



# CANADIAN



# MINING JOURNAL

VOL. XL.

May 20, 1919.

No. 20.

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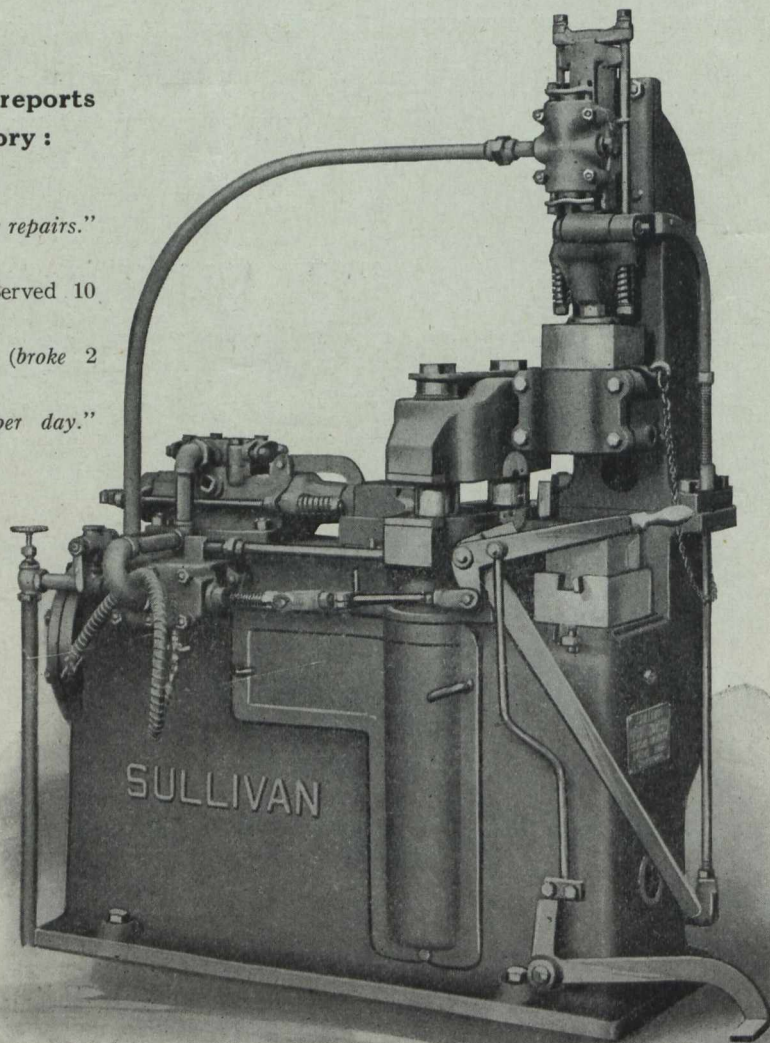
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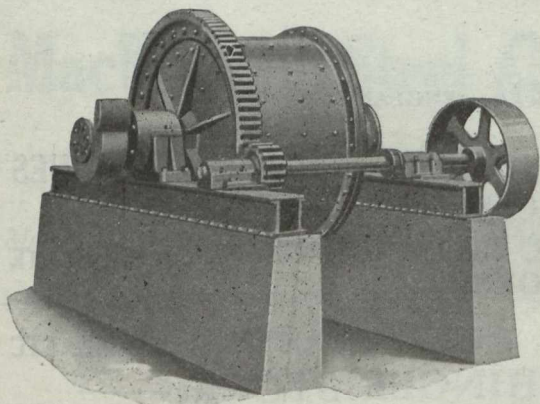
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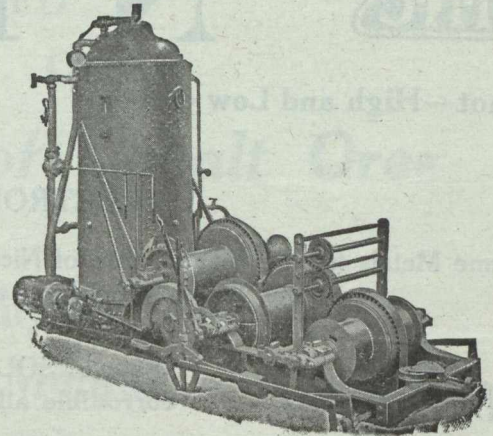
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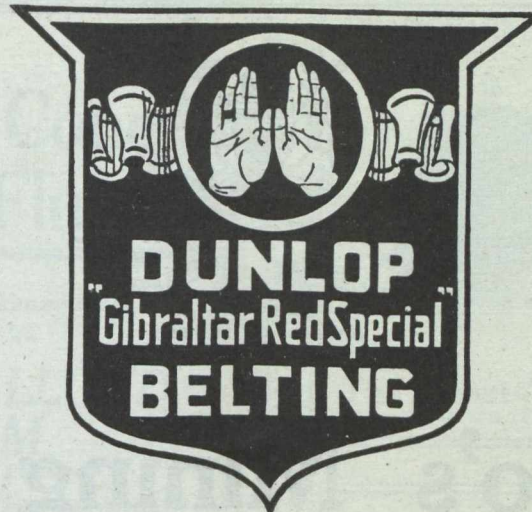
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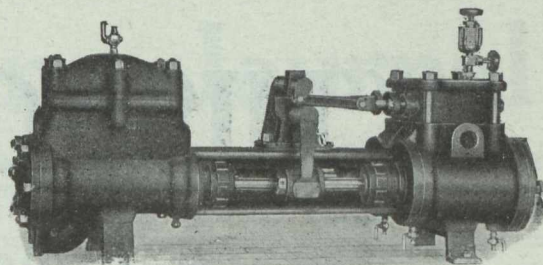
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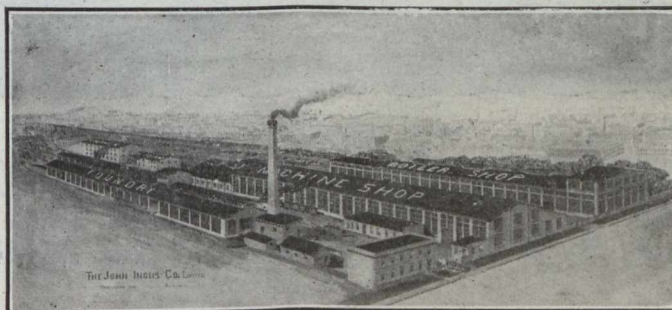
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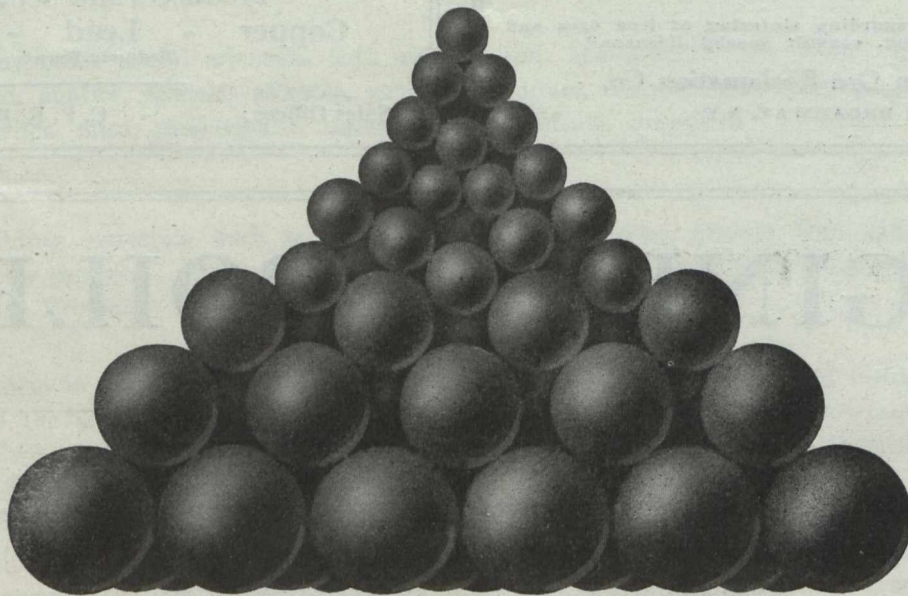
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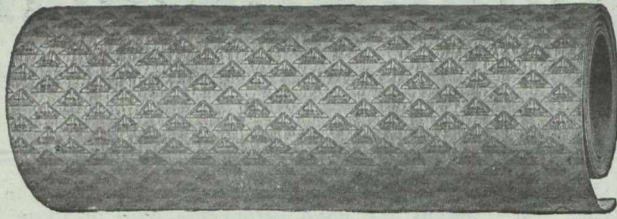
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# EDITORIAL

