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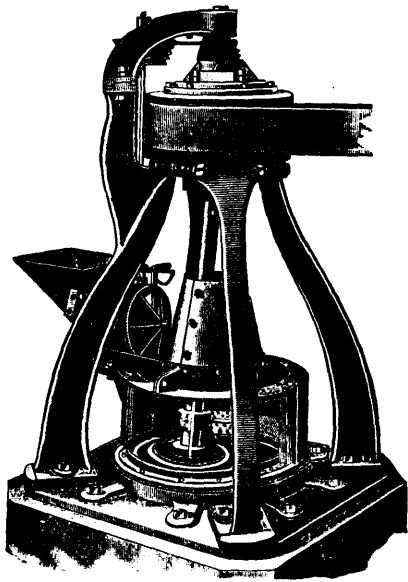
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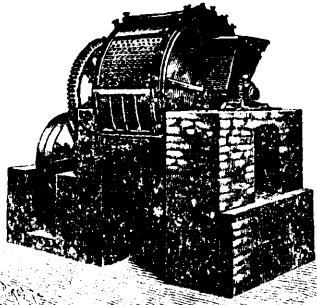
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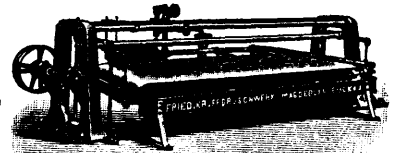
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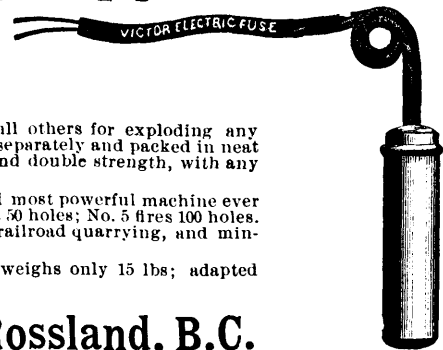
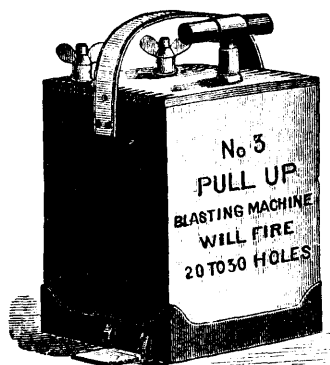
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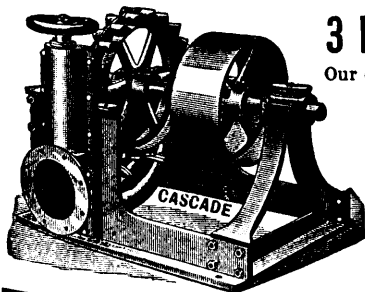
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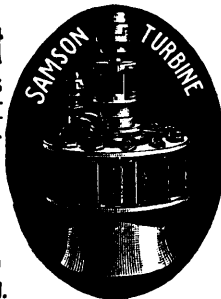


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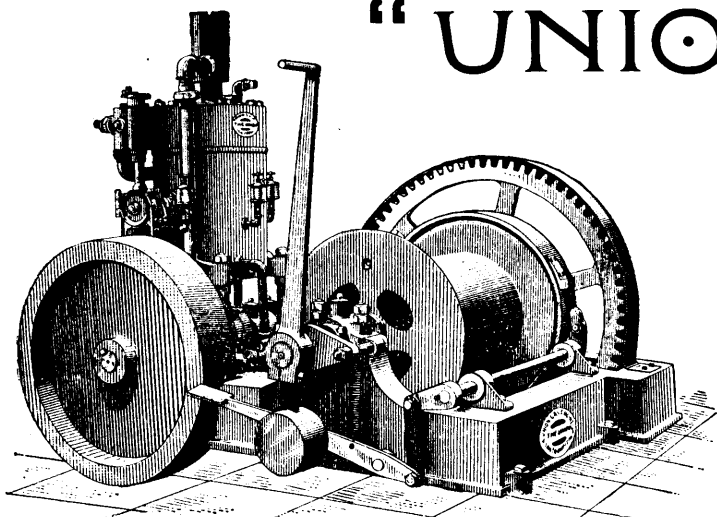
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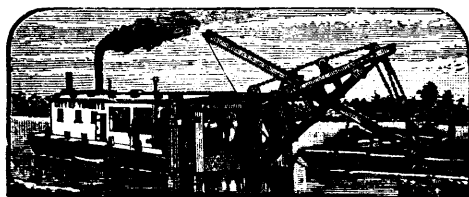
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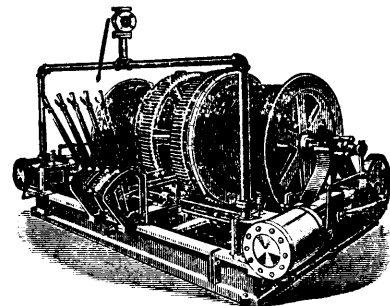
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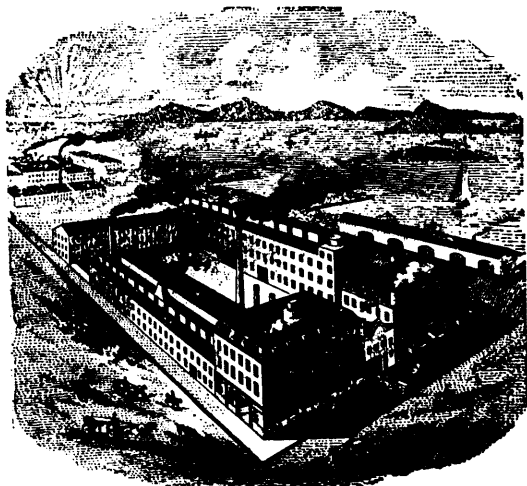
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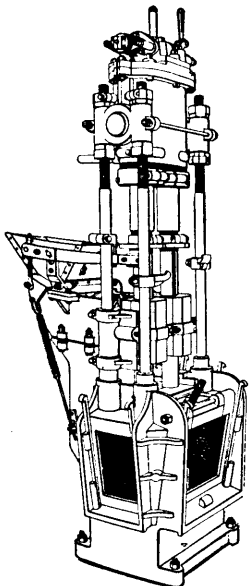
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EDITORIAL NOTES.

WE understand that the Royal Humane Society's medal has been awarded to Jim Hemsworth for his act of heroism in saving the lives of two of his fellow-workmen at the risk of his own. We are pleased that a deed so noble should be thus promptly recognized in a befitting manner.

During February and March about three hundred mining companies, capitalized at over three hundred million dollars, were incorporated and registered in British Columbia, and sensible men are asking themselves how long this craze of company promoting will last.

The capitalization of mining companies in this province is now approaching a billion dollars, which is an absurd figure when it is considered that, with a few exceptions, our mines are as yet in their infancy. If the object was to obtain money for development purposes there would not, perhaps, be so much to complain of. Our mineral deposits are so extensive and so rich that they could find profitable employment for a good many millions of dollars. But it is quite evident that the development of mines is a secondary consideration with most of the company promoters.

The demon of speculation is abroad and men having mere prospects are not content with endeavouring to obtain money in a legitimate way to develop their claims but they must needs discount the future to the extent of a million or more by incorporating a company and appropriating to themselves several hundred thousands of dollars in shares while the public under the guise of treasury stock are expected to put up the money for development purposes and to take almost the entire risk in the enterprise.

The sum paid for a claim is, in most cases, small in comparison with the amount put up by the public for developing it, and if it should turn out to be worthless the promoters of the company are out little, while the confiding investors lose frequently a very considerable sum.

In some instances the promoters do not invest a cent, but being fortunate in obtaining a bond on a claim, they at once proceed to incorporate on the strength of it, in which case their only outlay is the cost of incorporation.

The whole business is so utterly rotten that it is difficult to understand why our legislators do not endeavour to put a stop to it. If they have any such intention they certainly at this time of writing do not show that they appreciate the importance of immediate action in the matter.

The Companies' Act, which, it is hoped, will contain some remedy for the existing unsatisfactory state of the law in respect to mining incorporations, has hung fire for weeks, and in the meantime promoters of companies have been reaping a harvest, and by the time the new law is passed it will be powerless to accomplish much good, at least for some considerable time to come.

The members of the present Legislature of British Columbia, thirty-three in number, may be good men and true, but they have earned for themselves the reputation of being the greatest "dawdlers" in the Dominion.

We hardly expect that when these words are in print the Companies' Act will have passed the House, and we candidly confess, judging from what has al-

ready transpired, that we do not look forward to its being either a complete or satisfactory bit of legislation when the members get through with it.

We hope that in this we will find ourselves mistaken.

The Crow's Nest Pass Railway was the subject of a somewhat stormy debate the other day in the House of Commons during which the Canadian Pacific Railway was referred to in no complimentary terms by British Columbia members.

It cannot be denied that there prevails in this province a dread lest the Canadian Pacific Railway secure control of the Crow's Nest Pass. But, as we have pointed out on several occasions, the mainpoint is for the Government to safeguard the interests of the people in any contract which they may enter into for the construction of the road.

We have all along expressed confidence that the Government would safeguard the interests of the people of British Columbia in the matter of the Crows' Nest Pass Railway, and we see no reason so far to change our mind. But this does not prevent our urging upon the British Columbia members to keep a watchful eye while the matter is in progress.

There is no saying what influences may be brought to bear upon the Government, and with the best intentions they may be led to adopt a course which, from a British Columbia point of view, would not be what we desire.

First, we want the railway; second, we want to be protected in the matter of rates, and, third, we want a definite assurance as to what the price of coal and coak will be delivered from the Crow's Nest Pass. With satisfactory assurances on these three points we won't have much to complain of whoever builds the railway.

One of the benefits which British Columbia expects to derive from the building of the Crow's Nest Pass line is cheap coke for her smelters. There should be a distinct understanding on this point before any contract is let for building the road. The price at which coke will be delivered to the smelters should be determined and made a condition between the Government and the contracting parties. No mere assurance on the subject will do, but it should be made a hard and fast part of the agreement with the builders of the line. In this way the owners of the coal lands can be brought to time, for without the railway the coal lands are comparatively worthless.

For the first time in the history of the province we have a "Report of the Minister of Mines" that is worthy of the name. For this we are of course indebted to the fact that the Minister was fortunate enough to secure in Mr. Carlyle a really able man to take charge of the "Bureau of Mines." Take out of the report what Mr. Carlyle and his staff contribute to its pages and very little worth reading is left. Hon. Col. Baker, the Minister of Mines, is to be congratulated on the report of his department which he has been able to present this year to the Legislature. We trust it will be widely distributed.

Speaking of the report, we would suggest to the Provincial Government not to be too sparing of printers' ink, so far as Mr. Carlyle's very able "bulletins" are concerned. They should have a wide circulation, and we hope the Government will see that a sufficient number of copies are printed to supply all demands.

There appears to be a good deal of opposition in some quarters to Mr. Heinze and his schemes. It may be that he has been unduly favoured by the Government, but there is this much to be said about it, that he has shown his faith in the country by spending a large amount of his own money in his various enterprises, and for this reason, if for no other, he deserves liberal treatment at the hands of the Government and people of British Columbia.

What would Rossland be to-day if it had not been for the push and enterprise of Mr. Heinze? What would Trail be to-day if it had not been for him? Only the other day we understand he mortgaged his heavy interests in Butte, Montana. Why? To use the money in building British Columbia railways.

He is now pushing forward the line between Trail and Robson and this season he proposes to tap the great Boundary Creek district. Mr. Heinze is doing much to aid the development of our mineral resources, and while we do not favour granting him any undue privileges, at the same time we would like to see him receive every encouragement and assistance possible in the enterprises he has in hand.

We in British Columbia are a little too prone to find fault with, and even sometimes abuse the men who are foremost in the rank of developing the resources of the province. But we should not forget that it is to men like Heinze, Corbin and Rithet that we have to look in a large measure for the salvation of the province.

There has been no stronger advocate of the establishment of home smelters than the British Columbia Mining Record.

In fact we believe that the success of the mining industry in this province depends largely on the treatment of the ores as near the mines as possible.

The building of the Crow's Nest Pass Railway will bring about the erection of numerous smelters throughout Kootenay and it is certain that works of this kind will be established ere long at Vancouver, Victoria, Nanaimo and other points on the Coast.

Already the cities of Vancouver, Victoria and Nanaimo have been agitating for smelters, and the former has received several offers from capitalists to erect smelting works in its vicinity. Victoria also has under consideration certain proposals to erect a smelter, and it is of these latter we would speak.

The promoters of the Victoria enterprise ask that a bonus of \$150,000, or about one-third of the total cost of the smelting works, be paid them. The proposition is unreasonable because there is no guarantee given that after the smelter is erected it will be operated continuously. The Victoria Board of Trade and City Council require that some such guarantee should be given before asking the citizens to vote the bonus. Whether the necessary guarantee will be forthcoming we know not at this time of writing, but if it is not given Victoria had better go without a smelter a little longer until some more reasonable proposition is submitted.

We are not in favour of a cash bonus in any form being given, and we doubt if the people of Victoria will vote the money. But if it is decided that a bonus shall be given, the only proper plan for paying the money is on the basis of so much for each ton of ore smelted until the total reaches the sum of \$150,000.

We can point to several instances where bonuses have been given for the erection of smelters, but the works remain idle to this day. If the enterprise of operating a smelter in the vicinity of Victoria is to be a paying one the promoters are not justified in asking a bonus. If there is any doubt on this point the people of Victoria are not in a position to throw away money.

We believe in rendering every assistance and encouragement to men who are prepared to go into the smelting business, but the aid should be in the shape of exemption from taxation or some such assistance, rather than the payment of a cash bonus.

If we are correctly informed Vancouver is likely to have a smelter without being called upon to contribute to the cost of the works. Why should not Victoria fare likewise?

There is such a thing as being too hasty in matters of this kind, and we would advise the people of Victoria to go slow in dealing with the present smelter proposition before them. The city possesses advantages as a site for a smelter which will ere long attract attention and induce men of capital to invest in the enterprise.

The people of Kootenay are having a new experience inasmuch as they find themselves in touch with their representative in Parliament. The course adopted by Mr. Hewitt Bostock in visiting the various parts of his immense constituency and meeting the people for the purpose of discussing the needs of the several districts has won for that gentleman a host of friends. More than that, the course adopted by Mr. Bostock is showing results now that Parliament is in session and improvements in several directions are taking place.

The mail service in Kootenay still needs to be improved and we hope the member for Yale-Cariboo will hammer away at it until he succeeds in securing the necessary reforms.

There is every indication that travel to and through the mining districts will be immense during the present season. Already crowds are flocking in and the transportation companies will be taxed to their fullest capacity during the coming summer.

We are glad to see the activity displayed by the Minister of the Interior in the cause of immigration. He intends to people the vast prairies of the North-west as quickly as it can be done by energy and systematic effort. This is all very well, but has it ever struck the Government that the development of the vast mineral resources of British Columbia has a most important bearing upon the success of their immigration policy?

It is all very well to people the North-west, but it is another thing to keep them there. If they find living dear and prices of their produce low they will be very apt to become discontented. With a good market and fair prices for their produce the cost of living does not cut the same figure. It is essential, therefore, to the successful settlement of the North-west that there should be a good market provided for the settlers' produce.

With the building of the Crow's Nest Pass Railway and every encouragement given to the development of the mines of British Columbia the result will be that a great market for the produce of the North-west will be opened up in supplying the thousands of miners with the staple articles of food.

Instead of being subject to the varying markets of the East and having to take any price offered for their wheat and other produce, the farmers of the North-west would have a steady market and continuous demand for their breadstuffs and meats, etc., in the mining districts of this province.

The Government of the Dominion should take this fact to heart and bear in mind that to make their North-west immigration policy a success they must in every possible way help to build up British Columbia and develop its resources.

The Siberian Railway.

THE St. Petersburg Viedmosti publishes an article on the Siberian Railway, as the shortest road to the far East, and the following is a translation of its more important passages: "During the course of the present month the consideration of the best line for a line of railway connecting Viatka with both Moscow and St. Petersburg will be resumed. In order to complete the effect of the saving of 500 versts in Eastern Asia through the adoption of the Manchurian route, the line west of Viatka must be established direct to St. Petersburg and not to Moscow. No just idea has yet been formed of the Siberian railway as the great international artery to the far East. In its present dealings with China and Japan Europe makes use of steam communication from the ports of Germany, France, England and Italy, via the Suez Canal, or from the same ports across the Atlantic and America to the same destination, via the Pacific. Several English, French and other companies run steamers from the Suez Canal to Brindisi, from which place a mail train performs the journey to London in forty-six hours. The journey from Brindisi to Shanghai takes thirty-seven days, so that the whole journey may be set down at thirty-nine days. The cost, first-class, is 755 rubles, and second-class, 424 rubles. By the Marseilles route the same time is thirty-five days from that port to Shanghai, and the cost is, first-class, 695 rubles, and second-class, 468 rubles. The American routes takes from thirty-four to thirty-nine days, and the first-class fare is 660 rubles. How will the same service be accomplished by the Siberian Railway? From London to the Russian frontier is one and a-half day's journey, and the first-class fare is seventy rubles, second-class, fifty-two rubles. From the Russian frontier to Vladivostock, via St. Petersburg, Moscow, Samara, etc., the journey of 9,668 versts will be accomplished in fourteen days by a train travelling thirty versts an hour, and the fare would be only, first-class, 109 rubles, and the second-class, 65.4 rubles. To these fares should be added thirty per cent. for express trains and a further sum for thirteen nights in sleeping cars. From Vladivostock by Nagasaki to Shanghai, on the Schevelev steamers, or by Japanese packet, takes six days, and the fares are, first-class, eighty rubles, and second-class, fifty-four rubles. The total journey from London to Shanghai by this route would therefore take twenty-two days, and the fares would be, first-class, 308.2 rubles, and second-class, 207.5 rubles. A direct railway as advocated from St. Petersburg to Viatka, via Vologda, would shorten the distance by 357 versts."

