 p.m.	" " " 10 a.m. Ar	NORTHPORT De 1 p.m.

Connections at Northport with S.F. & N.R. to and from Spokane and way points; at Trail with C. & W. R. to and from Rossland, and with Str. "Nakusp" to and from Robson, Nakusp and Revelstoke.

**KOOTENAY LAKE ROUTE, STEAMER "KOKANEE."**

Daily except Sun. 4.00 p.m. De	NELSON Ar 9.30 a.m.	Daily except Sun. 4.00 p.m. De	NELSON Ar 9.30 a.m.
" " " 8 p.m. Ar	KASLO De 5.30 a.m.	" " " 8 p.m. Ar	KASLO De 5.30 a.m.

Saturday, June 6th and every second Saturday following, steamer leaves Kaslo at 10 p.m. for Bonner's Ferry; returning leaves Bonner's Ferry Sun. at noon. Connections at Nelson with C. & K. R. to and from Robson, Trail, Rossland, Nakusp, Revelstoke and C.P.R. points; at Nelson with N. & F.S.R. to and from Spokane and way points; at Kaslo with K. & S. R. to and from Slocan points; at Bonner's Ferry with G.N.R.

The right is reserved to change this schedule at any time without notice.  
For tickets, rates, etc., apply at Company's office, Nelson.

T. ALLAN,  
SECRETARY.

J. W. TROUP,  
MANAGER, Nelson, B.C.

**UNION STEAMSHIP CO., B.C., LD.**

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LEAVES MOODYVILLE—8, 9.15, 10.45, 12 noon, 2, 4, and 5.45 p.m.  
LEAVES VANCOUVER—8.35, 10, 11.20, 1.15 p.m., 3.15, 5.15, and 6.20. Calling at North Vancouver each way, excepting the noon trip.

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H. DARLING, Manager.

Telephone 94.

P.O. Box 77<sup>1</sup>

**KASLO & SLOCAN RAILWAY.**

TIME CARD NO. 1.

To take effect Wednesday, Nov. 20, 1896. Trains run on Pacific standard time.

Going west.	Daily.	Going east.
Leave 8.00 a.m.	Kaslo	Arrive 3.50 p.m.
" 8.36 "	South Fork	" 3.15 "
" 9.36 "	Sproule's	" 2.15 "
" 9.51 "	Whitewater	" 2.00 "
" 10.03 "	Bear Lake	" 1.48 "
" 10.18 "	McGuinn	" 1.33 "
" 10.30 "	Bailey's	" 1.21 "
" 10.39 "	Junction	" 1.12 "
Arrive 10.50	Sandon	Leave 1.00

SANDON AND CODY.

Leave 11.00 am Sandon Arrive 11.45 a.m.  
Arrive 11.20 a.m. Cody Leave 11.25 a.m.

For rates and information, apply at Company's offices.  
ROBT. IRVING, Traffic Manager. R. W. BRYAN, Superintendent.

**Columbia & Western Railway Co.**

Schedule No. 4, February 4th, 1897.

EASTBOUND.

No. 4 Passenger, daily except Sunday; leaves Rossland 4 p.m., arrives Trail 5 p.m.  
No. 2 Passenger, daily except Sundays; leaves Rossland 7 a.m., arrives Trail 8 a.m.

WESTBOUND.

No. 3 Passenger, daily except Sunday; leaves Trail 8.00 a.m., arrives Rossland 10.00 a.m.  
No. 1 Passenger, daily except Sunday; leaves Trail 5.45 p.m., arrives Rossland 7.40 p.m.

Connections made with all boats arriving and departing from Trail.

GENERAL OFFICES:

TRAIL, B.C.

F. P. GUTELIUS.

General Superintendent.

**INTERNATIONAL NAVIGATION & TRADING CO., LIMITED.**

STEAMERS

**INTERNATIONAL and ALBERTA**

on Kootenay Lake and River.

TIME CARD IN EFFECT FEBRUARY 1st, 1897.

Daily except Sunday—Subject to change without notice.

Leave Kaslo for—  
Nelson, Ainsworth, Pilot Bay, Balfour, Way Points... 5.30 a.m.

Leave Nelson for—  
Kaslo, Ainsworth, Pilot Bay, Balfour, Way Points... 4.40 p.m.

Close connection at Five-Mile Point with all passenger trains of the N. & F.S.R.R. to and from Northport, Rossland and Spokane.

Leav Kaslo ..... 5.30 a.m. | Leav Spokane ..... 7.00 a.m.

Arriv Northport... 12.30 p.m. | " Rossland ..... 10.30 a.m.

" Rossland ... 3.25 p.m. | " Northport ..... 1.27 p.m.

" Spokane ... 7.00 p.m. | Arriv Kaslo ..... 8.00 p.m.

Through Tickets sold at lowest rates, and Baggage checked to all United States points.

GEORGE ALEXANDER, General Manager.

Kaslo, B.C., January 30, 1897.

Head Office, KASLO, B.C.

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