## PROSPECTING BY RETURNED SOLDIERS.

Returned soldiers are offered financial assistance if they choose to engage in farming. Should not those who prefer mining be given similar assistance?

If it is admitted that the soldier should be allowed to choose for his occupation prospecting for minerals instead of clearing and tilling the soil, it behooves mining men to suggest how such assistance should be given. Obviously, the difficulties are greater in this case than in agriculture; but there must be some satisfactory solution and it will be found if we look for it diligently. The solutions that have been offered are not considered wholly satisfactory, but they are valuable, nevertheless. They should bring out discussion and lead to good results.

One thing that strikes us is that the prospectors have not yet given voice to their opinion regarding assistance to prospectors. We would be not a little surprised if they looked very favorably on some of the plans that have been proposed, in which it is provided that government prospecting parties should be in charge of engineers. It seems to us that the proper persons to place in charge of prospecting parties are experienced prospectors. Mining engineers who have had considerable experience in prospecting would be well qualified for the work, but great engineering ability is not so necessary as well developed powers of observation, and a love for the work. The engineer has his place, and it is a very important place, in the mining industry; but the prospector is generally better qualified than the engineer for his particular work. It is no great discredit to the engineer that he seldom makes discoveries in new fields. It is no discredit to the prospector if he cannot survey a stope or design a hoist.

The prospector can get much assistance from the engineer, and perhaps more from the geologist. It does not necessarily follow, however, that the prospector does not bring to his work any tools of his own. His ability to utilize the work of the geologist and the engineer does not make him a subordinate individual by any means. Why should we assume that there are not among the prospectors men capable of leading prospecting parties?