From Vancouver.

DEVELOPMENTS in the mining world for the past month have been of great interest to the seaboard cities. Discoveries of an almost sensational character have been made in comparatively close proximity to the mercantile centres of the Canadian Pacific Coast, and these discoveries have been taken up, stocked, and managed by Vancouver and New Westminster citizens. The Fire Mountain and the Trethewey claims of Harrison Lake are among the most prominent discoveries. The Fire Mountain Company have not yet issued a prospectus, but the owners claim that their properties are fabulously rich in free gold, the lowest assay on the property running \$400 in gold, and the highest \$1,300. The Trethewey claims, which will ship in high water and pay from the grass roots, are said to run \$300 and \$400 to the ton in gold. In Okanagan, Fairview Camp, forty claims, owned and stocked by Messrs. Dier, Davidson & Russell, of Victoria, are being actively developed, and three of these, the Shamrock, Winchester and Tinhorn, have been sufficiently proved to pronounce them mines, indisputably of great richness. The Tinhorn is being proved by tunnels and a series of shafts for 1,400 feet—vein six feet wide—and by 105 assays averaging \$94 to the ton in free gold. On Texada Island nine men are engaged, three shifts, on the Silver Tip and Surprise, owned in Vancouver. The shaft of the Surprise is down 105 and the Silver Tip 64 feet. At this depth on the Silver Tip the rock was assayed for all values and to the surprise even of the owners ran 14.55 per cent. in nickel. This is very gratifying when it is taken into consideration that the Ontario Sudbury mines only run some six per cent. in nickel, and that nickel mines in the States are worked at one per cent. Besides the nickel the Silver Tip ore runs \$24 in gold. Confidence is sustained in Phillips' Arm properties owing to the final consummation of the Channe Mining Company deal by which some sixteen properties of that company were sold to the Gold Fields of British Columbia Company, of England, for \$135,000.

Mr. T. H. Fraser, recently arrived from South Africa, has just returned from a tour of examination of numerous copper properties in Western Alberni. He was in charge of Mr. J. F. Bledsoe. He speaks very highly of the district and the many properties he examined, and believes it to be a district of promise.

All Lillooet stocks are buoyant, owing to authentic reports from that wonderful free milling district. Golden Cache stock is in good demand. On the Alpha Bell, a continuation of the Golden Eagle, it is reported that a ten-foot ledge has been struck rich in free gold, and the few shares placed on the market here are, at this writing, going very fast at fifty cents.

The snow has been too heavy to report on the Gold Reefs property in the same district, but mining men speak highly of the claims of this company, which are free milling, and assay well on the surface. Besides these properties claimed as seaboard mines, there are numerous properties in the interior operated by companies who have their head offices in Vancouver. Of these the most prominent at present is the Buffalo claim, owned by the Buffalo Mines Company, of Slocan. It is a very high value property in the midst of properties of high value, such as the Slocan Star, Idaho, Alamo, etc. Considerable



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work has been done on the claim and of the five assays made the average reaches nearly \$250 in silver. Mr. McKinnon, of the Golden Cache mines, is vice-president of this company, and Mr. Alfred Allayne Jones secretary. G.

Kamloops Notes.

NOTWITHSTANDING the severity of the past winter and the unusual heavy fall of snow in the mountains adjacent, persistent prospecting has been systematically kept up. The city of Kamloops being in such close proximity with what is destined in the very near future to be a prosperous mining camp, the advantages offered for the successful prosecution of rock mining in this camp cannot be overestimated. To-day there are upwards of over 600 claims recorded in the Government office in this city since the first record was made in the latter part of July last. Of these Savona, Chris Creek, Hat Creek, Mammoth Gulch, Miller's Creek, Fish Lake Valley, Enderby, Lower Nicola, Spence's Bridge, Quellanlan Valley, Ashcroft and Grand Prairie have contributed their quota, some thing like 150 odd claims. Quartz veins that have been ridden over, walked over, no doubt for years, are now being tested for mineral of commercial value, and in nearly every instance have been found to contain mineral of value. In my last I defined a boundary inside of which I intended to confine myself. I will therefore at this writing take a cursory glance in review of what has really been accomplished in the development of some of the prospects from which favourable showings had been obtained from the surface.

The Python, which is situated about three and a-half miles south and owned by the Inland Mining & Development Syndicate, with W. F. Wood as manager, has a shaft sunk to a depth of sixty feet, from which level a cross-cut was run to the north, some twenty feet on vein matter, showing a thickness of from four feet to eight feet wide, through which runs a pay shute of from four to sixteen inches, assaying from \$5 to \$40 in gold with from 8 to 38 per cent. copper. Hoisting by windlass has become too slow a process, improved gear being in contemplation and will be applied on the resumption of work, which will be in a few weeks.

The Iron Mask, Sunrise, Copper Queen, Bonnie Etta and Bonnie Olive are held by the Gold, Silver and Copper Mining Co., with head office in Toronto, with W. Thos. Newman as resident engineer. On the Iron Mask considerable work has been done, it being situated across the butt of a sag in the hill, an excellent opportunity was afforded for running into the hill from the west. At this point an open cut was made so as to afford drainage; falling back eight feet a tunnel was driven to the north on the strike of the lead for fifty feet on a body of ore averaging from six inches to four feet from which ore was extracted running in value from \$35 to \$40 to the ton. On the ore dump, which measures twenty-six feet in length, seven feet wide by four feet high, there are 127 tons of ore of the above average value ready for shipment.

On the Bonnie Etta a shaft was sunk thirty feet; at twenty feet level a body of ore was struck assaying as high as \$45 in gold 14 per cent. copper. The vein on this claim showed on the surface as a small stringer which gradually widened as depth was gained to three feet, which virtually constituted the pay shute.

The Erin, which lies between the Bonnie Etta and Iron Mask, owned by M. Beattie and R. Blair, was bonded by Mr. Newman's company a few days ago for \$5,000. This move indicates the confidence Mr. Newman has, not only in the locations immediately surrounding those in which he is directly interested, but in the camp. Tenders are in, and have been forwarded to Toronto for approval, for the sinking of a shaft on the Iron Mask 1,000 feet.

On the Chieftain No. 2, one of the group of three owned by R. H. Lee, development has been in progress all through the winter. This claim was found to have been capped by an iron capping forty-three feet thick, through which a shaft was sunk; immediately below the capping the vein matter was struck, which yielded by assay \$20 in gold and 18 per cent. copper, continuing down to the depth of thirty feet further through the same grade on a paystreak, varying in thickness from ten to twenty-four inches. The depth has now been reached, where hoisting by hand has become too slow and expensive, work has therefore been suspended pending the putting in of improved appliance.

On the Canada, the property of King Bros., which is under bond to A. G. Thynne, representing the Canada Prospecting and Mining Company, Limited, of Vancouver, B.C., a shaft has been sunk sixty feet through a highly mineralized diorite. An assay was made from the fifty-seven foot level which gave in all value \$32.02, of which 14 per cent. was copper; from a sixty foot level a cross-cut was driven some forty or fifty feet along the trend of the vein with equally satisfactory results.

The Lucky Strike, which is situated about a quarter of a mile north-east of the Iron Mask group, consists of a fractional claim and shows the heaviest body of high grade on the surface, very little work has been done since it was bonded to Mr. James Cobledick. There is a five-foot body of solid ore in sight at a depth of six feet from the surface assaying \$55 all value to the ton.

The Thora H., in which Everett smelter men are interested, is down with a shaft sixty feet in decomposed quartz and diorite assaying from \$10 to \$40 in value. Development has commenced in earnest on the Pothook and Bonanza, owned by A. G. McDonald and R. H. Lyons. These claims are showing up well so far as the work has progressed. The Charlie mineral claim, owned by J. A. McGee, of Kamloops, Chas. Hayward and Chas. A. Holland, of Victoria, B.C., is capped by a heavy iron capping, which is now being driven through and shows a small streak of mineralized diorite running lengthways into the shaft to the present depth of nineteen feet. An assay was made when eight feet below the surface, giving \$3.10 in gold. Two other veins were traced through this claim of an entirely different character of surface showing. Messrs. J. A. McGee and I. C. Mills, of the Truth Mining Company, are engaged in developing a number of claims in a group and in a very favourable locality, among which are the Truth mineral claim, situated about eight miles south-west and about a quarter of a mile west of the Iron Cap, a proposition on which development work was begun about two weeks ago. At three feet below the surface a sample of the rock was brought to W. F. Wood to be assayed, the result given being 13.70 ounces of gold, equal to \$274.64 ounces of silver, equal to \$4.16; total \$278.80. On the Truth development work has just begun and the surface rock as-

says \$2.50 gold and nearly \$100 in copper. Adjoining the Truth, west, is the La Cigale, and on the east is the Dakota, which butts on the Truth with a heavy magnetic iron capping. The Jubilee is east of the Dakota and joins the Iron Cap; it has a decomposed quartz cap. These form an excellent group and some exceedingly satisfactory results are being obtained from what development has been undertaken so far. The Truth Mining Company owns another promising location known as the Silver King and situated about one mile west of Kamloops from which a surface assay gave \$7.50 in gold. N. Latremouille and Ben Wehrfritz are the owners of a group of three claims in the Jacko Lake section, about eight miles south, the Lucky Dream, the Concord and the Lily of the Valley. On the former a ten-foot hole was sunk through a highly mineralized diorite with such encouraging results as to warrant the erection of buildings for blacksmith shops and shelter for men preparatory to active operations. The Cold Cup, the Little Smuggler and Iron Duke are the properties of a Victoria company of which John Hepburn is the representative here. On the Gold Cup Mr. Hepburn has had a gang of men engaged in sinking a shaft, assays from the rock run high in gold, silver and copper. The Little Smuggler and Iron Duke are of recent acquisition, on the former the rock runs from \$10 to \$75 in gold and copper. The Noonday (No. 2) is situated somewhat to the east of the group I have been referring to. Quartz from this claim surprised the camp a few weeks ago. The proprietors, Messrs. J. K. Mitchell and H. E. Hall, drilled a hole in the quartz for a shot; someone suggested that the drill dust be saved. About five pounds of this was gathered in a handkerchief and brought to town, which was the next day washed in a gold pan in the ordinary fashion. To everyone's surprise, about fifty cents' worth of gold rewarded the effort. A close examination was then made of the pieces of quartz blown out by the shot. A number of pieces were found to contain free gold large enough to be seen with the naked eye. As soon as the news got out a stampede was made for the locality, and every spot where quartz was found was immediately marked with a stake. O. S. Batchelor has the honour to be the first in the camp to handle English money. He recently disposed of a group of three claims in the Jacko Lake section, to A. H. Craven, who represented parties in England, Mr. Batchelor now holds by title of location record the following claims: the Golden Hope, Coyote, Vanconver (2), Solomon Cache, Queen of Sheba, Ora Fino, Campania Before the Dawn, Maude and Atlantis, all of which have been tested by work and assay sufficiently to prove their value. The Pedro Mining Company, which is represented by D. W. Rowlands, M. S. Wade and G. F. Pownall, are doing excellent work in the development of the claims held by them, eight in number. At present they are concentrating all their force on the Pedro which is showing up encouragingly, the character of the ore encountered is a highly mineralized, partially decomposed conglomerate quartz, which yields satisfactory assays in gold and silver. Another local company which is deserving of special mention is the Kimberly Mining Co., the personal being W. H. Fowler, J. H. Lyons and F. C. Carter. This company owns a group of six claims on which prospecting has been carried on during the entire winter with satisfactory results. The rock differs in the different claims. Some show

iron cappings, some quartz and others decomposed diorite, but in every claim the rock is highly mineralized. Several assays have been made and as high as \$75 gold and 18 % copper have been obtained. Jas. H. Russel is, of course, the live man of the camp. Jim made a bona fide cash sale yesterday of the Gold Mask to William Hudson, of Sandon, for \$10,000. It will thus be seen from the amount of claims actually being worked and which have changed hands to practical miners representing mining men that what has been said was warranted by the facts. Present indications point to a prosperous and a very extensive camp.

JOHN F. SMITH.

Boundary Creek Notes.

THE past week's warm spring weather has caused the snow to melt rapidly, so that prospectors are now preparing for the season's work. Not only will the localities already fairly well known have close attention, but much new country will be examined. The Kettle River division contains large areas still unexplored, so prospectors will push out into parts of these, sanguine that many new finds will be made in them. Well up the main Kettle River and its West Fork, up the North Fork, and, too, up and beyond the sources of Boundary Creek and its tributaries, will prospectors shortly be busy. And in anticipation of a large increase in the number of men thus employed, stores, hotels, and other places of business are making extensive provision for the season's requirements, which all are confident will be considerably in excess of those of any previous year.

Although the winter weather has been unfavourable for much work in the camps already in existence in the district, a deal has been done, comparatively speaking, to establish fuller confidence that some good mines will be developed out of what have hitherto been little more than prospects. Not in one camp only, but in several is the outlook distinctly favourable. In Deadwood Camp the tunnel through the Mother Lode ledge, having at length reached the hanging wall, shows ore for 203 feet, which is supposed to be the true width of the ledge at that point.

In Providence Camp the Boundary Creek M. & M. Co. is meeting with increasing success in drifting along the course of one of the ledges occurring in its D. A. claim, the paystreak widening and the quality of the ore improving as the drive is extended.

In Long Lake Camp work on the Jewel is giving encouraging results. The shaft is down 125 feet, and it is now intended to open up the vein by drifting both ways along its course at the 120 feet level.

In Skylark Camp good ore is being obtained in the Skylark claim, where the shaft is down 150 feet and drifting on the lead is in progress. The Last Chance, Canadian and Crescent are also looking well, and there is every indication of this camp making progress during the summer.

In Smith's and Central Camps, too, activity is being displayed, the Last Chance and Republic in the former (with the Golconda group preparing to resume work), and the No. 7 in the latter, all giving a good account of themselves. There are other camps in which work is also being done, and numerous claims too, but the above will indicate that, notwithstanding many drawbacks and hindrances the district is slowly forging ahead, and will probably, during the coming summer, fully establish its claim to the attention of capital.

P.V.

The porphyry hanging wall has been reached at a distance of over 230 feet from the mouth of the cross-cut tunnel on the Mother Lode, thereby proving this enormous ledge, ore deposit, or whatever one may choose to call it, to be 200 feet wide! The manager of the Boundary Mines Company (who own the property) is an exceedingly difficult man to "pump." If he makes any statements at all you may be quite sure that they will not be exaggerated. Thus when I say that he gave it as his opinion—the opinion of an experienced and clever mineralogist—that from the indications of the walls, which are almost perpendicular, the Mother Lode lead was a true vein and would not be found to decrease in width with depth, some importance may be attached to his words. At any rate, if upon further development the Mother Lode shows up as well as it does now it will be not one of the greatest dividend payers, but the greatest in British Columbia—which is saying a great deal.

Last month two promising prospects, the Gold Bug and the Hidden Treasure, in Deadwood Camp, were purchased for the sum of \$10,000 cash by Mr. A. Drucker, M.P. for Northampton, England. The sale was effected by Messrs. Barrett & Hodgson, of Greenwood. Mr. Drucker, besides being the colleague of the truculent "Laby," is a very firm believer in the future of British Columbia as a mining country. He visited the province last year more with the object of shooting (or rather hoping to shoot, for he didn't bag anything worth while) big game, but a few days' stay at McKinney, Boundary and Rossland was enough to convince him that as a field for investment British Columbia at the present time would be hard to beat. Moreover, being an Englishman, and a Conservative to boot, he rather resented the circumstance that our enterprising Yankee neighbours were taking advantage of facts which Canadians and Englishmen had hardly begun to realize, and were, consequently, as they deserve, becoming embryo millionaires. Mr. Drucker has expressed through the medium of the London press his faith in the rich resources of the province, never failing, however, to add the advice that Britishers should "buck up a bit" and not allow strangers to take all the cream from the milk. Mr. Drucker is expected to arrive in Boundary shortly, when the development of the two claims mentioned will be undertaken on a large scale.

The late arrival of spring has somewhat delayed work on the claims here, and miners have been much troubled with water (from the rapid melting of snow on the surface) flowing into the shafts. However, by the time this letter is published work on some twenty of the better-known and more developed claims will be well under way, and I think I am safe in assuming that between three and four hundred miners will be employed more or less continuously during the summer in the camp. Of course I do not refer to assessment work by prospectors in this estimate.

H. MORTIMER LAMB.

OWING to the depth of the snow—the fall this year being very heavy—in the hills really very little development work has been possible in Boundary Creek of late. Recently, however, a force of men were put to work on the Canadian, a promising prospect in Skylark Camp, from which assays have been obtained from surface rock to run 170 ounces in silver and \$40 in gold. Work was also resumed last week on two well-known claims in Smith's Camp,

the Nonesuch and Republic, owned by the Republic Mining Company, with the intention of carrying the present shafts on both properties down an additional fifty feet.

On the 16th of last month (March) the Boundary Mines Company made the final payment (\$4,000) on the Mother Lode. In my last letter I made some remarks about this truly wonderful claim. Since then the tunnel has been driven in fifty feet further across the ledge, or a distance of 220 feet, without yet reaching the hanging wall. Surely this is a phenomenal record. A ledge, with well defined walls, over 200 feet wide, the ore of shipping grade, is not to be lightly spoken of, or discussed except in most respectful terms. The fact that the walls are almost perpendicular is, I have it on expert authority, evidence that the ledge will "go down," according to all the mineralogical science.

On the No. 7 the Boundary Mines Company have been equally fortunate in striking it rich. A shaft was first sunk on this claim to a depth of 140 feet from whence drifts have been run on and along the ledge, and also a prospectus cross-cut in the hope of finding a second ore body supposed to exist. The cross-cut, however, failed to reveal anything worth while, but a marvelously fine vein of clean galena over three feet wide has been shown up by drifting. The average value of the ore, which is concentrating, is \$50. The drift which is now being run on the vein has reached a distance of 140 feet from the bottom of the shaft.

The Boundary Creek Mining and Milling Company are employing a force of fifteen men on their properties adjoining the town of Greenwood. Some very promising ore indeed is being taken from the D. A. tunnel, showing large specks of both native silver and gold. The ledge as exposed in the tunnel is three feet wide with a rich paystreak of six inches. Two years ago ore was shipped from the D. A., the smelter returns being over \$200 to the ton.

Some few weeks ago two prospects, the one in Wellington, the other in Skylark Camp, were purchased by a man named Cotton, of Tacoma, from the owners, at the respective prices of \$100 and \$250. On the strength of his purchase this gentleman has issued the prospectus of and organized the International Co-operative Mining Company, capital stock \$10,000,000. Guileless and gullible people will doubtless be led to buy shares in this absolutely wild-cat concern, solely because the company owns properties in Boundary Creek.

H. M. L.

Ainsworth.

HOT Springs Camp, the oldest camp in West Kootenay, is once more alive. Hotels are thronged with experts and investors who are clamouring for options and bonds.

But the camp being small there are few properties and still fewer owners, and these few having passed through a long, hard struggle to hold what they had the past few years, are not now anxious to give in to the first offer made. The prices at which most prospects are held here are extremely low, compared with the showings of other camps.

Investors, learning this, are coming in now, and paying cash for those that can be seen and are paying down from 2½ to 10 per cent. on those that have too much snow on to examine in order to hold them until such time as they can be looked over

to advantage. There are many first-class propositions still to be had at very reasonable figures.

All the new work now being done is showing very satisfactorily, not only to the properties on which it is being done, but to the whole camp.

There will be many surprises here this season, as the camp has always been called a low grade one, but the fact is we have some properties already that, considering the amount expended on them, are second in value to none in any camp in West Kootenay.

When it comes to size of veins and quality of ore therein contained we are ahead of them all, and development will give us quality as well.

The Black Diamond and Little Donald started up less than sixty days ago under the management of T. M. Gibson, and already over 100 tons of shipping ore have been taken out, forty tons of which have been shipped and smelter returns received, showing 104 ounces in silver and 56% lead.

The British American Gold Fields Company have made the first payment on the Mile Point mine, and now have a force of men at work putting things in shape to push development. Machinery for pumping and hoisting will be put in about June 1st. Albert Stalberg has charge of the work.

Strobeck & Co. have bonded the Gem and Montreal to I. A. Yerex, of Vancouver, for \$7,500, work to commence not later than May 1st. While undeveloped these properties are considered first-class, being situated alongside of and having the same vein as the famous No. 1 mine.

On the Kate L. the vein has been opened in the tunnel in seventy feet from the face. This will no doubt soon be added to the list of shippers from here.

The Jeff Davis is showing some remarkable ore, some of it assaying as high as 68% copper, 340 ounces silver and \$12 in gold. An eighty horsepower boiler, No. 6 Cameron pump and a double cylinder 8x10 hoisting engine, besides 18,000 feet of lumber, have been ordered for this property.

The No. 4 claim, north extension of the Jeff Davis, has been bought for cash by J. N. Knight and work will be commenced in about ten days on it.

The Lotus and Duplex, situated on the north fork of Woodbury Creek, have been sold to an English company.

The Boots has been sold to Minneapolis parties.

The Silver Bell, Bonanza King and Harrison (the latter having the larger part of the Silver Gance vein) have been sold to Louis J. McAttee, of Spokane, Wash., for cash.

The Vancouver House has changed hands. McKinnons selling to Goodenough & King, of Kaslo, who have taken possession. The McKinnons have started the erection of a new house on Front Street, one block up from the wharf.

LaPoint & Houser have purchased the lots on which Rory McLeod's mammoth hotel stood before the fire, and it is reported they will erect a twenty-four room house to be first-class throughout, and to be completed within sixty days. S.

New Denver Notes.

THIS MONTH has witnessed the final breaking up of the winter and the commencement of the more congenial summer. The weather is now warm and fine, and, as a natural consequence, a period of decreased shipments must be apprehended on account of the bad state of the roads. The danger from

snow-slides is very threatening at this time of year, and many casualties have resulted, the most serious occasioning the death of three men above the Slocan Milling Company's concentrator.

Public interest in this section continues unabated and numbers of properties in more or less advanced stages of development are being either bonded or purchased outright every day of the week, so that indications point to a busy and profitable season all round.

The Little Daisy, on Eight Mile, the only gold proposition in the Slocan which has so far demonstrated its richness by actual smelter returns, is reported bonded for \$35,000. A five-ton shipment from this claim showed the extraordinary value of \$124 per ton in gold, the larger proportion of which was present in an uncombined state.

Slocan City and the properties in that neighbourhood are simply booming, and it will be interesting to note the degree to which this inflation will be carried, before the inevitable reaction comes. The town has undoubtedly a great future before it as a railway terminus and transshipping point independently of its mineral wealth, but it is possible to overdo things at the start even in this respect.

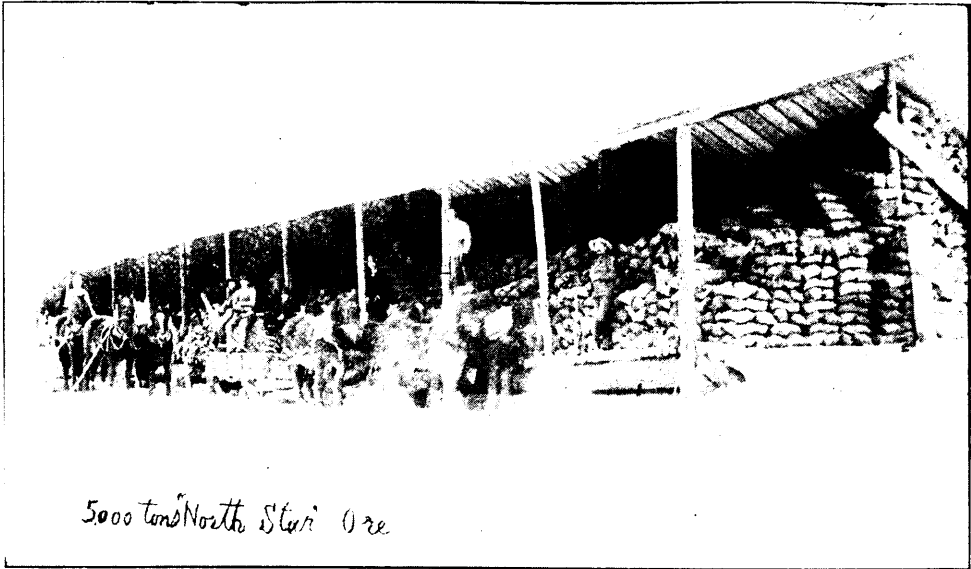
The Sandon townsite dispute appears to have been decided by Judge Forin when he announced in court that the owners of mineral claims had the legal right to eject settlers from their land if they were so inclined. It is probable that after this no question will be raised by residents as to the necessity of paying ground rent when called upon by the owners of the claim to do so.

The waggon road question still hangs fire, notwithstanding its recognized importance to the community. The appropriations for the Kootenay are by no means large considering the revenue derived, and it is a pity the Government cannot see their way to conform to the repeatedly expressed wishes of so many citizens in this district.

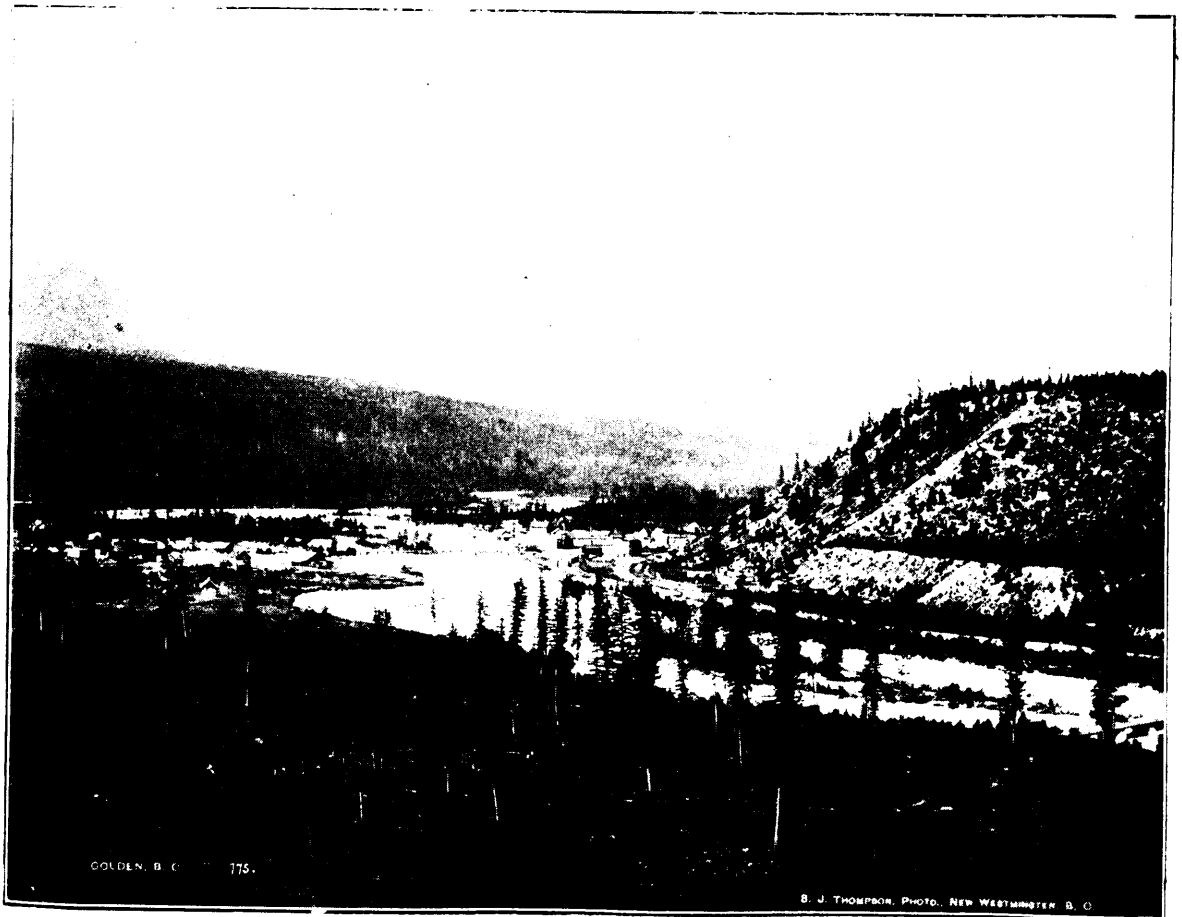
F. HOWARD WEST.

From Rossland.

NOTWITHSTANDING the drawback of continuous snow storms and of generally depressing weather the camp has been active and the month has been marked by many incidents. In the first place it has become known that three valuable and important claims, the Jumbo, the Commander and the Gert-rude, have been placed under option to parties in England. The price named for the Jumbo is said to be \$1 per share, making a total of \$500,000 for the whole property. On the Jumbo a considerable amount of work has been done within the last eighteen months disclosing the existence of a strong body of high grade ore containing some tellurides, and of still larger bodies of low grade ore running from \$10 to \$15. Some trial shipments, amounting in all to about 100 tons, have been made, but so far as we know the smelter returns have never been published. The Jumbo has generally been regarded as a most promising property and no surprise is expressed at its having attracted the attention of English investors. Work on the Jumbo has been carried on throughout by hand, but on the Commander, the second of the three claims mentioned above, a hoisting plant, steam engine, and boiler and pump have been installed. The Commander Company is also incorporated for half a million shares like the Jumbo, and



NORTH STAR ORE BIN, EAST KOOTENAY— 5,000 TONS ORE IN SACKS.



GOLDEN, B. C.

has, according to report, been bonded for 50 cents per share. A shaft of about 200 feet in depth has been sunk on the claim, but as far as we have been able to gather work at the lower levels has been temporarily discontinued, owing to the present pumps being unable to cope with the amount of water that was coming in at the bottom. Some remarkable fine-looking ore running very high in copper has been found, but we believe that no shipments have yet been made. Of the two claims thus described the Jumbo lies about two miles to the west of Rossland, while the Commander occupies ground about three-quarters of a mile east of the town. The Gertrude is situated between the Jumbo and the Rossland town-site, and though as far as we know no very great amount of work has yet been done on the claim, its position renders it a most valuable location. In addition to these three properties at least one other well known claim near the town is now being negotiated for by parties in England but at this moment we are not permitted to mention names. The desirability of constantly introducing fresh streams of capital into the camp and of tapping new springs is so great that much pleasure has been felt at the news of these negotiations, and it is to be hoped that some one at least of the options will be taken up. If additional evidence were required of the solidity of this camp, and of the faith felt in its future by those best qualified to judge of it in the past and in the present, it would be found in the recent purchase by Mr. A. Heinze, the moving spirit and principal owner of the B. C. Smelting and Refining Company at Trail, of the Columbia & Kootenay mine on Columbia Mountain one mile north-east of Rossland. Mr. Heinze is said to have paid \$500,000 for the controlling interest, but figures in such cases are bound to be more or less inaccurate, so we only give them for what they are worth. A great deal of work has been done on the property, and an expensive equipment of machinery, air compressors, etc., have been placed on it by its former owners, a Chicago syndicate. Since January 1st some 450 tons of ore have been shipped from these claims, but this, of course, does not represent anything like the expected output of the mine. According to common report, alongside of a considerable amount of really high grade ore, there are large bodies of ore running from \$12 to \$15 which it is supposed that Mr. Heinze will be able to treat at a profit. The news of this sale has revived the story of the well-known expert who, on being taken out to visit these claims a year or two ago, turned on his heel at the entrance to one of the tunnels, remarking that he had seen quite enough, that what he had seen was not worth seeing. Rosslanders would be more or less than human did they not recall such hasty judgments with gusto.

We now come to the subject of the tests of the low grade ore of the Le Roi which may be described as by long odds the most important and interesting event of the month. It is a fact, we are told, that small independent tests have been made by parties interested in the camp of Le Roi and other ores with a view of ascertaining whether it was possible to concentrate them. But until this month no official tests have been made by the Le Roi or any other company or if such have been made the results have not been published. The initiative in this case seems to have come from Mr. Rust, a well-known Tacoma smelter man, who, by the way, is a director of the Giant mineral claim near Rossland. At the suggestion of this

gentleman the services of the O. K. stamp mill were retained for the purpose of testing several tons of Le Roi ore, and the result proved so satisfactory as to provoke incredulity and almost suspicion. Not only was the suitability of the ore for concentrating established, but it was found that a considerable amount of the value was saved in the form of free gold on the plates. The assay value of the ore experimented with was about \$14 and of this from 65% to 70% was recovered on the plates and otherwise. This result was, of course, eminently satisfactory as far as it went, but in order to make assurance more sure a still more important test has since been made, one hundred tons of ore having been sent down to the O. K. for the purpose. The figures of this second test have not yet been given, but we understand that it was once more highly favourable. It is necessary, of course, to speak of experiments of this kind with due care and caution, and nothing could be more unwise than to jump at the conclusion that all our low grade ores will be amenable to the same treatment. But at all events a great impetus will now be given to experimental methods of treatment, and the day is past when it was enough to figure upon existing smelting charges and humbly resign ourselves to the inevitable exclusion of ores having a less value than about \$20 or thereabouts. Whether the roseate anticipations of some of our newspaper writers as to the erection of stamp mills all over the camp this year, are to be realized or not is quite another thing. It is, perhaps, not out of place to remark here that to the Le Roi people themselves the results of the above mentioned experiments are not of vital interest considering that the latest assays obtained from the bottom of their shaft—at a depth of some 550 feet—have given a value of eleven and a half ounces of gold and we are told they have at least several feet of this ore. It may be added that news has also been received this month of the discovery of a large body of very high grade ore in the Centre Star, but no definite information has yet been vouchsafed to the public as to the intentions of the owners of this claim with regard to shipping or to erecting a smelter in Rossland.