If the government is to assist prospectors, should there be any strings attached to the title of properties staked while in receipt of such assistance? It seems to us that the fewer restrictions placed on the prospectors the better. We know that there would be objections raised if the prospectors were allowed to have a perfectly free hand. Nevertheless, we are disposed to believe that the best plan would be to give each soldier an outfit, a season's supplies and a little money, and let him go wherever he pleased like any other prospector. Every assistance in the way of advice should be tendered him; but he should not be required to accept it.

It is probable that some recipients of government "grubstakes" would not do good work. There would be some waste, but possibly not as much as a staff of supervisors would cost. In any event, we should re-

member that we are paying these men for what they have done for the country rather than for what they are going to do. Their own interests will direct most of them to spend a reasonable portion of their time in the search for minerals, provided they are to receive full title to their discoveries. The government, like every individual who puts up money for prospecting, will have no guarantee of returns.

## THE UNDERSEA COAL-FIELD OF CAPE BRETON ISLAND.

A very lively interest is being taken throughout Nova Scotia in the legislation now before the House of Assembly in Halifax which is designed to empower the Commissioner of Public Works and Mines "whenever he deems it expedient to inquire into and concerning whether any worked or unworked submarine coal mining area, held under lease and subject to the provisions of the Mines Act, can, if unworked, be advantageously worked, or if worked, be more advantageously worked in the best interests of the Province by some other lessee of coal mining areas that are subject to the provisions of the 'Mines Act' and to report thereon to the Governor-in-Council with any recommendation he may think fit."

The attitude of the Government of Nova Scotia toward the submarine coal lease question was indicated during February in a statement made by the Commissioner of Mines to representatives of the Press. Mr. Armstrong said:

"Many of our valuable deposits are under the sea. Obviously, the extent of these measures is difficult to determine. In each of the four well-known coal basins in Cape Breton County, around Sydney Harbor, the various seams dip from the land out under the Atlantic Ocean with wonderful regularity. Many of the mines of The Dominion Coal Company, and of the Scotia, are being operated under the sea, in some instances probably two miles from the shore. When it is known that submarine coal seams are today being successfully extracted at a distance of over five miles from the shore, and as the fringe of our areas is but touched, the possibilities are enormous. The problem of extracting the coal, from an engineering standpoint, is an interesting one. *The key to the development of these areas is naturally dependent upon the contiguous land areas.*

"As the development of these underseas areas proceeds it is becoming apparent that the policy pursued in the past of laying these areas out on the same principle as that applicable to land areas, is open to challenge. Unless arrested and altered, the future development and operation of some of these areas will be difficult and economically impossible. These difficulties were not foreseen at a time when the value of these areas was less appreciated than today. The conservation of these valuable deposits is essential in the public interests, and only the very strongest of reasons should be admitted to prevent the application of a speedy remedy. This applies more directly to the submarine areas off Sydney

Harbor than elsewhere. It may be necessary to review and re-survey this whole territory and re-adjust existing lines and boundaries in such a way as to ensure such a disposition of these areas as will guarantee the future extraction of this coal, upon the most natural, equitable and scientific lines possible. The time has probably arrived for some such action. It can be accomplished, I have no doubt, without inequitably disregarding or unfairly disturbing existing interests or rights."

The necessity for legislative action in this matter has, as is well known, arisen from the application of the Nova Scotia Steel & Coal Company for permission to extend its collieries into the solid coal surrounding the undersea workings, and the objection of the Dominion Coal Company as lessee of the coal in question.

#### BETTER ROADS FOR MINING CAMPS.

In this week's issue of The Journal, two Government announcements of particular interest to Northern Ontario are made. First, is the announcement that a motor road will be built for the benefit of the mines of the Kirkland Lake field, and, second, that the Government has taken over the ore sampling plant of Campbell and Deyell's, and will operate the plant for the general benefit of mines in the north.

The decision to construct a motor road from Swastika to Kirkland Lake is in compliance with the expressed wishes of the leading property owners in the district. It is believed the cost of the road will approximate \$72,000. In the subsequent development of mining properties farther east, should success be achieved, and, also, should the Larder Lake district develop successfully, there would then be much in support of constructing a railway from Swastika to Larder Lake by way of Kirkland Lake. As matters now stand, the proven mines of Kirkland Lake are only from four to six miles from the present main line of the railroad, and, travelling by motor bus over a first class road should not occupy more than from twelve to eighteen minutes. Passengers and freight may thus be landed directly at their destination, and a flexible service for travelling at any hour of the day or night will thereby be provided, as compared with perhaps not more than two trains daily if a railroad were to serve the district. The announcement that the Government has decided to assist mining interests of the north by taking over and assuring the continued operation of the only independent ore sampling plant which serves the mines of Northern Ontario will be welcome news for those engaged in the north's mining industry.

The attitude of the Ontario Bureau of Mines in taking cognizance of the reasonable requests of mining interests for assistance in matters of this kind, is going the full limit in serving the best interests of the mining industry. The Department commands a full measure of request in the entire field of its activities, by reason of just such general response to the earnest requests from those localities and that part of the country's industry which falls within the scope of its jurisdiction.—J. A. McR.

#### Cork-Province.

After having been closed down since last November, because of the failure of water for milling purposes, the Cork-Province Mines, Ltd., south fork of Kaslo Creek, have resumed development.