The returns as to shipments of ore from here since January 1st as compiled by the *Miner* show that a total of \$12,550 tons have been shipped, the contributors being about twelve in all. The Le Roi and War Eagle were, of course, responsible for nine-tenths of the output, but more than 1,000 tons were sent out by the Iron Mask and Columbia Kootenay besides the smaller amounts of the seven or eight other mines. During the same period the O. K. milled 1,217 tons and if reports can be believed a dividend from this property may be expected before long.

Some few words must be added as to the incorporation of the Rossland Stock Exchange which, whether for good or for evil, is now an accomplished fact. Some forty gentlemen have up to date joined the organization and a general meeting is to be held to discuss and perfect the necessary by-laws, etc.

R.

Rossland Mines.

SOME idea may be formed of the large amount of machinery which is being placed in the Rossland mines from the following list. The Canadian Rand Drill Company, with offices and works at Sherbrooke, Quebec, has supplied a large portion of

this machinery and it speaks well for our Canadian manufacturers that such is the case:

The first on the list must be the Le Roi, with more machinery than any of the others. It has three air compressors. The first put in was a seven-drill compressor; then one of three drills was added and the new one, a 40-drill compressor, is now being put in place on the Black Bear ground. This is the largest plant ever brought to the Kootenay. It requires 500-horse power boilers. The first hoist was a 15-horse power; then was added a 50-horse power and the new one now being placed is 200-horse power. They also have an electric light plant, tramway and crusher with an order now in for a large crusher with which they will crush all the ore as it is shipped. They have four station pumps and a sinker and thirty slugger drills working in the mine. The estimated cost of this plant is \$150,000. This does not include the building, but the mere machinery of the plant.

The plant of the War Eagle mine consists of a 20-drill compressor, 100-horse power boiler, two 10-horse power hoists, one sinking pump and eight slugger drills. The estimated cost of this plant is \$30,000 without buildings.

The O. K. mine consists of two 60-horse power boilers, one 85-horse power engine, a four-drill compressor, a large 10-stamp mill and four sluggers. The estimated cost of this plant and buildings is \$20,000.

The Centre Star has an 80-horse power boiler, five drill compressor and five drills working in the tunnel. The cost of this plant is \$5,000.

The Josie has a duplicate of the Centre Star plant.

The Red Mountain has an 80-horse-power boiler, seven drill compressor and is working four sluggers besides the diamond drills. The cost of this is \$7,000.

The Cliff has a 50-horse power boiler and four drill compressor, at a cost of \$5,000.

The Monte Cristo has an 80-horse power boiler and a seven-drill compressor, the cost of which was \$7,000. This compressor also drives two sluggers in the Colonna.

The Kootenay and Columbia have a 30-drill compressor, two 100-horse power boilers and seven drills, which cost \$25,000. This plant also furnishes power for the Iron Horse, which mine has two slugger drills, a sinking pump and a 15-horse power hoist at a cost of \$2,500.

The Iron Colt has a 15-horse power hoist and one steam drill, which cost \$2,000.

The Alberta has two Rand drills, and also gets its power from the Kootenay and Columbia plant.

The Commander has a 40-horse power boiler, a four-drill compressor, 20-horse power hoist, sinking pump and two drills. The cost of this plant is \$5,000.

The Crown Point has an 80-horse power boiler, a seven-drill compressor, seven sluggers, sinking pump and hoist, costing \$15,000.

The Palo Alto has a 30-horse power boiler, 10-horse power hoist, sinking pump and one steam drill; \$2,000 was the cost.

The Robert E. Lee has a 10-drill compressor, a 100-horse power boiler, 20-horse power hoist and three drills, costing \$7,000.

The Mayflower has a 15-horse power boiler and a 10-horse power hoist, at a cost of \$1,000.

The Red Eagle has a 30-horse power boiler, 10-horse power hoist and two steam drills; cost of the plant, \$2,500.

The Blue Bird has the same as the Red Eagle.

The Nest Egg has an 80-horse power boiler, a four-drill compressor, 20-horse power hoist, sinking pump and three sluggers; estimated cost, \$10,000.

The Homestake has an 80-horse power boiler, a five-drill compressor and a three-drill hoist; cost, \$10,000. This plant drives one drill on the Gopher.

The Deer Park people are now placing a 40-horse power boiler and a 20-horse power hoist and a sinking pump at a cost of \$3,000.

The Silver Bell has a 30-horse power boiler, and a 10-horse power hoist; cost, \$2,000.

The City of Spokane has a 50-horse power boiler, four-drill compressor and three sluggers working; cost \$4,000.

The Monita has a 40-horse power boiler, 20-horse power hoist, two steam drills and a sinking pump; cost, \$4,000.

The White Bear has a 60-horse power boiler and 20-horse power hoist, two steam drills; cost, \$4,000.

The St. Paul has a 30-horse power boiler and one steam drill. This is a tunnel proposition; cost of plant, \$1,000.

The Georgia has a 25-horse power boiler and two steam drills; cost, \$1,500.

Each mine adds machinery as fast as it finds need for it.

• *Trail Notes.*

THE development work on Lookout Mountain is resulting in a way most gratifying to all interested there or in the town of Trail. On the Joker, one of the claims of the Lookout Mountain Mining Company, the cross-cut tunnel being run at a depth of seventy-five feet struck the ledge at a distance of thirty-seven feet from the shaft and continued in ore for twenty-two feet before the foot wall was struck. The drift was then run for fifteen feet on the ledge, which still showed up ore of good quality. The ore is a fine looking copper pyrites in a gangue of quartz and will make an excellent concentrating ore. Assays show an average value of \$11.25 in gold and from two and a-half to three per cent. copper. The size of the ledge will ensure economic mining, and the nearness to smelting and the character of the ore should make it valuable even at these figures. Work has been temporarily suspended on account of water, but as soon as the season will permit, steam drills and a hoisting plant will be put in and the work pushed.

On the Sovereign, another of the Lookout Mountain claims, about a half mile nearer town, a strike of even greater proportions was recently made. In the tunnel, which is now in about 120 feet, there is seven feet of solid fine-grained pyrrhotite with some copper pyrites, and in each of the two shafts there is from twenty inches to two feet of similar ore mainly in a diorite gangue with some quartz. Assays have ranged to \$80 with an average of over \$20 in gold.

The Canadian Mutual Mining and Milling Company, an eastern syndicate which is believed to have strong backing, has taken up the Little Giant group on East Lookout Mountain. The group, which consists of four claims, the Copper King, Little Vittie, Tillie H., and Little Giant, is situated about two and a-quarter miles from the town of Trail. The ledge is a very strong one, and has been traced for a distance of a thousand feet by means of surface cuts, and has returned average gold values of twelve dollars. Machinery will shortly be installed and a large force put to work. Besides these claims, the com-

pany owns the Beaconsfield, next the Mayflower, and the Minnie, at the head of Centre Star Gulch.

News has also been received of a rich strike on the Jug, a property on the line of the Nelson & Fort Snoppara Railway, about two and a-half miles north of Waneta. A cross-cut tunnel was being driven and when in 175 feet it cut the ledge at a depth of 110 feet and continued in ore for twenty feet. The ledge showed a four-foot paystreak, which gave an average value of \$27. The property which is owned by Toronto people, has machinery at work, and runs a force of twelve men.

Similar news has been received regarding the Aaron group in the Waterloo Camp, eleven miles above Trail. Here the ore was struck at a depth of 150 feet and is exceptionally rich, assaying over \$70 per ton. The group is now under bond to the Lillooet, Fraser River and Cariboo Gold Fields Company.

Isaac Anderson, acting in the interests of some Toronto people, has bought the well-known Hilda claim, about half a mile from the Waneta, from the McCoy brothers. The price is said to be \$15,000. Mr. Anderson also bought the Early Dawn for the same people and at the same price.

The lateness of the season is hindering the development of the newer camps, but an index of the results being obtained in these outlying points may be got from the recent offer of \$150,000 on a thirty-day bond by an English company for the Dundee Company's properties on Quartz Creek. The offer was promptly refused.

The rise of three cents per pound in the price of powder has led to a movement to establish a powder mill in the neighbourhood of Trail or Rossland. Previous to this action on the part of the mine owners of the Kossland Camp, however, the Canada Powder Company had an agent in the field and he has decided to erect a plant at Trail. The mill will have a capacity of two tons per day at first.

The electric light and power plant of the British Columbia Smelting and Refining Company is now in operation and is giving satisfaction. It has 200-horse power, and besides lighting the town supplies all the power necessary for the smelter.

The Electrolytic refinery in connection with the Trail smelter is nearing completion and if the present blockade on the Red Mountain Railroad is removed will be in full operation by the middle or end of next month. In spite of many rumours to the contrary, however, the smelter company do not at present contemplate the erection of a lead smelting plant.

The snow has entirely disappeared from Trail and almost wholly from the hills in the immediate neighbourhood, and many parties have already gone out to do assessment work or to prospect. The Columbia is rising at a rate of eighteen or twenty inches every twenty-four hours, and it is expected that the *Nakusp* will be making the through trip from Arrowhead by the time this goes to press. The increased water is badly needed as the freight blockades have been troublesome for some time.

D. M. WATTERS.

Fort Steele Notes

FROM present appearances there is going to be quite a boom in mining matters in this section the coming season. Numerous inquiries are being made by parties from all over the continent with regard to the mineral wealth of the district, and already

men representing capital are coming into the country so as to be on hand as soon as spring opens, to examine into and invest in mining properties, but owing to the lateness of the season nothing in all probability can be done in development work or prospecting until the end of April or beginning of May. Notwithstanding the difficulties which are at present attendant on the inspection of mineral claims, mining deals are continually being made in the various mineral belts, Perry Creek and the vicinity of the North Star and Sullivan groups attracting the most attention.

On Perry Creek quite a number of claims have changed hands lately for cash, the purchasers being principally Spokane parties. Most of the locations on this creek are being held under bond by outside companies or men representing capital, but in almost every instance the first payment has to be made early in the spring and work commenced as soon as practicable. Consequently there is every probability of a large amount of development work being done on Perry Creek during next summer and there is not much doubt but the result will be the opening up of several good gold quartz properties there. The North Star mineral belt on Huckleberry Hill and the adjoining Sullivan groups have been attracting attention lately, eight or nine claims having been sold for cash to Victoria parties, and a number of others placed under bond, while the second payment has been made by the Spokane company who purchased the three original locations comprised in the Sullivan group, and it is their intention to commence active work on the property as soon as the necessary formalities have been complied with in the organization of the company.

The Dean Mining Company, also from Spokane, have secured the Crown grants for their claims and will commence operations as soon as the weather permits, and there is no doubt some of the other claims in the vicinity will be opened up, the consequence will be the formation of an important mining camp, which will, before long, rival any that at present exists in the sister district of West Kootenay.

Several other mining deals have been made in different parts of the district, the most important being the sale of the Wasa group of claims to some Victoria company. This property is situate on a creek flowing out of the Rockies about fifteen miles north of Fort Steele. Considerable development work has been done on this property, the ore carrying gold, silver and copper.

From Vernon.

VERY little change has taken place since my last, but I should like to correct some slight errors made in my report on the Ruby Gold Mining Company with reference to the names of the claims included in this group, which should read as follows: Ruby Gold, Golden Northern Light, Golden Tiger, Golden Sun Beam, Golden Twilight, Golden Mountain Peak, Golden Lion, Queen of Sheba, besides the Jessie B., and the Gold Magnet, Golden Vein and Cartwright.

The figures of the assay, also, require rectification. Gold, \$53.94; silver, \$7.86.

The Bon Diable expects to strike the lead at the end of the week.

Work on the Silver Star is being pushed on with

all possible despatch, and rock steadily improves in quantity.

The Blue Jay, situated one and a-quarter miles north-west from the city, is a very promising proposition. The character of the ore is quartz with carbonates and grey copper and galena. The paystreak of this mine runs from $1\frac{1}{2}$ to 17 ounces gold, 20 to 60 ounces silver, and the assays, made in London, reached a very high figure.

The Falcon, owned by Mr. T. H. Latimer, is situated north-west two miles from the city. A shaft has been sunk on this claim, which is now down over twelve feet, and the owner intends sinking another fifty feet.

Another promising property is the Eclipse, owned by Messrs. D. E. Snook, G. Milligan and G. Howard. The Eclipse lies three and a-half miles north of the city, on which a shaft of from eight to ten feet has been sunk. The character of the ore has not yet been subjected to assay; it is white quartz tinged with pink and blue streaks. The proprietors intend proceeding with development as soon as the snow has gone.

The Camp Hewitt Mining and Development Company, Ltd.—This company was incorporated last year, 1896, the property being situated on Okanagan Lake. It consists of ten very promising claims, the Gladstone, the Lake View, the Mountain View, the Moss Rose, the Dandy, the Winnifred, the Queen, the Stag, the Coldstream and the Rhodesia.

Considerable work has been done on the Gladstone and the Lake View has a shaft sixteen feet down and is still in iron cap.

There are two shafts on the Gladstone on two ledges, one thirty-eight feet and another twenty-five feet. The Stag has a twenty-five foot shaft on it. Some tunnelling on the Dandy.

There are good, substantial buildings on the Gladstone and the shaft is well timbered.

Various assays have been made, the results of which are as follows: \$45.24, \$34.22, \$52.94, \$71.02, \$47.49. The prospects of this company are very promising.

The Ruby Gold Mining Company, Ltd., have recently added two more promising claims to their number, making twelve claims in all.

Some splendid samples have lately been brought in from their property.

The gold fever has certainly set in in earnest now and there will soon be little left of the surrounding hills for new comers, and we shall be obliged to import timber for claim stakes if this sort of work is to continue.

The Morning Glory mine is situated on the shore of Okanagan Lake to the south-west of the city at a distance of about six miles.

The property was discovered by Mr. A. E. Morden and his sons, who have formed a company called the Morning Glory Mining Company, Ltd.

The claims included in this company are the Morning Glory, the Jumbo, the Daisy and the Evening Star, to which has lately been added the Sarah, upon which free gold has been found that astonishes the town.

The extent of the property is something over 200 acres and contains several very fine ledges.

The quartz is free milling. A shaft has been sunk on the Morning Glory to the depth of eighty-five feet with very satisfactory results. The latest assays made run \$82.72 and \$109.38.

Work has been done on some of the other claims

which give fair indications of something good; in fact, properly worked, there is no reason to doubt but that the Morning Glory Mining Company has a very valuable property.

F. ADRIAN MEYER.

Vernon Mining District.

NO section of the province offers better inducements to-day to the prospector or investor in mining property than the country surrounding this city, says the *Vernon News*. Unlike the better known mining districts of Kootenay, this part of the interior offers a comparatively unexplored field to the searcher after mineral wealth. Until within the last two years or so there had been little or no prospecting for quartz done on the hills around Vernon, and the annual records of mining locations could probably have been easily numbered on the fingers of one's hands.

Since then a wonderful change has taken place. For miles around town in every direction mining ground has been taken up, and every week sees fresh discoveries being made. Several well-organized mining companies have been formed, development work is in full swing, mines have been bonded for large sums, and within a few months some of these mines will be operating stamp mills here, while others will be shipping ore to the coast smelters.

Within a couple of miles to the north of the city lies a rocky range upon which scores of claims have been staked in what are known as the Swan Lake and Fefroy Camps. It is in this group that the Blue Jay and Falcon are situated, the former of which is bonded to an English company for \$10,000, while from the latter an assay was obtained showing \$13,000 per ton in free gold.

Further west, on a continuation of the same range, the Morning Glory and Ruby Gold Mining Companies have each several most promising claims, upon which they are steadily working. These companies are incorporated and have placed their stock on the market under the most favourable circumstances. The rock on all these claims is free milling, and gold predominates.

Further down Okanagan Lake a continuous string of claims brings one to Camp Hewitt, where the company of that name are pursuing operations on an extensive scale. Here the character of the rock changes to a smelting proposition, the ore carrying large quantities of copper and silver as well as gold. From Camp Hewitt to Penticton the country is full of mineral, and near the latter place galena is found in large quantities, though none of very high grade has yet been discovered. To the east and north of Vernon lies a country of equal promise to the prospector.

Three miles or so from town the Bon Diable Companies are at work, while some twelve miles further east the Silver Star Company have a claim rich in pure galena equal in appearance to anything found in the far-famed Slocan district. Mineral of a similar nature has also been found at Round Lake, to the north of the city, and on all these claims men are at present busy at work.

The companies have gone about their business in a systematic manner, and their stock will soon be as well known as that of Rosslund mines. Hundreds of claims have been located during the past year in all directions, and upon nearly all of them development work will be done this season.

There yet remains a large quantity of territory almost entirely unprospected, and we repeat that no other part of British Columbia offers a better field than this for the operations of those interested in mining. The country is easy of access and anything but difficult to prospect. Good water power lies on every hand, and transportation facilities by rail or water render the moving of ores an easy matter.

Vernon has long been known as the centre of the richest agricultural and fruit-growing section of British Columbia, and it now also bids fair to become famous as the hub of an equally famous mining region. We expect a large influx of mining men to the district this summer, and to such we can offer no better advice than to come early and get in on the "ground floor."

From Revelstoke.

THE event of the month has been the strike on the Silver Cup. This claim is situated on the south fork of the Upper Lardeau and gives its name to the Silver Cup group, on which the Horne-Payne syndicate are operating the Sunshine. The strike was made in the cross-cut tunnel at a depth of 300 feet. The vein is three feet wide of solid high grade grey copper and galena. Six tons of shipping ore were taken out in crossing the lead. This vein is not on the main lead, which they do not expect to strike for another fifty feet. This strike is considered fully to justify the expectations of those who have always claimed that the Lardeau contained greater promise of wealth than even the Slocan.

The Great Western Mining Company has been formed to operate the Great Western, Young Canuck and Cracker Jack claims on the north arm of Arrow Lake. The surface indications on these claims are excellent and development work on the Great Western has shown up well. The promoters are, most of them, mining men, and include the original discoverers and locators of the claims. Campbell & Johnson, of the Badshot mine, near Ferguson, have given an option on the property to an American firm for \$150,000 open till July. Development has been going on at this claim for the past three years and there is now some \$50,000 worth of ore on the dump.

The concentrator at the Lanark mine, Lawrie, is finished, and a trial of the flume and machinery went off very satisfactory on the 5th April. There are 12,000 tons of ore ready for concentration.

The Queen of the Hills, an extension of the Great Northern claim, has been bonder by Jas. Staubert, the locator, to J. Dixon, of Vancouver, for \$30,000.

There is a good deal of criticism on the mixed up condition into which the Government have allowed the map of Central West Kootenay to lapse. There is only one Lardeau in the country known to miners, but the Lands and Works Department has managed to get three or four on the map and at the same time have given the real Lardeau River the grotesque and meaningless title of Lardo. In consequence every new comer has to be put through a course of local history and geography before the real state of affairs dawns on him. It is hoped here that in its next issue of the official map of Kootenay these excentricities will disappear.

There is little or nothing going on in the Big Bend country at the time of writing. The Last Chance and Consolation parties are getting out timbers. There is, however, a lot of machinery already on its way

here for that country, and considerable development may be expected within the next few months.

Title To Mineral Claims.

QUESTIONS affecting the ownership of mineral claims under the Mineral Acts are of importance to very many in this province and to not a few outside of its limits; and a consideration of some of the difficulties which beset the makers and dispensers of our law in providing justice in reference to the title to mineral claims, and how these difficulties have been met, will probably not be without interest.

In legislating on matters affecting title, the interests to be considered are three-fold, viz., the Crown, the locator, and other persons afterwards locating the same ground. In the interest of the Crown the claim owner's title is made contingent on his paying an annual license fee, and doing a stated amount of work on the property. In the interest of others who may desire to locate in the same vicinity express directions are provided as to staking, blazing, etc., in order that it may be clear what ground is occupied by any claim. In providing rules and directions to meet these requirements, however, great injustice will, unless guarded against, frequently result to the bona fide locator who has unwittingly omitted some requirement of the act, and whose title is shown to be thus defective, perhaps after he has spent considerable money on the property. To require a rigid adherence to the formalities laid down in the act as a "*sine qua non*," to the validity of a location would render all titles so insecure as to greatly impede the business of mining; and the bona fide purchaser for value without notice of the defects would be in no better position than the locator himself.

It has consequently been the effort of the Legislature from time to time to provide equitable and liberal provisions for the protection of the claimant in good faith against the "jumper" who seeks to oust him on the strength of a technical fault in his location, and at the same time to preserve the formalities essential to locating and holding a claim. Thus, while not abating in the slightest the formalities required to effect a valid location, sub-sec. (d.) of sec. 16 of the present Mineral Act provides that "the failure on the part of the locator of a mineral claim to comply with any of the foregoing provisions of this section shall not be deemed to invalidate such location, if upon the facts it shall appear that such locator has actually discovered mineral in place on said location and that there has been on his part a bona fide attempt to comply with the provisions of this act, and that the non-observance of the formalities hereinbefore referred to is not of a character calculated to mislead other persons desiring to locate claims in the vicinity." The provisions of sec. 9, saving the rights of innocent parties where a free miner's license, has been allowed to expire, are in the same line. Sec. 28 is also a wholesome provision covering a multitude of sins, whereby a party doing and recording the annual work required by the act is regarded as not only showing an honest belief in the validity of his title, but also as having given to the Crown a portion of that consideration stipulated as essential to his title; an act, which, were the matter between individuals, would give him an enforceable contract in equity on the ground of part performance, despite of informality.

There is no doubt that very awkward questions

will arise on the construction and scope of this section, which will for some time make the limits of its remedial effect an uncertain quantity. The section reads as follows: "Upon any dispute as to the title to any mineral claim no irregularity happening previous to the date of the record of the last certificate of work shall affect the title thereto, and it shall be assumed that up to that date the title to such claim was perfect except upon suit by the Attorney-General upon fraud.

Now what is the effect of this section in a case of disputed title where both claimants have recorded their certificates of work? It would look as though the Crown in effect said: "So far as I am concerned, gentlemen, you both have good titles; fight it out between yourselves." If this be so, what is the situation as regards the individuals? Various arguments might be adduced, but it would appear that priority of location should under section 27 be in such case the test. That section declares that priority of location shall govern subject to any question as to the validity of the record itself, and subject further to the free miner having complied with all the provisions of this act. If, then, under section 28, there is an irrebuttable presumption in favour of the validity of the record and compliance with the act upon recording the annual work, it would seem that the priority of location as stated in the preceding section must prevail.

This brings us to consider another question arising under section 28, viz., what defects and imperfections are cured by this section. It may be safe to assume as a starting point that the total omission of any requirement, without which no location can be made, would render the alleged location in question an absolute nullity, incurable by any subsequent act; for instance the omission to erect posts of any description whatever on the ground. On the other hand, omissions or irregularities in respect of matters which are not so fundamentally requisite to all locations, would, it appears, be within the evil intended to be remedied.

To take another case, consider the question of a location made *bona fide* upon ground not open to location under the act. Section 12 defines the land that may be located, viz: Any waste lands of the Crown, and any lands whereon the right to minerals is reserved to the Crown and its licensees; excepting, however, (a) any land occupied by any buildings, (b) any land falling within the curtilage of a dwelling house, (c) any orchard, (d) any land for the time being under cultivation, (e) any land lawfully occupied for mining purposes other than placer mining, (f) Indian, military and naval reservations, (g) "Provided that where any hydraulic mining works established in accordance with the Placer Mining Act, 1891, have been in operation, the land which may have been uncovered by the operation of such works shall not be located or mined upon by any free miner other than the person or persons carrying on such hydraulic mining works for the space of six months next after the same shall have been so uncovered."

Now assume a location made *bona fide* upon one of these excepted lands and extensive work done thereon, is it open to any other free miner to locate the ground and oust the original locator, or does section 28 extend its protection to the prior locator? For instance, A, being engaged in hydraulic mining, uncovers a ledge. B, a prospector, comes along and locates the ground within six months of its being un-

covered. B does this with A's express consent, and, supposing himself safe, spends a large sum of money in developing; whereupon X, knowing the facts, locates the same ground after the expiry of the six months, saying that B'S location is bad, inasmuch as at the time it was staked the ground was not open to location. Does section 28 relieve B? Again, a location is made in good faith upon a military reservation, and a large sum spent in development, but when it comes to be surveyed the fact of its being on the reservation is discovered. Does section 28 help the locator? It is submitted that the proper solution of such questions is to be found in a consideration of whether the land excepted from location in the particular case is so excepted for the protection of private rights or for the public interest. It will be seen that exceptions (a), (b), (c), (d), (e) and (g) above mentioned are for the protection of the private rights of persons already in occupation of the land, whereas exception (f) is a matter of public policy. In Endlich on the interpretation of Statutes the following rule is stated at section 444: "Everyone has a right to waive, and to agree to waive the advantage of a law or rule made solely for the benefit and protection of the individual in his private capacity and which may be dispensed with without infringing on any public right or public policy." Now, if the individual placer miner may waive the benefit of the act in the former suppositious case stated above, it follows that the location is at most an irregularity, not a nullity, and is therefore good as against the placer miner, and is curable as against all others under section 28. In the latter case, however, viz., location on a military reservation, the exclusion of the land from location being a matter of public policy, the location thereon is a mere nullity, and is absolutely incurable. Such a construction, it is submitted, is not only strictly correct, but reconciles the necessities of public policy and the protection of private rights so far as they may be reconciled.

It will be noticed that the remedial effect of section 28 is much wider in its scope than that of sub-section (d) of section 16 cited above. The latter is a gratuitous waiver by the Crown of strict compliance with the rules respecting staking, provided, however, (1) that mineral in place has actually been discovered on the ground, (2) that the locator has *bona fide* attempted to comply with the provisions of the act, (3) that the non-observance of formalities is not of a character calculated to mislead other persons. Section 28 on the other hand applies to all irregularities up to the record of the last certificate of work, and seems, as noticed above, to be an equitable recognition of title on a principle similar to that of part performance.

Nelson, B.C.

R. M. MACDONALD.

Encouraging.

THE following extract from a recent letter speaks for itself. As it was not intended for publication, the names of the writer and his partner are withheld:

"As a subscriber to your paper we feel that we have an interest in it, as well as in its welfare, so the following fact may be of some satisfaction to you: Mr. — —, of this firm, has just arrived from England, where he has been negotiating some business, and he says that he was simply astonished at the number of copies of your journal that he found in the different brokers' offices; everybody seemed to

have them, and he was often met with: 'Yes, we read that every month,' on his bringing it out for inspection."

He fully bears out the opinion that a good deal of English capital will be placed in this province for investment, and, of course, we hope that East Kootenay may receive her share of attention, in which case we shall have no anxiety about her future prosperity.

Of course, our great sheet anchor at present is the Crow's Nest railway. If that goes through this year it means a period of unexampled activity, as the tremendous quantity of coal in the southeastern section gives an unlimited scope for development and work; and, with the great variety of ores that we have, makes southern East Kootenay an ideal smelter site.

Rossland Notes.

THE second series of tests of the low grade ores of the Le Roi, spoken of in my last communication, have now been completed, with results that fully bear out those of the first experiments. Without going into the detail of the whole series the following summary may be of interest:

Net weight of three tests, 102,429.68 pounds, or 51,429-2000 tons.

Value of crude ore per ton per battery sample, \$8.93 1/2	
Gold saved on plates.....	\$200.59
Silver saved on plates.....	3.42 \$204.01
Value of gold in concentrates.....	127.90
Value of silver in concentrates.....	5.43
Value of copper in concentrates.....	7.91 141.24

Total value saved..... \$345.25

Percentage of extraction 76.1. Ratio of concentration 6 3/4 to one. Average of free gold saved on plates, \$4 per ton.

The tailings of the three tests assayed respectively per ton \$4.80, \$5.20, and \$3.40.

The fineness of the gold saved on the plates ranged from 615 to 633. The fineness of the silver ranged from 347 to 374.

Captain Hall, the superintendent of the Le Roi, considers the test a complete success. He estimates that the mine has now in sight and on the dump 35,000 tons of ore suitable for treatment in this way and has made a recommendation to the company to erect a 200-ton mill at once. It is confidently expected that this will soon be done, but so far as can be learned no definite action has yet been taken.

One of the most important sales since the opening up of this camp is the recent transfer of the Columbia and Kootenay group to Mr. Heinze. The group includes the Columbia and Kootenay, the Tip-Top and the Copper Jack. The price is understood to be half a million dollars and though not the largest paid in the Rossland Camp, Mr. Heinze's reputation as a keen and practical business man and his intimate knowledge of the mines and ores of this camp gives it a significance far beyond the actual price paid though that in itself is not unimportant. Shipments will be resumed as soon as the snow will allow teams to reach the ore bins.

The Gunnis-Neame options on the Commander and Jumbo, which matured April 1st, have not yet been taken up. An extension of twenty days was asked in both cases. This was granted in the case of the Commander, but a further payment of five thousand dollars was demanded on the Jumbo, and as this was not paid the option lapsed.

D. M. Linnard, the well-known broker who has been in London, England., during the winter has just returned. Some two weeks ago it was rumoured that he had consummated a deal on the Homestake, but up to the present time he has refused to substantiate the rumour.

The War Eagle, which had been in a rather unsettled state since the sale to the Gooderham-Blackstock people has now resumed regular shipments to the Trail smelter.

The new machinery of the Iron Colt is now in operation, and the hoisting plant for the R. E. Lee, which is now in Northport, will soon be in position.

A section that is now beginning to show up very well is that of Record Mountain, west of Rossland, and some two miles from the Jumbo. Among the claims attracting favourable notice may be mentioned the Daley, which touches on the base of O. K. Mountain, and the Wallingford. The former was bonded to a syndicate represented by Smith Curtis. The Wallingford, which has some 200 feet of underground work done, has produced some of the best copper ore in the camp. The ore appears to be mainly a copper ore with the gold value merely secondary, assays having run from 11% to 20% in copper, with 9 to 12 ounces in silver and \$2 to \$5 in gold.

The total shipments of ore from the Rossland mines from January 1st, 1897, to April 10th, inclusive, have been 15,896 tons, which, on an average valuation of twenty-five to thirty dollars per ton, represents a total value of over \$400,000. It is safe to say that the summer's development will largely increase this, as many mines that have made excellent showings during the winter have been unable to get their product out until the snow had gone. When these begin to ship the problem of transportation will become a pressing one. The C. & W.R.R. is now working up to its capacity, and unless it is standardized cannot keep up with the traffic of the incoming season, and it is open to question whether even with the Red Mountain in full operation the two can meet the demands.

Colonel I. N. Peyton, the president and general manager of the Le Roi, during a recent visit to Rossland said that the building of a smelter by the Le Roi people was only a question of time, and that, though nothing definite had yet been settled, they were at present considering the question of site and capacity. Since then L. F. Williams, one of the owners, is credited with saying that the matter had now been decided and that the smelter would be in operation by the first of October of the present year of 250 tons capacity erected either at Northport or at some point between there and the mine, the final choice of location depending largely on the action of the United States in the matter of tariff on ores from this country.

A stock exchange has now been formed in Rossland and its organization is regarded with satisfaction by all those who have long wanted the brokerage business placed on a legitimate regulated basis. It is understood that there was considerable opposition, but as the opponents of the plan never backed their position in the several public meetings held previous to the formation, it may be considered that the brokers of good standing were a unit in favour of the movement. Two calls are made daily and a scale of commissions has been established. The Exchange occupies the old Shaw Hotel building.

The provisional directors are R. J. Bealey, President; F. W. Rolt, Vice-President; C. O'Brien, Treasurer; Ernest Kennedy, Secretary, with A. E. Smith, W. H. Finlayson, W. A. Campbell, H. C. Walters, and H. E. Cover.

The snow is fast disappearing and it will not be long till this busy town will be in the full swing of the summer activity. The rapid melting of the snow has caused a good deal of trouble to the railroads entering Rossland, so much so that at one time no mail was received from the south for four days. In spite of its many discomforts the spring is hailed with delight by everyone. Already a number of prospecting parties have gone out and the feeling is general that in spite of the great progress already made the real growth of the town is only just beginning. The strong interest being shown by the London market in British Columbia is a cause of great satisfaction, as the development of the past winter has opened up many properties that will stand the searching investigation of English capital and assures Rossland a fair proportion of the incoming capital.

It may seem rather late in the day to return to the often-discussed question of the permanence of the Rossland Camp. But the opinions have been so varied, ranging as they did from the extreme pessimism of routine science which could see no good in new conditions to the exuberant promise of the boom special editions, that the following expressions of opinion given by Dr. Willis E. Everett at a meeting of the Northwest Mining Association have the very greatest value, even at this date.

He said: "I think that I can give you a better idea of my investigations by a copy of my report in part to a foreign syndicate who contemplate investing here. This, however, applies to the Trail Creek district, but applies to a wider field as well."

"I have gone down to the bottom and examined the great mines of Trail Creek—some of them being 500 feet down 1,100 feet in the solid rock—and their quantity of ore in actual sight of an actual value of \$30 per ton is so enormously large that in order to believe this statement one must actually see the ore bodies themselves."

The mining possibilities here are something great, something so entirely out of the way of ordinary mineralogical conditions that not until one arrives here upon the ground can he fully realize what the true conditions of affairs really are. The gold is here and it is rich in gold; that much is known and certain but it exists in an eruptive rock, which is a true gabbro though it is locally called a diorite, which is a mistake microscopic examinations can easily prove. . . . The gabbro is of a character of eruptive rock which is deepseated and indicative of permanence and very great depth—the ore exists in lenses, shoots and single walled fissures radiating diagonally throughout the great faults of the country rock; that is, it is in a new mineralogical condition to science—the principal pay ores being found on the hanging wall."

Henry E. Croasdale, president, Nelson; W. E. Mann, vice-president, Kaslo; and T. G. Proctor, vice-president, Balfour, of the Kootenay Mining Protective Association, visited the city as a delegation from the association. After an informal meeting in the Allan House, April 13th, a public meeting was held in the rooms of the Stock Exchange on the afternoon of the next day W. H. Stevenson acting as president of the meeting and Mr. Corbin as sec-

retary. Mr. Proctor, Frank Loring, Mr. McNeill and others spoke at length of the great need of an association for the protection of the mining interests especially from adverse legislation and emphasized the need of making the qualifications of membership such as would make the list a guarantee of square dealing. A committee of five was appointed to proceed at once with the organization of a Rossland branch of the association, and the first meeting of the association was set for some time in June at Rossland.