#### THE ANTICS OF SILVER.

Released from the bonds of government control, and in greater demand than ever before during the past quarter century, the quotations for commercial bar silver have been fluctuating violently during the past week. In the position of having to find a price level, based entirely on the law of supply and demand, the antics of silver quotations is baffling not a few of those well versed in the precious metal trade. Sooner or later the quotations may reasonably be expected to get into a more or less even groove, but, for the present, conservative mining interests refrain from offering opinion. That the price will rule high for several years is confidently expected. In the Cobalt field the trend of the metal market, it is believed, will encourage additional exploration work on idle properties as well as in the idle areas of the present producing mines.

#### The Dome Report.

The eighth annual report of the Dome Mines contains no important surprises. The most significant feature, perhaps, is the fact that underground facilities for handling ore will now make it possible to handle about three thousand tons of ore and waste in two shifts of eight hours each. This is considered to be particularly significant, in that the present milling facilities are good for treating only about one-half that amount of ore. The interpretation placed on this in some quarters is that an early increase in milling equipment is under contemplation.

Other features are the facts that no ore was developed below the 800-foot level, the deeper workings having been carried out in connection with the ore handling system and not for exploration. Diamond drilling, at 1,150-ft. level, however, indicated considerable ore. The surplus as of March 31st was \$56,801.26, as compared with \$524,797.76 one year ago, a decline of \$467,996.50 during the year, owing to the large amount of work done while the mill was non-operative.

The fact that the report was in the hands of shareholders just four weeks following the close of the fiscal year, is generally looked upon as ample proof that shareholders are to receive every possible consideration. The attitude of Mr. Basche, president of the company, is creating a favorable impression in the north. Not only does the report cover operations during the past year, but indicates as clearly as is humanly possible the probable course of working during the coming months.

It is interesting to note that whereas ore reserves are estimated at close to two million tons, the general manager, Mr. Kaeding, declares some four years' ore is in sight. This would indicate the expectation of being able to treat about 500,000 tons annually. The ore reserves have previously been estimated to contain \$5.10 to the ton, and it follows a production of about \$2,550,000 would be shown annually. Provided costs are maintained at about the pre-war rate, a net profit of some \$1,250,000 would be shown per annum, or equal to about 31 per cent of the company's \$4,000,000 issued capital.

The mill has resumed work this month on a moderate scale, and is rapidly being speeded up to 600 tons daily, following which it will gradually be brought up to full capacity of about 1,350 tons daily. Maximum production will probably not result for some little time, but now that a beginning has actually been made, the future outlook is satisfactory.

**A CORRECTION.**

To the Editor of the Canadian Mining Journal:

Sir,—The writer has frequently been irritated by the evident inaccuracies of the daily press when dealing with figures of any kind. Almost daily one sees figures in the heading of a news item which cannot be reconciled with those given in the text below. This might possibly be excused by the daily rush to have the paper printed and the wide range of subjects with which a newspaper deals. It is a different thing, however, when a supposedly respectable and sober technical journal treating of matters in its own sphere tries to force down its readers the statement attached. It cannot be explained as a clerical error or misplacement of a decimal point. I for one will not allow you to remain under the delusion that you have got away with it. You stand unmasked!

Yours, etc.,

THOUGHTFUL READER.

Toronto, May 9th.

The following appeared on page 289, April 23rd number: "The gold production of the province (Nova Scotia), during the period of the war has been but a few thousand ounces. The total gold production of Nova Scotia from 1862 to 1917, was 956,497 ounces from 2,187,493 tons of ore crushed, which shows the high average yield of 2.28 ounces per ton."

The average yield was, as might be estimated from the total tonnage and yield, about .45 oz. per ton or a little under \$9.

**PLACER MINING IN CARIBOO DISTRICT.**

Victor Dolmage, of the Geological Survey Department, Ottawa, has issued a report on the Cariboo Gold Fields in the summary of which he states that, with the completion of the Pacific Great Eastern Ry., there should be a marked rejuvenation of the placer mining industry of the Cariboo. Last summer he spent some time in a reconnaissance survey of the district and in visiting the various placer mining operations in the area. Last year's gold output was only \$82,000, as compared with the average of recent years of \$200,000. Shortage of labor and depreciation of the purchasing power of gold are given as reasons for this decline. Of the \$75,000,000 produced by the placers of this Province Cariboo has produced \$45,000,000, the greater part of which was recovered between 1860 and 1878 when the rich accessible parts of the stream beds were mined. The Cariboo Gold Fields embrace 7,000 square miles and lie within the bend of the Fraser River between the C. P. R. and the G. T. R., the mining centre being Barkerville, 230 miles directly north of Ashcroft. The area may be reached by motor from Ashcroft or by steamer from Prince George. Practically all the promising placer ground in the Barkerville area has been staked, though, owing to present conditions, the majority of the claims are idle. Mr. Dolmage believes that an improvement in transportation facilities into the district would stimulate prospecting along the creeks. There is a possibility of an increase of mining of the deep ground along numerous creeks. Prospecting with Keystone drills has given satisfactory results, but the excessive pressure of underground water has made the exploiting of the deposits by drift mining impossible as yet. Much of the ground is suitable for dredging. The distance from the present railways makes the cost of installing machinery high and constitute a handicap to development.