D. M. WATTERS.

A Worthy Company.

THE New Victor Mining Co., Ltd., is a company recently formed on lines which commend themselves to us. In the first place the amount of capital is moderate, \$175,000, and the shareholders will therefore derive a full benefit from any success attending the operations of the company. In the next place, the company seems to have been incorporated for the purpose of mining, and not for stock speculation. We find pleasure, therefore, in giving the following particulars:—

The New Victor Mining Co. own the following claims, situated on the Wild Horse Creek a branch of the Salmon River, in the West Kootenay Mining division, viz. three full sized claims, comprising about 156 acres in all. The claims are the Royal, New Victor and Excelsior.

From present indications they promise to become some of the best producers of that camp.

The lead was discovered on the bank of a small stream running through the New Victor, and is so situated that work can be started in the vein. The pay streak is about ten inches wide, and the vein four feet and a-half wide, highly mineralized.

The vein has been traced for 800 feet, and assays from each end as follows:—At the discovery post \$70.25 returns from the Nelson smelter, \$72.25 according to assays of J. A. McFarlane, Vancouver, and 800 feet from discovery post \$28.70 according to assay of W. Pellew Harvey, Vancouver.

The company is now incorporated by Vancouver parties. The low capitalization should be a strong recommendation to the most conservative investors. It is capitalized at 700,000 shares, 25 cents par value, making the capital stock \$175,000.

Work will be started on this property on March 30th, and the company expect to have their first car load of the ore shipped by about May 1st.

The Ruth Mine.

IN our last issue the Ruth mine, through a printer's error, was represented as located near Golden. It should have been Sandon. We regret the mistake, but may remark that although the mine named after little Ruth is situated near Sandon it is likely to prove a "golden" enterprise to its owners.

A Useful Book.

WE have received a copy of a neat and handy little volume entitled "Gold and Silver Ores. What is their Value?" by W. H. Merritt, F.G.S., which contains a deal of useful information compiled in a clear and concise manner. The little work is sold at 75 and 90 cents a copy and no prospector should be without it. Messrs. T. R. and J. P. Clougher, Toronto, Ont., are the publishers.



MULE TEAM HAULING FREIGHT.



PACK TRAIN--BRITISH COLUMBIA.

The Crow's Nest Railway.

SPEECH BY SENATOR MCINNES.

THE following speech of Hon. Mr. McInnes, Senator for Victoria District, urging that the Crow's Nest Pass Railway be built and operated as a Government work is given at length, omitting interrogations and interruptions of other hon. senators. The question of Government ownership of railways is one on which there is much difference of opinion, but the speech is full of force, and will, without doubt, be carefully read by all interested in the welfare of this province:

"It was not my intention to take any part in the discussion on the address in reply to the Speech from the Throne, until a paragraph appeared in the *Ottawa Citizen* setting forth certain remarks made on the floor of this House by my hon. colleague from Victoria, and if those views attributed to him are correct I am bound to say a few words on the subject, as I hold diametrically opposite views. It appears from the report that I refer to, that while discussing the paragraph of the speech relating to the extension of the Intercolonial Railway from Quebec to Montreal he referred to the proposed Crow's Nest Railway from Lethbridge to the Coast and warned the Government not to build that road as it would be an expensive undertaking and an unnecessary drain upon the resources of the country.

* * * * *

"I was not present when the hon. gentleman made his speech. The paragraph I allude to appeared in the *Citizen* of April 2nd, and is as follows:--

He warned the Government that if they build the Crow's Nest Pass Railway with public money, there would be no end to the expense. The road should be constructed by private enterprise

* * * * *

"I believe firmly, and have for many years believed in the nationalization of every railway and every telegraph line in the country. There is a difference of opinion as to that policy, but I believe the day is near at hand when the Government control of such works will be an accomplished fact. I hope to live to see the day when that will be the case. I have seen, and hon. gentlemen present have nearly all seen, the abolition of toll gates on gravel roads, macadamized roads and plank roads, and I believe that we, in the most advanced portions of the Dominion, will a few years hence look back and wonder how we submitted so long to the present improper system of taxation on the travelling, commercial and industrial community. I believe the day is fast approaching when we will look upon the ownership and operation of railways and telegraphs by private corporations, by which millions of dollars of the people's money are paid to shareholders and promoters in dividends, as a thing of the past; that such works will be operated by the Government in the interests of the great masses of the people and not in the interests of corporations. With reference to the Intercolonial Railway, we all know that that road was not constructed as a commercial enterprise. We know that it was built more as a military highway than anything else. It was located away back in the interior of the provinces of Quebec and New Brunswick, through probably the least productive portions of the country in both provinces. But whatever commercial benefits the Government could derive from the operation of that road were destroyed a few years ago by the late Government subsidizing the Short Line of the Canadian Pacific Railway, not only through our own country,

but, I understand, through a portion of the neighbouring republic. I am not at all averse to the Government extending the Intercolonial Railway from Quebec to Montreal, if by that means they can secure a larger portion of the commerce of the Maritime provinces and put that road on a more substantial commercial basis. I see no reason why we should have any delicacy at all in using the public money in the interests of the country, even should it clash, to a certain extent, with the interests of the Canadian Pacific Railway, or the Grand Trunk Railway, or any other railway corporation. In the past, every public work that was likely to pay anything of a dividend was handed over to private corporations, and it was only those public works which were run at a loss to the country that were retained by the Government. Unfortunately the Intercolonial Railway was one of those public works, and I venture to say that if the Intercolonial Railway paid a dividend on the money invested after paying the expense of operating that road, it would have been handed over long ere this to some large corporation. Most people, when they think of the Government building a railway, are confronted with the Intercolonial Railway and asked, "Are you going to build another railway that will cost the country millions of dollars in construction and perhaps hundreds of thousands of dollars of a deficit every year." That condition cannot by any possibility apply to the proposed railway from Lethbridge to the Pacific Ocean. I have some knowledge of what I speak, and I say that from the day that road is built as a Government work it will pay a handsome dividend on the amount of money expended upon it. The Canadian Pacific Railway, for a great portion of its route, passes through an unproductive country, yet the road pays a handsome dividend, but from the time you leave Lethbridge and pass through the Crow's Nest you will enter upon the coal lands, which from reports of competent geologists and others who have examined them, are pronounced to be the richest on the globe. The Canadian Pacific Railway Company, a few days ago, issued a report, a copy of which I have here, in which they describe the enormous body of coal which lies just beyond the Crow's Nest Pass in British Columbia. This is what they say:

A most phenomenal discovery of coal has been made in the Crow's Nest Pass of the Rocky Mountains. Here no fewer than twenty seams are seen to outcrop, with a total thickness of 132 feet to 448 feet.

* * * * *

"Some of these seams I am informed are thirty feet thick, and I understand on the most reliable data that I can get, furnished by our own geologists, that this coal area extends from a quarter to a half a million acres. I am also happy to say that from tests made in this country and elsewhere, the coal is declared to be equal to the best Welsh cokeing coal. Immediately after passing the coal belt, you enter into one of the most highly mineralized countries on the globe, extending from there to within a few miles of the Fraser River, at Hope, a distance of about 600 miles. Rossland is at the present time the centre of the mining interests in West Kootenay, but from developments that have gone on, and are being made west of that for some three hundred miles, I believe that Rossland will be of secondary consideration within the next year, or certainly within the next year and a-half. I do believe that every mile of that country from the time you leave the coal belt that I have mentioned, until

you get down to Hope, will be pouring in its wealth at stations located every four or five miles. Every mile of that country will contribute, and contribute largely, to the support of the road. Therefore I say that, as a commercial enterprise, it on no other ground, the Dominion Government ought to take possession of that Pass and build the railway from Lethbridge down to the Coast. They will be justified in taking that up and building and operating it.

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"A portion of it is covered by a charter, but no matter what charter may be given, the Parliament is supreme and can build whether a charter exists or not. But why I urge that that road may be built and operated and held for all time as a Government road is that we have only four gate-ways through which a railway can be built from the east into British Columbia. Away in the far north you have the Pine Pass, further south the Yellow Head Pass, 150 miles south of that the Kicking Horse Pass, now occupied and controlled by the Canadian Pacific Railway, and about 125 miles further south again we come to the Crow's Nest Pass, the best of all the passes. From information that I have received no later than to-day from gentlemen from Lethbridge and Fort McLeod, I learn that there is only room for one track for miles through that pass. It is a narrow gorge, it is actually a crack in the mountain there, and on each side they tower up 3,000 and 4,000, and in some places 500 or 600 feet perpendicularly. Owing to the fact that we are so situated that we have only four passes by which you people in the east can gain access to our province by rail, I claim it is the duty of the Government, in the interests of the people of this country, to hold for all time those passes. They could build railways through them and give equal running powers to all railways that see fit to connect with them. Were we situated as you are here, in Eastern Canada, it would be entirely different. You can build railways in any direction you please. You have no physical difficulties to encounter such as are met with in penetrating the Rocky Mountains. I say, therefore, as a commercial enterprise, not only in the interests of Manitoba, the North-west Territories and British Columbia, but in the interests of the whole Dominion it is the bounden duty of the Government to build and control that road. I have no hesitation in saying, from the developments that have taken place in British Columbia from one end to the other, extending over an area of 400,000 square miles, that there is scarcely ten square miles in that province but contains gold-bearing and silver-bearing quartz, copper, lead, iron and other metals in immense bodies. The output of our mines during the last year, was not up to the expectations of a great number of us, but it can be easily explained. In British Columbia, as in all other gold-bearing countries where they first discover gold in the sand and in the gravel beds of extinct river channels, gold could be got out very easily and returns were obtained almost in a few days' or a few months' work. Like California, Nevada, Australia and South Africa we have been in a transition state from the primitive way of mining gold in the gravel benches and in the old streams there. We have at last turned our attention to quartz mining, which is of a permanent character and will go on for generations, but it requires a great deal of time and capital to develop those quartz mines. Quartz ledges have to be followed down 15, 20 or perhaps 100 feet in some in-

stances, before a sufficient bed of paying ore is reached, and as a general thing the further down they are driven the richer the lodes become. A great deal of ore is refractory. The precious metal is found in combination with iron, lead and copper. It is not free milling ore. Smelters have to be erected at a very great cost, and I am happy to say that, while most of our ores are not free milling, they carry such a large percentage of copper and lead that it pays for the mining and smelting and other expenses connected with it, and the miners have the gold free for their profit. That is why I say that as large a return has not been made as many of us expected during the past year from the amount of development and the amount of attention that has been called to that portion of the Dominion. I hold in my hand here the report brought down by the Minister of Mines in the province of British Columbia. It gives one an idea of the enormous strides being made in the mining of precious metals in that province. The returns are for the years 1895 and 1896. In gold placer mining, in 1895 there was \$481,633 worth of gold produced; last year the production had increased to \$544,026. In quartz mining, in 1895 we produced \$785,271 worth, and last year the output had increased to \$1,244,180. In silver the output in 1895 was \$077,229, last year it was \$2,100,000. In copper in 1895 the output was \$47,542, last year the output was \$190,926.

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"Our total output for last year was within a few dollars of \$5,000,000 in gold, silver, copper and lead, and that is merely the beginning of an enormous output in the near future. I would draw the attention of the House to a peculiar fact: you rarely hear anything about our rich silver mines. It is all about our gold mines. Up to the present time, during the last two years, from \$2 to \$3 worth of silver has been produced in that province for every dollar that has been produced in gold. People are bewitched by gold. Demonstrate to investors that you can make \$100 per day for twenty years in a silver mine, and take a gold mine and demonstrate with equal certainty that you can make \$50 per day, and you will find that nineteen out of twenty will take the gold proposition in preference to the silver one. What I wish to call attention to with reference to silver mining is that the lead mined in connection with it last year amounted to \$748,000. Our silver-bearing ore is argentiferous galena. Nearly one-third of the total value of our silver ores is in the lead they carry.

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"In the past nearly all the silver ore has been shipped to the United States.

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"The duty on the lead was three-quarters of a cent per pound and I am sorry to see the proposed amendment to the tariff in the United States will raise it to one and a-half cents a pound.

* * * * *

"The duty is on the amount of lead the ore contains. Notwithstanding that, I believe our silver mines are so rich that they can afford to pay that extraordinary duty. I am satisfied also that the raising of the duty on our lead will result in inducing British capitalists to go in there and establish smelters to do all the smelting in our own country. A few years ago, when advocating the establishment of a Dominion mint here, I remember making a statement, and I think hon. gentlemen will find it recorded in the official report: I then predicted that

within five or six years, in all probability, the province that I have the honour to represent would be producing probably four or five million dollars in gold and silver. I remember distinctly that my hon. friend the Secretary of State, now in front of me, thought that that was a very bold statement; those are the very words he made use of. He thought, doubtless, that I was drawing on my imagination, but I am happy to say that that prediction has been more than realized, and I know there is no hon. gentleman in this chamber better pleased with the result than my hon. friend is. That progress has taken place in the last few years; sufficient development has gone on there within the last year or two, and English capital has poured in there, to develop our mines, and I predict that inside of five years the province of British Columbia alone will be pouring into the markets of the world from thirty to fifty millions a year. You talk of Africa; you talk of Australia, but I believe that they will not be in the race in the next ten years with our province. We have everything there in our favour. We have ten times the area of mineralized rock, bearing gold and silver and copper and lead, that they have in Australia or in Africa. And the conditions are favourable to us in British Columbia—more favourable, I believe, than in any other portion of the globe. We have one of the neatest climates in the world. In Australia one of the great drawbacks is the want of the prime necessity of life, water. In British Columbia we are supplied from the eternally snow-capped mountains the whole year round. Timber can only be got at an enormous cost in Australia and Africa. In British Columbia you find, right over those mines, as fine timber as can be had in any market of the world. And taking that into consideration, and the favourable climate where men can work full time the year round, the outlook could not be better.

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"Therefore I say, the outlook in that province is brighter to-day than in any portion of the British Empire. In the past, until a year or a year and a-half ago, from the fact that our ores were not free milling ores, we could not get an English capitalist to invest one dollar. He would invest his capital in Central America, and South America, in every two-penny-half-penny country, but not in British Columbia. But when one or two of our mines were developed by British Columbia and United States capitalists, they then took hold of it, and that stream of gold that was pouring into Australia in the past, and to Africa later for the development of their quartz mines, is now pouring into our country, and I believe such development will take place in the near future as will place us in the high and proud position of being one of the greatest, if not the greatest, gold and silver producing country in the world. I am not drawing upon my imagination. The developments that have taken place warrant every statement I have made on the floor of this House. I therefore say that I believe it to be the bounden duty of the Government to build that railway. It is not, as I said before, in the interest of British Columbia merely, but in the interest of the whole Dominion, and instead of being a drain on the resources of the country and on the tax payers of Canada, it will be the means, even directly, of easing them of a great deal of the burden they are now bearing. What position will we be placed in if that road is built? The people from the east here will be able to take advantage of their railways. They will have the benefit of the Canadian Pacific Railway

that will connect with the new line and goes now to Lethbridge. Before the road is completed from Lethbridge to the Coast, the Northern Pacific and Great Northern will be in there and will cheapen transportation of every kind, thereby not only conferring an immense advantage on the Pacific province and the Territories, but on the most remote eastern provinces in this Dominion. I, therefore, trusts that in the true interests of all concerned, the Government will see that that road is built and constructed and operated by themselves. I quite agree with the statements made by some hon. gentlemen, that if it was built on the same extravagant scale that the Intercolonial Railway was built, and if it was operated in the same way, I would not be so sanguine of the good result that would accrue or flow therefrom. But my idea is simply this, that that road ought to be built and that it, and the Intercolonial Railway as well, should be placed under the control of commissioners, men disconnected and dissociated every way from politics, that it cannot be used as a lever for any party or any Government that may be in power. It is a terrible commentary upon our people if we are not sufficiently honest to build a railway and operate it as well as a private company. I will refer to my hon. friend, the Leader of the Opposition in this House: he has visited Australia, and I draw his attention to this fact, that nearly all the railways in the Australian colonies have been built by the respective Governments and more than half of the entire revenue of those colonies is derived from railways. Many of those colonies had borrowed money at a very high rate of interest in England, and not only have they paid the interest on the money they borrowed, but in some instances they have had a handsome surplus. If they can do that in Australia, it is a sad commentary on the people of Canada if we cannot do as well as they have done. It may not be known to many hon. gentlemen here, but it is a fact, that, owing to sectional jealousies and rivalry between the colonies of Australia, they have different gauges for their railways. The result is that freight cannot be carried from one colony to the other without being transhipped. Notwithstanding all that, the railway lines pay over and above running expenses, in many instances, more than the interest on the money borrowed. If for no other reason than to see a better railway system prevailing in Australia, I should be glad to see the Australian colonies federated as we are in Canada. I may add, in Cape Colony the railway lines are owned and managed by the Government. Let me call the attention of hon. gentlemen to the condition of affairs in England. Less than twenty years ago the British Government took possession of every telegraph line in the United Kingdom, and the result is that you can send a message of twenty words for the same price that we have to pay here for ten words. Not only that, but nearly every post office in Great Britain is a telegraph office. They quadrupled the number of telegraph offices when they took possession of the telegraph lines, and the income from the telegraphs there pays a handsome dividend on the amount of money that the Government spent in buying out the old companies. On the continent of Europe, the Governments in many instances control the railway lines. It is so in Italy where they have one of the finest railway systems in the world. Many lines in France and Germany are owned and controlled by the Governments of those countries. If they can build railways in those old countries of Europe, I see no rea-

son why we cannot do the same here. If it is to their advantage to build and operate the roads in the interest of the people, I ask, in the name of common sense, is it not equally in the interest of the great masses of the people of Canada, in the new portions of this Dominion, that the railways should be built and operated by the Government for the development of that great western portion of Canada? I have been all over the Dominion and I am familiar with its resources and the conditions prevailing from Prince Edward Island and Cape Breton to Vancouver Island, and I unhesitatingly say that the future hope and glory of this country is in that far western Pacific province. I predict that there will be a larger immigration into that province—probably ten or twenty for every one that will go into the rest of the Dominion—for the next five or ten years.

"We are in close proximity to the illimitable plains of the North-west Territories and Manitoba, the finest wheat-growing country in the world. We find now that it is very much cheaper to buy wheat and flour in Manitoba and the Territories than to raise it ourselves. The progress and prosperity of British Columbia will be of inestimable value to the North-west Territories and Manitoba.

"The distance is in the neighbourhood of 700 miles, and according to the estimates made by engineers who have gone over the different proposed routes, the total cost of constructing the line will not exceed fifteen millions of dollars. As a further justification for asking that the Government undertake the construction of that road, I may say that I have returns from the departments here showing that for

the last ten years, per capita, our province has paid no less than \$8,422,000 more than an equal number of people in any of the other provinces.

"I arrive at that from the returns I have received from the departments here. These are official figures. I take the responsibility of giving them, and if hon. gentlemen dispute them I am prepared to furnish details.

"I can show that the figures which I give and the deductions that I draw from them are perfectly correct. Taking the annual grant that we get from the Dominion Government for the support of the Local Legislature, and including our share of interest on the national debt, the salaries of judges and officials, every dollar that can be charged against our province in any form or shape, we have, in the last ten years, contributed to the Dominion treasury no less than \$5,440,633 more than we have received from the Dominion.

"I include in that estimate our proportion of the interest on the national debt, of which the Canadian Pacific Railway represents about one-third, and we all know that of the sum paid on that account we in British Columbia are paying our portion, and a great deal more. It has often been stated that the Canadian Pacific Railway was built for the benefit of British Columbia. That statement I emphatically deny. It was one of the conditions on which we entered Confederation. Why was the Intercolonial Railway built at a cost of over fifty million dollars to this country? Was it not one of the conditions of Confederation? It would be just as reasonable to

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By ARCHER MARTIN,

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The next number of the **Directory of Mines** will be issued about 10th May. Printed forms for filling in the necessary information about minerals may be procured from any of the following parties:—J. F. Smith, Kamloops; G. E. Grogan, Revelstoke; Wm. Meadows, Kaslo; D. F. Strobeck, Ainsworth; Howard West, New Denver; D. M. W. Watters, Trail and Rossland; H. Mortimer Lamb, Greenwood City; T. T. McVittie, Fort Steele; — Thompson, Alberni; F. Adrian Meyer, Vernon; J. H. Clements, Ashcroft; Wm. Parker, Deer Park; Slovan News Co., Three Forks; H. G. Parson, Golden; Gid. R. Propper, Grand Forks; or address direct

EDITOR "DIRECTORY OF MINES," P. O. Drawer 57, Victoria, B. C.

charge the cost of the Intercolonial Railway to the Maritime provinces as to charge the Canadian Pacific Railway to British Columbia. Without the Canadian Pacific Railway British Columbia would not be a portion of the Dominion to-day, and Canada would have been the loser. I am not disputing that the union has been a benefit to British Columbia, but what I say is this, I take the national debt and give an estimate of our population furnished me by our Statistician. He put it at 140,000, though I think we have a little more than that. Allowing for our share of the interest on the national debt, and every charge that can be made against the province, we are losers by \$5,440,633 during the last ten years.

"There is another reason why I say that the Dominion Government ought to build that road, and that hon. gentlemen in both Houses should support them in doing so. We are entitled to it from what we have done, and from what we are absolutely certain to do in the near future. While my hon. friend from Victoria and myself generally agree on most subjects, that is one matter on which we will have to disagree. Owing to the reasons I have given, more particularly that we have only four passes through the Rocky Mountains through which railways can be built, I believe the work should be constructed by the Government."

* * * * *

Random Thoughts.

I HAVE read with interest from time to time in the columns of the *Aetod* the different ideas therein expressed regarding the wholesale incorporation of mining companies which at the present time is sweeping over the country like a tidal wave.

To my mind this craze is similar to, and carried on on much the same lines as the real estate furor which—according to its ending—practically devastated the entire western country a few years ago.

Like everything else on this mundane sphere, such things have an end and the end generally leaves a long line of mourners in its train.

To try to get something for nothing, or endeavour to realize handsomely on a very small outlay are human failings, hence the real estate fiend in days gone by, and his twin, the irresponsible mining promoter of the present, by ways that are not strictly above board and tricks which barely keep them out of the law's clutches, exert their influences to get the nimble dollar from the uninitiated.

Were the public to take the trouble to investigate, many a dollar would be invested in mining legitimately which now only finds its way to the pocket of the shark. Does it not appear ridiculous to compare a well developed mine which has paid tens of thousands of dollars in dividends and having as many more in sight, worked on a strictly proper basis, every move of the management being made on purely business principles, incorporated for \$500,000, with a score of "wild cats" in the same district which have never produced a pound of ore and are stocked for \$1,000,000 or more?

In speaking of such procedures, a short time since a party remarked in my presence, "Well, the human race are just like sheep; they will crowd together, and many of them will get smothered." Just so, while the conservative and painstaking journalist is advocating caution and discretion, the loud-mouthed faker is industriously disposing of his blocks of shares.

The "ornamental director" although the scheme is as old as the hills, is still used as a cat's paw to rake roasted chestnuts from the fire, and no doubt, in the not very distant future many a man of influence whose name appears on the prospectus will seriously regret that he allowed it to be placed there.

British Columbia, or that portion of the province designated as East and West Kootenay, is now conceded by very conservative people to show every indication of being second to no other mining country on the globe. The world, it appears, is beginning to acknowledge this as a fact, and I doubt if there is a mining section on the planet but what has representatives here.

So far as known their ideas of the future possibilities of the country tally with those of the sanguine pioneers who first blazed the trails and in their humble way brought the riches of the different districts to the light of day. Following the hardy pioneer and prospector comes capital to develop. Railways and steamers take the place of the pack train and canoe. Developed mines keep streams of ore going to market. Smelters, concentrators and samplers are built and the fame of the country goes abroad. Then comes the sharper. On the strength of what faith, energy and capital have done, he springs his game and seeks for the innocent and confiding.

When the end of such practice is reached, and it must end sooner or later, mining and all that pertains to mining has received a blow from which it takes a long time to recover.

Every person who has the industry of mining at heart should encourage a respectable journal to puncture the many mischievous bubbles floated on the great of mining and prove to the world that the business is as legitimate as any when carried on as a business enterprise.

I have also taken considerable interest in the articles you have published concerning co-operation in mining. Many of the ideas are excellent and should be carried out practically.

A number of incidents have come under the writer's observation during many years' experience in the mining regions of the far west. One plan was much in vogue in Colorado twenty and more years ago. Four or six working men would pool together. Two or three would work for wages and supply the others with the necessaries to prospect and develop claims, each sharing equally in all finds and revenues. The bonanza firm of Mackay, Fair, Flood & O'Brien, of the Comstock, Nevada, was much on this principle. Flood & O'Brien ran a small saloon in San Francisco, while Mackay & Fair were "up on the ledge." They stood in together, and the world knows of the fortunes they made.

Prospecting companies, as a rule, the writer does not approve of. They are liable to lead to endless trouble and litigation provided one or more dishonest persons are employed to do the prospecting.

Should a man be hired by the day or month to prospect for and find mineral for such a company, there is liable to be a time in his experience when he will sit on the brink of a hole he has excavated and soliloquize thus: "Now I have no doubt made a great discovery here; if I locate and record it for the company I simply get my wages; if I cover it up, go to the company and call for my time, I can com-

back and take it up for myself." How often is this likely to happen? The company provide everything, even to paying the man wages, and get, nothing or a lawsuit.

Take from the mining industry the glamour which always surrounds it, and there is a whole lot of wisdom in the saying that there are but two persons who should engage in the business—the person who has a certain amount he can afford to lose and the person who has nothing. A happy medium can be reached if these two persons come together, for I firmly believe that every one in a mining district should chance what they can afford to lose in grubstaking some prospector who has nothing but his knowledge and his time.

In every instance, however, where a party is grubstaked, written articles defining the contract should be made out, each person interested retaining a copy.

By taking these precautions much annoyance and bitter feelings may be avoided. A clause regarding acquired rights can also be inserted, if need be, for frequently a prospector may, by lending some assistance to a companion in the hills, acquire an interest which he may not consider his backer is in on.

An estimate has been published stating it is not improbable but what Kootenay will have a million population by 1907. This, at first sight, appears exaggerated, but when one comes to consider the vast area of the country and the immense stretches which are as yet practically unexplored and have no population, and other portions whose possible riches are known and are filling up with people each season as development progresses, then take into consideration the extensions of railway lines projected, the building of roads and trails to places more remote, the estimate does not seem so much out of the way after all.

That this great population will all be actively engaged in mining is out of the question. The business of mining creates a necessity for so many other occupations, and so many things which appear to be worthless when but a few people inhabit a country will have a wonderfully appreciated value when the entire region is teeming with a prosperous population.

It is not to be expected that every one who comes to a mining section comes with the intention of engaging in mining direct, but, as a rule, the resources are so varied they can generally make their own choice of a vocation. To mention even a portion of the list would require altogether too much space.

Referring again to co-operation in mining, I desire to bring up a matter which I never have seen discussed in print. That is the difference between what may be termed company mines and mines which can be only operated profitably on the co-operative plan.

Such mines as the Anaconda, of Butte, Montana, the Bunker Hill and Sullivan, of Wardner, Idaho, and similar properties, are properly company mines, as it requires such a large capital to carry the low grade product from the mine to a finishing stage. No doubt were the management of either of the properties named or any similar to select a half dozen of the very best miners they know, furnish them with tools and powder and do the hoisting, these six men, after breaking all the ore they possibly could for a month, could not pay for their board, simply because they lack the capital to send the ore on through the various processes necessary to give it a commercial value.

On the other hand, there are many mines, small veins of high grade ore, which, by being worked by say a half dozen practical miners who own or lease them, can make big dividends for themselves, and in time gain a competency.

Were such mines as the last described operated by a company, with a roster of officers and the usual list of corporate expenses, more money would be expended in getting started than probably the mine would ever produce.

The practical men would need no salaried figure-heads, no office and no red tapeism. The funds for all such would be gravitated to their individual pockets.

Suppose any one would take the time to write out a list of the persons they know personally or who they have heard of who have made a success in mining in the past twenty-five or thirty years. Then let them separate the practical from the theoretical. They will find that the former are far in the majority. It is the practical man in mining who wins nearly every time, and how few make a success of the business who add quite a percentage of the alphabet after their names. Generally this latter class are new beginners. After they have had years of experience they point to results and not to the characters on their diploma.

Another random thought and I will close. How prone we are to give wrong names to ores or minerals when we know better. We are diametrically wrong when we refer to the oxides of the Kootenays and call them—just opposite to what they are—carbonates. Often an igneous rock bears the name of one of sedimentary origin, and *vice versa*. It is a common error of miners and prospectors to call the green carbonate of copper (malachite) and the blue carbonite (azurite), bromides. Were any of them to look up the difference they would soon see how ridiculous it is.

Of Interest to Investors.

WE are allowed to copy the following extract from a letter written by a gentleman in Kootenay to his English correspondents. It contains information on several points which will be of service to English capitalists who are looking toward British Columbia as a field for investment: "It is necessary, and the regular custom here, to pay down a certain amount of money, according to agreement, for an option sufficiently long to enable you to have the property examined and reported on by a competent mining engineer, and also to give you time enough to purchase outright, or bond for further test, or stock and float the stock, or put on the English market in any way you saw fit. Such time necessary would be, I should judge, from three to six months. Owners of promising undeveloped or developed properties will not give options, thereby tying up their properties, to anyone for any such length of time without some money paid on the option being signed; and it depends on the apparent value of the property and the length of time required for the option what amount of money is paid.

"With regard to examination and report by a competent mining engineer it would be necessary to have some definite plan formed to obtain the services of such a man and also to pay him his fees as soon as the work was finished. There are plenty of men in British Columbia who call themselves mining engineers or experts, who are worse than useless, and who will

examine a property and report on it according to their ignorance for fairly small fees. But a good man who is experienced and also has the particular experience of the various districts of British Columbia is worth getting, and his fees would be worth paying, though possibly high. No competent mining engineer could be induced to make a thorough examination and report without some definite business arrangement being made. The mere fact of a man having connections in London who, he says, are willing to take options, is of very little consideration in British Columbia unless those connections are prepared to do business as it is done out here, and to pay down some money to obtain the required options or agreements, and no owner of property or mining engineer would care to do business with him unless he could show that to be the case, and make definite and businesslike arrangements on both sides. There are so many men out here who claim to have 'a good influential English connection, who want to take options on or bond properties,' and who have not the means or power to do so, that now anyone laying claim to 'an English connection' is taken no notice of, unless he can show that his 'English connection' can and will take hold of properties in the recognized manner.

"With regard to paying the owner of the property in shares instead of money. This is hardly possible; money is wanted, and owners will not agree to sell for shares alone, or take chances of their properties being floated in London. They must have some money down. In the case of bonding a mining property for, say, twelve months, a payment of at least ten per cent. in cash of the price is required on signing the bond, the balance usually in payments at six and twelve months after date of signature of bond.

"It is as well for English investors to recognize the fact that the prospectors and original owners of undeveloped properties in British Columbia are a poor class of men and want money. And also that American and Canadian capitalists or their agents are in the country in numbers and are prepared and willing to pay down cash for options or bonds on any promising mining properties, as soon as the necessary examination by an expert and all business arrangements are completed.

"It is, therefore, impossible to obtain options of sufficient length of time to enable parties in England to treat without a cash payment in proportion to the apparent value of the property and the length of time required.

"It is evident that English capitalists desire to avail themselves of the mineral wealth of British Columbia. But it is also apparent that they do not understand the existing conditions enabling them to do so, and the necessary business arrangements by which options and bonds can be obtained for the time required.

"I have, therefore, endeavoured in this to explain as clearly and as briefly as possible the necessary arrangements attendant on obtaining options or bonds on mining properties and the required full report by a competent mining engineer.

"I hope you will find my remarks of use. I would suggest that English capitalists have some good reliable man as representative out here with power to act—a man who knows the country, ways of doing business, and the various mine owners, and who will have reliable information about promising mining properties, instead of sending out agents from Lon-

don, who are new to the country and cannot possibly, during a short stay, secure all the necessary information.

"I may say that I am writing from an experience of nearly a year's business connection and dealings in British Columbia among mining men and investors, and am in a position to know, as I do business as a mining broker, and meet mining men and hear of various deals every day, and pay particular attention to what is going on in the mining districts."

Hot Springs Camp.

CONSIDERABLE excitement was caused the past week by the bonanza find, made about half a mile east of the Blue Bell mine. It was made by a tenderfoot, L. J. Jannagan, a young man who never saw a mine until some six weeks ago. However, he was wise enough to follow up a creek bed, and finding float, dug and found the vein. He then staked a claim, calling it the "Lost Paradise". He immediately went to work on the vein and now has a well-defined vein showing over ten feet between walls. Samples taken by your correspondent from the surface assayed as follows: Hanging wall samples, 52 ounces silver and 64 % lead; foot wall samples 26 ounces silver and 30 % lead. This discovery has set the prospectors hunting, and the result is some score or more of prospects are already located.

A deal was closed the past week, which means a good deal to the north end of the camp. The Twin was sold to a Montreal syndicate headed by the Hon. Alex. W. Morris. The price paid the owners, J. B. McArthur, of Rossland, and D. F. Strobeck, of Ainsworth, was \$35,000 on a four months' bond. Work will be commenced at once on several tunnels to be driven on different veins, opening it as fast as possible. A water power has been secured on Woodbury Creek, where a plant will be erected for the purpose of transmitting electric power to the mine, for milling and mining purposes.

The 93 Mining Company, owners of the Rand, have incorporated under the name of the Rand Mining Company. They expect to commence work June 1st. This is another very promising proposition and large results are looked for in the near future.

The tunnel is now in about thirty feet on the Ellen and the vein is looked for at every blast.

On the Highland the tunnel is now in over 800 feet, and from sixteen to thirty-six inches of ore continues in the breast right along.

The pack trains are now able to get through to No. 1. Teams will begin hauling ore to-morrow from the Black Diamond, Little Phil and Little and a few days later from the No. 1. There are several hundred tons stacked up, having been taken out since the roads became impassable.