**NIPISSING.**

In his monthly report to the President and directors of the Nipissing Mining Company Manager Hugh Park says:—

"During the month of April the company mined ore of an estimated value of \$219,927 and shipped bullion from Nipissing and custom ore of an estimated net value of \$305,989. Favorable developments continued to be encountered underground, particularly on veins 99 and 109 at 96 tunnel. All producing faces at shaft 73 continued to be satisfactory. Vein 99, being developed through the workings at 96 tunnel, showed great improvement during the month. This vein had previously been drifted on the tunnel level for some distance, showing approximately one inch of 1,000-ounce ore over a length of fifty feet. A winze was recently started and a test level was established at 50 feet. At a distance of 25 feet from the winze the vein widened from almost nothing to one inch of high-grade ore, alongside of which was one-half inch of matted wire silver. Several rounds have since been taken out and the vein is improving in width.

"Vein 109, also worked through 96 tunnel, continued to be satisfactory throughout the month, 130 feet of drifting having been done to date, over which distance the vein averaged two inches in width and 3,000 ounces to the ton in assay.

"Veins 99 and 109 will shortly be developed by a level at 90 feet below the tunnel. An old winze has been pumped out and cross-cutting to the vein will commence immediately.

"At shaft 73 no new veins were encountered in any of the cross-cuts. Developments on vein 544 were only fairly satisfactory throughout the month, due largely to much faulting. At times the vein has been four inches in width, but of low value. Some raises have been commenced, and if these prove to be satisfactory a level higher up will be started.

"Drifting and cross-cutting have been started at the second level of 64 shaft in a area some distance to the north of 64 vein. No favorable developments were encountered at shafts 63 and 128. The low grade mill treated 6,343 tons of mill rock and 169 tons of high grade ore. The refinery shipped 301,458 fine ounces of bullion."

**Want Grant for Electric Smelter.**

A delegation waited on Premier Oliver, of the British Columbia Government, and asked that a loan of \$300,000 be arranged to permit the installation of a Rothern Electric Smelting Plant in this Province. Representatives of those who control the smelter patents were supported by Mayor Vance, of North Vancouver, B. C.; Reeve Fletcher, of Port Grey Municipality, B. C., and other prominent citizens. The Premier gave the delegation a hearing and promised that a report would be obtained on the process immediately on the return of Hon. Wm. Sloan, Minister of Mines, who is in Eastern Canada at present. Samples of steel were shown which, it was claimed, were produced from magnetite ore, of the kind to be obtained in quantity in this province, during the space of four hours. The Government was informed that the Rothern furnace now is situated near Seattle, Wn., and that a favorable consideration of the request would secure the industry for British Columbia. It is understood that, in addition to the loan, the principals would ask for a free site and other miner concessions.

## Nova Scotia's Side of Coal Area Question

A statement regarding the question of undersea coal areas in Cape Breton has been given out by the Nova Scotia Steel & Coal Co. It is as follows:

The statement of the Dominion Coal Company, in opposing the proposal made by the Nova Scotia Company, that an exchange of undersea coal areas, should be brought about by legislative action, assumes throughout, that such an exchange would lessen the value of the equities upon which the stock and bond issues of the Dominion Coal Company have been secured, and would lessen the reserve tonnage of metallurgical coal required for the future operation of the Dominion Steel Company.

No such effect could possibly follow the exchange of undersea areas which is proposed by the Nova Scotia Company, as would very readily be seen by an impartial mining engineer who would take the trouble to examine the nature of the proposed exchange.

Far from decreasing the reserves of the Dominion Coal Company, the exchange suggested would increase by several hundreds of millions of tons the available metallurgical coal tonnages of the Dominion Coal Company. Not only would it do this, but it would prevent the Dominion Coal Company from being compelled some years from now to abandon a number of undersea collieries when the workings reach the limits of the Dominion Coal Company's present undersea leases, and encounter the outer leases of the Nova Scotia Company, some two miles from shore.

The proposal made by the Nova Scotia Company does not refer in any way to the so-called, "blanket lease" of the Dominion Coal Company, which was the product of special legislation and upon which the securities of the Dominion Coal Company are floated.

The "blanket lease" (sometimes called the Whitney Lease of 1893), represents the consolidation of a number of **individually owned** properties, which were amalgamated to form the main coal asset of the Dominion Company. The most valuable part of the "blanket lease" consists of coal seams underlying the **land**, in which only the upper coal seams have been worked to any important extent. The land areas of the Dominion Blanket Lease constitute a magnificent asset, but its seaward extension is insufficient, seeing that over the most important frontage, namely that now being operated upon by the Waterford collieries, it is limited to two miles in a seaward direction.

A seaward extension of only two miles is insufficient to enable the maximum output to be won from the shore openings and, under the conditions of mining practice as understood to-day, the first thing an engineer would seek, before planning undersea collieries, in such a coal area as exists at Waterford would be to secure **all** the coal seawards.

Coal is being successfully mined off the Cumberland coast in England at a distance of 5 miles from shore. The Nova Scotia Company, operating only a few miles from the Waterford collieries, is mining coal 2 1-3 miles from the shore, and has made every preparation to continue the mining of coal indefinitely seawards.

The refusal of the Dominion Coal Company to consider the exchange proposals, is in effect a refusal

to accept the opportunity to remedy the shortcomings and weaknesses of the "blanket lease." If the Dominion Coal Company were to examine impartially the proposal of the Nova Scotia Company, it would see that an opportunity was presented to acquire an area of metallurgical coal, of undoubted quality and extent, which would indefinitely prolong the life of the four new collieries now operating at Waterford and of several other collieries, which will some day be developed in this district. The whole argument of the Dominion Coal in opposition is based on the belief that the proposed exchange is inequitable to the Dominion Company, and on this belief it bases a plea for the protection of its vested interests and financial obligations.

If, however, it is demonstrated that the Dominion Coal Company's present and future financial and operating conditions will be improved by the proposed exchange, the whole lengthy argument of the Dominion Company in opposition thereto becomes of no effect. The Dominion Company has not attempted to controvert in detail the assertions of the Nova Scotia Company that the proposed exchange will improve the position of the Dominion Company, and it is a matter of honest belief on the part of the Scotia Company that its proposals have not been fairly and accurately investigated, but have been assumed to be necessarily inimical to the Dominion Coal Company, because they would be of immediate benefit to the Scotia Company.

The position of the Mines Department of Nova Scotia in the exchange proposal is easily understood, because while an undoubted problem exists, as between the two Companies, a much greater problem presents itself to the Government of Nova Scotia, whose revenues are largely dependent upon the coal royalties and whose position as steward of the people's interest in the undersea coal field off Sydney Harbor, places upon the Government certain inescapable responsibilities.

The existing situation in regard to the undersea coal leases off Sydney Harbor was well described by Mr. C. A. Magrath, the Fuel Controller, sometime ago who stated that "a map showing the coal leases in that part of the Province of Nova Scotia looks more like a checker board than anything else. . . . I have seen sufficient to warrant me in saying that there should be a readjustment of the leased coal areas in the Sydney District."

Mr. Magrath, realized that the tangle of leased areas was a condition which had come about under the administration of provincial laws, and can only be remedied by like authority and stated:

"This, however, is outside of any function of mine, and my request to meet an immediate national necessity has been so resisted, and so much fear expressed that the Dominion Coal Company's bondholders may suffer, that I feel justified in going on record as to my views in respect to the interest of the public.

"Furthermore, I hold that the **readjustment of coal areas would be in the best interests of the Companies themselves.** It would mean that each Company would have its areas so adjusted as to enable it to get

its coal at the lowest possible figure, and certainly it would do away with the one Company paying tribute to another — which the consumer ultimately pays — in order to get to some distant coal areas.”

In its application to the Commissioner of Mines, the Nova Scotia Company pointed out that the existing arrangement of the undersea leases, if it were not remedied, would result in heavy duplication of expenditure by the operating companies and waste of effort, which would diminish the general prosperity of the coal industry. Furthermore, it was shown, that any attempt to mine coal in conformity with the existing lease lines must heavily increase the cost of mining, and thereby increase the cost of coal to the public. It is also certain, that unless the existing lease arrangement is made more sensible and practical, the life of the submarine coalfield will be shortened, and the accessibility of the remoter undersea coal and its preservation for future mining will be seriously endangered.

The Dominion Coal Company has not attempted to deny these obvious consequences, because they are undeniable and must be the inevitable result of any attempt to work the undersea leases as at present arranged.

In its letter to the Commissioner of Mines, the Dominion Coal Company has stated that its undersea collieries are **designed and intended only to mine a two mile belt of coal seawards from shore**, which in effect is a statement that it is not concerned to preserve the accessibility of any coal lying seawards of the two mile limit, access to which will be rendered most difficult if not entirely prevented by the upper workings of the present collieries.

The announced policy of the Dominion Coal Company—if carried out—will have a two-fold effect, namely, to shorten the life of the existing collieries and bring about their abandonment at an unnecessarily early date, and secondly, to render it extremely difficult for another operator ever to extract the coal lying below the abandoned collieries. How such a policy can be of benefit to the Dominion Coal Company is not explainable.

On the other hand, on the North Sydney side, the submarine coal which the Scotia Company is asking to be given permission to mine in exchange for its Waterford areas, is in a large measure approaching or exceeding two miles distance from shore. There is the very best reason to believe that some of the coal which the Scotia Company is seeking to acquire by exchange, can never at any time be worked by the Dominion Coal Company, whereas it could be worked at once by the Scotia Company.

Moreover, there are other areas on the North Sydney side which the Dominion Coal Company can work, but only at some indefinite future date. Yet these same areas could be worked by the Scotia Company immediately, and at a much lower getting cost than will ever be possible to the Dominion Coal Company, because the Dominion Company can only win these areas by making expenditures duplicating those which have already been made by the Scotia Company.

The attitude of the Dominion Coal Company is hard to understand, because by leasing certain areas to the Scotia Company it would have been possible for the Dominion Company to enjoy a substantial annual revenue from extra royalties without the expenditure of one cent of capital, and this, be it remembered, from coal areas which have remained undeveloped in the possession of the Dominion Coal Company for over

a quarter of a century, and will remain indefinitely undeveloped unless they are mined by the Scotia Company.