The plant of machinery for the Mile Point mine is expected in this coming week and will be put in place in the shortest time possible, when sinking will be continued in the old shaft.

Further contracts have been let on the Jeff Davis and Kate L. A fifty-foot contract of sinking has been let on the Star, which has a very nice showing of galena ore that assays from 40 to 80 ounces silver and about 65 % lead. The vein is in a lime contact.

A contract has been let to drive a thirty-foot cross-cut to tap the vein on the Noble Three, then to drift seventy feet south on the vein. D. F. Strobeck is superintendent. A survey is now being made of this property for a Crown grant.

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NOTICE TO PROVINCIAL LAND SURVEYORS

HIS HONOUR the Lieutenant-Governor-in-Council has been pleased to make the following rules and regulations with reference to the survey of Provincial lands and mineral claims:—

1. All surveys shall be personally made by duly qualified Provincial Land Surveyors.
2. All Surveyors shall use the departmental field book and paper, and at the bottom of each page of the field notes shall be entered the date and signature of Surveyor.
3. The original field-notes shall be accompanied by an affidavit in the subjoined form.
4. All Surveyors must promptly carry out the instructions of the Department in respect to the character and amount of information to be furnished in the field-notes, and at all times be ready to make such corrections and supply such additional data as seems expedient for the complete checking of their work in the field.
5. The Department will invariably exercise the right of refusing to accept surveys not made in accordance with the above regulations, and also will refuse to accept as satisfactory any and all surveys made by a Surveyor who has been guilty of repeated infractions of the preceding rules.

G. B. MARTIN,
Chief Com'r of Lands and Works.

Lands and Works Dep't,
Victoria, B. C., 15th April, 1897.

SURVEY OF PROVINCIAL LANDS.

AFFIDAVIT.

I,, of, a duly authorized Provincial Land Surveyor for the Province of British Columbia make oath and say as follows:—

- (1.) I have surveyed
- (2.) I commenced the said survey on the day of 189, and completed it on the day of 189
- (3.) I personally ran all the lines of the said survey on the dates set out in the annexed field-book marked A.
- (4.) The notes contained in the field-book are a correct representation of the work done on the ground by me.

Sworn before.....

Provincial Land Surveyor.

ALFRED ALLAYNE JONES

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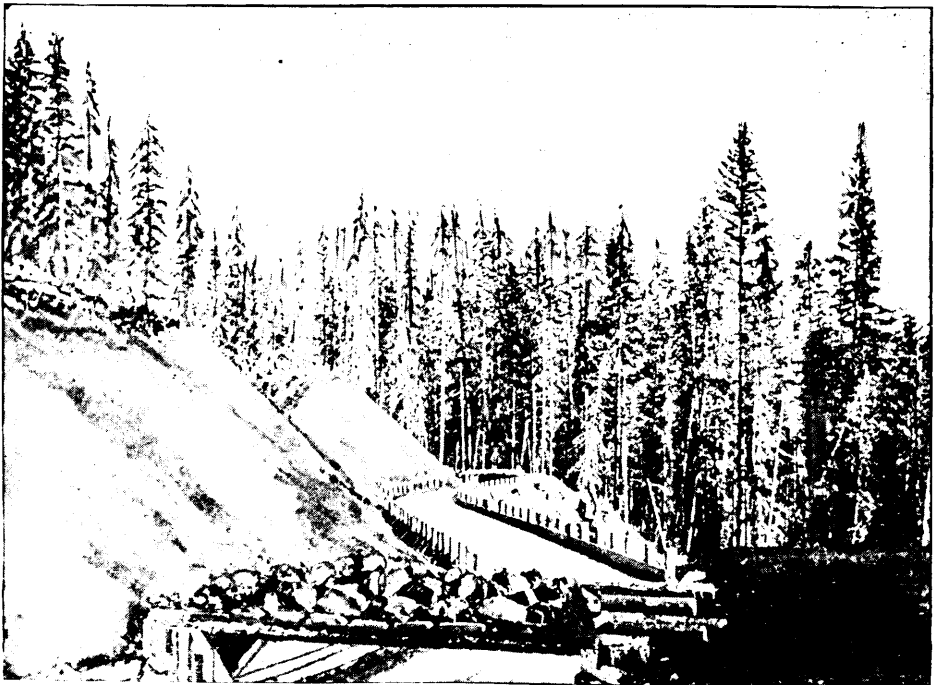
Mining Stocks.

Prepared by A. W. More & Co., Mining Brokers, Victoria, B. C. on 24th April, 1897.

Companies.	No. of Shares.	Par Value.	Price.
TRAIL CREEK.			
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 10
Bluebird	600,000	1 00	0 10
Bruce	1,000,000	1 00	0 10
Butte	1,000,000	1 00	0 04
Caledonia Con.	500,000	1 00	0 06
California	2,500,000	1 00	0 15
Camp Bird	1,000,000	1 00	0 05
C. & C.	500,000	1 00	
Celtic Queen	750,000	1 00	0 07
Centre Star	500,000	1 00	
Colona	1,000,000	1 00	0 26
Commander	500,000	1 00	0 22
Crown Point	1,000,000	1 00	0 50
Deer Park	1,000,000	1 00	0 20
Della Colla	1,000,000	1 00	0 04 1/2
Delaware	1,000,000	1 00	0 12
Eastern Star	500,000	1 00	0 20
Enterprise	1,000,000	1 00	0 20
Eric	1,000,000	1 00	0 05
Evening Star	1,000,000	1 00	0 12
Georgia	1,000,000	1 00	0 15
Gertrude	500,000	1 00	0 10
Golden Drip	500,000	1 00	0 15
Golden Queen	1,000,000	1 00	
Great Western	1,000,000	1 00	0 15
Hattie Brown	1,000,000	1 00	0 10
Helen	600,000	1 00	0 04
High Ore	500,000	1 00	0 06
Homestake	1,000,000	1 00	0 10
Idaho	500,000	1 00	
Imperial	1,000,000	1 00	0 04
Iron Horse	1,000,000	1 00	0 20
Iron Mask	500,000	1 00	0 44
I.X.L.	1,000,000	1 00	0 13
Josie	700,000	1 00	0 50
Jumbo	500,000	1 00	0 72
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
Mabel	1,000,000	1 00	0 15
Mayflower	1,000,000	1 00	0 14
Monita	750,000	1 00	0 19
Monte Cristo	1,000,000	1 00	0 15
Morning Star	1,000,000	1 00	0 04
Nest Egg	500,000	1 00	0 10
Northern Belle	1,000,000	1 00	0 10
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 13
Poorman	500,000	1 00	0 06 1/2
R. E. Lee	2,000,000	1 00	0 15
Red Mountain View	1,000,000	1 00	0 11
Red Point	1,000,000	1 00	0 10
Rossland, Red Mountain	1,000,000	1 00	0 27
St. Elmo	1,000,000	1 00	0 08
St. Paul	1,000,000	1 00	0 12 1/2
Silverine	500,000	1 00	0 08
Southern Cross & W. Con	500,000	1 00	0 20
Trail Mining Co	2,500,000	100 00	
Union	600,000	1 00	
Virginia	500,000	1 00	0 12
War Eagle Consolidated	2,000,000	1 00	1 10
West Le Roi	500,000	1 00	0 28
White Bear	2,000,000	1 00	0 19
AINSWORTH, NELSON AND SLOCAN.			
Argo	1,000,000	0 10	0 10
Athabasca	1,000,000	1 00	0 25
Bondholder	1,000,000	1 00	0 11
Alamo	500,000	1 00	
Cumberland	50,000	10 00	
Dardanelles	1,000,000	1 00	0 25
Dellie	750,000	1 00	0 15
Eldon	1,000,000	1 00	0 05
Elise	1,000,000	1 00	0 07
Ellen	1,000,000	1 00	0 07 1/2
Elkhorn	1,000,000	1 00	0 10



LAKE LOUISE—NEAR LAGGAN.



CARIBOO HYDRAULIC MINING CO.—FLUME BELOW HAZLETINE CREEK.

Companies.	No. of Shares.	Par Value.	Price.
Exchequer.....	1,000,000	1 00	0 10
Goodenough.....	800,000	1 00	0 25
Gibson.....	650,000	1 00	0 17½
Grey Eagle.....	750,000	1 00	—
Hall Mines.....	300,000	£1	—
Idler.....	1,000,000	1 00	0 12½
Kootenay-Columbia.....	400	100 00	—
London.....	600,000	1 25	0 25
Minnesota.....	1,000,000	1 00	—
Northern Light.....	250,000	1 00	0 15
Noble Five Con.....	1,200,000	1 00	0 60
Ottawa and Ivanhoe.....	1,000,000	1 00	0 12½
Phoenix Consolidated.....	1,000,000	1 00	0 10
Rambler Con.....	1,000,000	1 00	0 52
Reco.....	1,000,000	1 00	1 35
Slocan Star.....	1,000,000	50	2 60
Santa Marie.....	1,000,000	1 00	0 05
Sheriff.....	1,000,000	1 00	0 24
Silver Band.....	1,000,000	0 25	0 25
Slocan Queen.....	1,000,000	1 00	0 10
Star.....	1,000,000	1 00	0 05
St. Keverne.....	1,000,000	1 00	0 05
Sunshine.....	50,000	10 00	—
Two Friends.....	800,000	30	0 30
Washington.....	1,000,000	1 00	0 25
Wonderful.....	1,000,000	1 00	0 10
BOUNDARY.			
Old Ironsides.....	1,000,000	1 00	0 06
CAMP MCKINNEY.			
Cariboo.....	800,000	1 00	0 48
LARDEAU.			
Consolidated Sable Creek Mining Co.....	1,500,000	1 00	0 10
TEXADA ISLAND.			
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
ALBERTA DISTRICT.			
Alberni Mountain Rose.....	250,000	1 00	0 06
Consolidated Alberni.....	500,000	1 00	0 23
Mineral Creek.....	500,000	1 00	0 05½
Mineral Hill.....	750,000	1 00	0 10
Quadra.....	500,000	1 00	0 10
CARIBOO.			
Cariboo Gold Fields Ld.....	£100,000	—	—
Cariboo Hydraulic.....	300,000	—	—
Horsefly Hydraulic.....	200,000	—	—
Horsefly Gold Mining Co.....	100,000	10 00	1 50
Slough Creek.....	500,000	1 00	0 50
LILLOOET DISTRICT.			
Golden Cache.....	500,000	1 00	1 75
Alpha Bell.....	500,000	1 00	0 50
Cayoosh Creek Mines.....	500,000	1 00	0 25
Lillooet Gold Reefs.....	200,000	25	0 25
FAIRVIEW CAMP.			
Tin Horn.....	800,000	0 25	0 25

† Dividends declared to date are as follows: Le Roi, \$350,000; War Eagle, \$187,000; Cariboo, \$140,000; Slocan Star, \$350,000; Reco, \$150,000; Rambler Cariboo, \$40,000; Two Friends, \$6,000; Idaho, \$152,000. Alamo, Cumberland, Noble Five and Goodenough have also paid dividends. Since last month's return was made up the following dividends have been declared: Le Roi, \$25,000; Idaho, \$20,000; Reco, \$50,000.

Agents.

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M. W. Simpson.....	“ “
H. A. Martin.....	Sandon, “
H. G. Parson.....	Golden, “
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Mining Papers on File.

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Mining and Scientific Press.....	San Francisco, Cal
Mining and Electrical Review.....	“ “
Pacific Electrician.....	“ “
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Miner and Electrician.....	Spokane, Wash
Mining.....	“ “
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Daily Call.....	Port Townsend, “
Western Mining World.....	Butte, Montana
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American Adviser.....	“ “
Engineering and Mining Journal.....	New York

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Manufacturers' Record	Baltimore, Md	Nanaimo Free Press	Nanaimo, B.O.
Mining Journal	London, Eng	The Province	Victoria, "
Shareholder	" "	The Times	" "
The Colonies and India	" "	Catalogues of Mining Machinery and Supplies.	
Financial News	" "	<i>We will be pleased to forward to any subscriber or reader catalogues and printed matter from the following firms:</i>	
Canadian Gazette	" "	Joshua Hendy, Machine Works, San Francisco, Cal. Mining machinery of all kinds.	
Chamber of Commerce Journal	" "	The Giant Powder Co., San Francisco, Cal. Explosives.	
Australian Mining Standard	Sydney, N.S.W	The Pelton Water Wheel Co., San Francisco. Water wheels.	
Standard and Diggers' News	Johannesburg, South Africa	John Taylor & Co., San Francisco, Cal. Mine and mill supplies, chemicals, etc.	
Canadian Engineer	Toronto, Ont	Canadian Rand Drill Co., Montreal and Rossland. Mining machinery.	
" Electrical News	" "	Fried. Krupp Grusonwerk, Magdeburg-Buckau, Germany, and Montreal, Mining and Milling Machinery of every description.	
Canada Miner	" "	Hamilton Powder Co., Montreal and Victoria. Explosives.	
Industrial Canada	" "	M. Beatty & Sons, Welland. Dredgers, ditchers, etc.	
Canada Lumberman	" "	Theodor Lexow, New York. Carbons, diamond drills, etc.	
Monetary Times	" "	James H. Lancaster, New York. Steam shovels, etc., etc.	
Toronto World	" "	James Macbeth & Co., New York. Electric blasting supplies.	
Toronto Globe	" "	Bradley Pulverizer Co., Boston. Griffin mill.	
Mining Review	Ottawa	The Reliance Oil & Grease Co., Cleveland, O. Valve-oleine.	
Money and Risks	" "	Northey Co., Ltd., Toronto. Pumps for mining.	
Mining News	Montreal	Colorado Iron Works, Denver, Col. Milling and smelting plants, etc.	
Edmonton Herald	Edmonton, N.W.T	Canadian General Electric Co., Electric supplies, Vancouver.	
Revelstoke Herald	Revelstoke, B.C	John Boyd & Co., Machinery and Supplies, Vancouver.	
Rosslander	Rossland, B.C	Jas. Leffel & Co., Water Wheels, Springfield, Ohio.	
Rossland Miner	" "	Girard Water Wheel, San Francisco.	
Evening Record	" "	Electrical Engineering Co., San Francisco.	
Kootenaian	Kaslo, "	Geo. W. Pennington & Sons, " "	
Miner	Nelson, B.C	Union Gas Engine Co., " "	
The Tribune	" "	Gates Iron Works, Chicago. Mining machinery of all kinds.	
Trail Creek News	Trail, "	Royal Electric Co. Electric Power and Supplies, Montreal, Victoria, B.C.	
Trail Creek Miner	" "		
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, "		

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8.30 a.m. Lv	M 1	Victoria	110	Ar	3.30 a.m.
11.30 a.m. Lv	38	Pt. Townsend	72	Lv	12.30 a.m.
2.30 p.m. Lv	82	Seattle	28	Lv	9.30 p.m.
4.15 p.m. Ar	110	Tacoma	M 1	Lv	7.15 p.m.

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Leave.	Spokane	7:00 p.m.
7:30 a.m.	Rossland	3:25 p.m.
10:30 a.m.	Nelson	5:20 p.m.
9:00 a.m.		

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Passengers for Kettle River and Boundary
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FAMILY AND COMMERCIAL HOTEL.

Heated throughout with hot air.
Lighted with electric lights.
All modern conveniences.

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TRANSPORTATION COMPANIES.

Canadian Pacific Navigation Co., Ltd.

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

VANCOUVER ROUTE.

VICTORIA TO VANCOUVER daily except Monday at 10 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 "Teas" 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.

Union Steamship Co., Ltd., B.C.

Head Office and Wharf, VANCOUVER, B.C.

NORTHERN SETTLEMENTS—SS. Comox sails from Company's wharf every Tuesday at 9 a.m. for Bowen Island, Howe Sound, Secheit, Jervis Inlet, Froeck, Texada Island, Lund, Hernando Island, Cortez Island, Read Island, Valdez Island, Shoal Bay, Phillips Arm, Fredrick Arm, Thurlow Island, Loughborough Inlet, Salmon River, Port Neville; and sails every Friday at 11 a.m. for way ports and Shoal Bay, calling at Bute Inlet every six weeks.

MOODYVILLE & NORTH VANCOUVER FERRY.

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.

Freight steamers SS. Capilano, and SS. Coquitlam; capacity, 300 tons d.w.
Tugs and scows always available for towing and freighting business. Large storage accommodation on Company's wharf.

H. DARLING, Manager.

Telep hone 94.

P.O. Box 77, 1

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 "	Bea Lake	" 1.48 "
" 10.18 "	McGulgan	" 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 a.m.	Sandon	Arrive 11.45 a.m.
Leave 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.

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 NAKUSP	{ De 7.30 a.m.	" " "
" " "	" 12 m. De	{ Ar 6 a.m.	" " "
Tues. Thurs. Sat.	9 a.m. Ar ROBSON	{ De 8.30 p.m.	Tues. Thurs. Sat
" " "	" 12 noon De	{ 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.
" " "	9 a.m. Ar WANETA	De 3 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
" " "	{ 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.

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.

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.

IMPORTANT NOTICE—Prospecting.

PROSPECTOR open for engagement to a Syndicate or Company desirous of securing mineral claims in British Columbia the coming season. Is well up in the geology and general conditions prevailing in the various mining districts. The past season located a number of valuable properties for his employers.

Address "INITIAL POST," Care of this Journal.