If the Dominion Coal Company seriously contends that its equities will be damaged by the exchange of coal areas which is proposed by the Scotia Company, it is an evidence that these proposals have not been studied or given fair consideration. The present arrangement of the undersea leases is so unpractical and unworkable that the necessity for its correction is admitted by all parties. The objection of the Dominion Coal Company to the Scotia proposals is made apparently because some immediate benefit will be thereby conferred upon the Scotia Company, and this is not denied, because the motive behind the Scotia Company's application is to obtain relief from an intolerable situation. At the same time, because the Scotia will be immediately benefitted, it does not necessarily follow that the Dominion Coal Company and the Government will not be benefitted, which indeed is the case. The existing arrangement of undersea leases is bad, and its effects must also be bad on all the parties concerned. Equally so the correction of the existing evils will benefit all the parties concerned, and it should not be regarded as a bar to correction of the situation by legislative action, that some immediate benefit will accrue to one of the parties. If corrective measures are not applied, a situation which is bad will become worse, and not capable of remedy, and then all the parties will suffer and will be unable to obtain relief.

It is because the Scotia Company is the pioneer of submarine coal mining that it is first to experience the evil consequences of the haphazard and thoroughly unpractical arrangement of the under leases.

The situation of the Scotia Company to-day will be the Dominion Company's situation to-morrow.

#### Railroad Builders on Strike.

The strike of workmen employed in the construction of a branch railway to the Copper Mountain Mines of the Canada Copper Company has lasted over three weeks and there is as yet no signs of a settlement. The latest developments are the outbreak of trouble in that town for which the strikers are said to be responsible, notably the occurrence of fires and the cutting of hose brought to quench the flames, and, if press dispatches are to be credited, the molestation of women. A Committee of Citizens has been organized to preserve order and the Provincial Government has arranged for the sending of a detachment of Canadian Mounted Police to the scene. The serious aspect of the matter from a mining standpoint is that it affects the biggest new enterprise in British Columbia, the possibility being the closing down of operations on a property which represents an investment of \$2,500,000 as the continuance of work at Copper Mountain is contingent on the provision of railway transportation facilities. The W. P. Tierney Construction Company has the contract for the work. Last fall the men worked a ten hour day at a minimum of forty cents an hour. Towards winter it was decided to cut down to nine hours a day and when on April 1st the company announced that the ten-hour day would come into effect again the men balked. Now they insist on an eight hour day and a minimum of fifty cents per hour with no overtime or Sunday work.

## Dominion Coal Company's Side of Coal Area Question

Public interest in the dispute between the Dominion Coal Company and the Nova Scotia Steel and Coal Company by a statement issued by the Dominion company regarding a further division of the submarine areas. In this statement there is a bill before the Nova Scotia Government for the purpose of obtaining sanction of the Legislature to the Order-in-Council permitting the Scotia company to break through the barriers of the Dominion Coal area on the north side of Sydney harbor. President Workman's objections to this bill are briefly:

"1.—That its titles were granted under such legislative sanctions and held under such legislative pledges that the legislature ought not now to alter them.

"2.—That the proposition of the Nova Scotia Company is so inequitable it ought not to be considered. It is that this company's inshore areas containing millions of tons of excellent metallurgical, easily won coal should be forcibly taken from it and that there should be given in exchange submarine areas that have not been proved and cannot be proved to contain coal.

"3.—That the Nova Scotia Company has ample reserves of coal and should develop these.

"4.—That this company's coal areas in North Sydney are vital to the maintenance of its industries, the magnitude of which are outlined.

"5.—That its security holders purchased its securities under such circumstances that no Legislature ought to change the property pledged without the consent of the holders."

The reasons given by the Nova Scotia Steel and Coal Co., for asking the Provincial Government to readjust the leases are taken up by Mr. Workman. The substance of these he sums up as follows:

"That it has reached the boundaries of the seams presently being worked in its leased areas and that to extend these workings to its outside areas would cost a large sum of money; that if it did extend these workings the cost of winning the coal would be prohibitive; that the present operations endanger the possibility of winning the coal from outside areas; that unless it can secure metallurgical coal at cheap cost it must close its blast furnaces, and that this will be accompanied by the decay of the towns that exist by reasons of its operations."

In this connection he remarks:

"It is true that it endeavors to state its own necessities in the form of general propositions, and without any justification in fact asserts that the Dominion Coal Company will soon have to restrict its operations at Glace Bay by reason of its workings coming to the boundaries of the outside areas of the Nova Scotia Company. The application is based upon the necessities of the Nova Scotia Coal Company and not upon any public interest involved. The unwarranted suggestions are made that royalties will be lost to the Province; and that the cost of coal to the public will be increased if the Nova Scotia Company's present workings are not utilized to extract coal from its neighbor's property."

Mr. Workman finds some discrepancies in the statements made by the Nova Scotia Steel and Coal Co. when it was issuing securities and those contained in the present application. These points are dealt with as follows:—

"It is difficult for this company to understand the merits of the Nova Scotia Company's application if based on its own necessities. When it sold its securities in London and to the public in 1913, its prospectus then issued by the authority of its responsible officers stated that it has 2,556,900,000 tons of coal at Sydney Harbor. So late as 1915 the Royal Securities Corporation of Montreal, in selling \$1,000,000 of debenture stock, repeated this statement in its selling prospectus. The report of Mr. Eckel, a mining engineer, also placed the Scotia holding at 2,500,000,000 tons."

"In 1913 the Nova Scotia Company represented to this company that it desired to reach its submarine areas near Cranberry Head and a lease of all the coal in the Sydney main seam of two square miles was granted the Nova Scotia Company by this company to enable it to extend its Princess pit to reach its outside areas. The royalty charged was only 10 cents per ton and in the territory granted were 12,000,000 tons of excellent Metallurgical coal. Plans submitted with the application show the workings have not been effectively prosecuted in this large body of coal. The present possible output from these workings is said to be 1,200 tons a day. From the experience of this company it is believed that by the proper development of this mine its capacity could easily be increased to 2,000 tons per day. With all this coal available and capable of being worked it is difficult to understand the statement in the application that the Princess Colliery is "now faced with complete exhaustion."

The enquiry of the Fuel Controller, Mr. Magrath, is also quoted in the same connection.

After dealing with the necessity of the Dominion Company maintaining its reserves of metallurgical coal, so essential to the steel department as well as to the sale of the company's securities, Mr. Workman concludes:

"This company desires to emphasize not only the question of sanctity of titles, and the unfairness of the suggestion in the memorandum filed by the Nova Scotia Company where proved coal can be won at a low cost is to be taken and unproved territory given in exchange, but also the necessities to the existence of its undertakings of an ample reserve of metallurgical coal.

The Dominion Coal Company and its allied corporations have gone into the market eight times to secure money to acquire, build and prosecute its undertakings. It may have to go again; but what reception will its prospectus have if it becomes known to the financial world that its leases are to become the prey of anyone coveting its metallurgical coal?

"The company has taken a position from the beginning of this discussion that it is its duty to its shareholders and security holders to maintain its properties for the purposes for which they were acquired. It must also keep faith with the banking houses of

world wide reputation who bought its securities from the company and sold them to their clients. Common business honesty requires that this company maintains that position.

It is not the province of this board to do more than respectfully urge upon the Government the consequences that would follow interference with its titles granted after the discussion and sanctions already pointed out. Capital would shun investments in this province and the high reputation for integrity that the province enjoys would be tarnished. It is not in consonance with British institutions or the traditions of our race to nullify contracts by legislative action. So rigid are these principles fixed in the national character that it is given expression to on every occasion."—Financial Times.

#### Platinum Deposits in B. C.

Discussing the platinum deposits of British Columbia, which he investigated last year, Mr. Camsell says: "Considerable interest was shown in prospecting for placer as well as for lode platinum throughout the province as a result of the publicity given to the government's requirements, the establishment of a local market in the assay office, Vancouver, and the free assaying of platinum ores in that office. "For this reason he thinks that there should be a noticeable increase in the platinum production this year. The Tulameen District in the past, it is pointed out, has been the largest producer of platinum on this continent and to meet the urgent demands of the British Government this seemed to be the most likely field from which an extra supply could be secured.

Reference is made to investigations made in the Tulameen in company of Eugene Poitevin, who was making a study of the geological conditions under which platinum occurs in that district and comparing them with those in the Ural district of Russia, from which the greater part of the world's supply of platinum has been derived. He also visited the Nelson district and sampled deposits on Rover Creek, a Philadelphia chemist having been said by the owners of one of the properties visited to have made an assay return of 2½ ounces of platinum to the ton and considerable gold. Mr. Camsell tells of the putting of two drills to work at the mouth of Slate Creek by the Government following the engineers' reports. He does not say what was achieved, but the work was not continued after the signing of the Armistice, although the indications up to that time were promising. At any rate, as Mr. Camsell says, there was considerable more activity in the district during the year and some forty ounces of platinum were produced.

After speaking of investigations on Potato Creek, at the head of Jervis Inlet, where platinum was said to exist, and on Shuttleworth Creek, which enters the Okanagan Valley at Okanagan Falls, where the geology suggests the possibility of the existence of platinum, Mr. Camsell states that it has been known for years that the mineral occurs in the gravels of the Fraser River in association with placer gold. Traces have been obtained in the course of dredging operations at Hope, B.C. About three quarters of an ounce was obtained by J. Russel, of Lilloet, B. C., by cleaning up the tables of an abandoned dredge, which some years ago was in operation a few miles below that point. Considerable platinum also occurs in the gravels of the Quesnel River, and its presence was demonstrated last year on Government Creek, which enters the Fraser River about forty miles below Fort George.

#### Adanac.

With regard to the reports recently printed in contemporaries pointing out negotiations for control of the Adanac mine by English interests, the report has been found to have no foundation in fact, according to official information just to hand.

In the meantime, good results are obtaining at the mine, a considerable quantity of high grade ore being encountered.

#### Mining Convention at Nelson in June.

Eastern British Columbia is to have an International Mining Convention during the month of June. The scene of the gathering will be Nelson, B.C. When the proposed Spokane, Wn., Convention was postponed some time ago mining men of the Provincial Interior determined that they would undertake the organization of such an assemblage. The enterprise of the B. C. Chamber of Mines in staging the recent International Convention at Vancouver, B.C., was not then foreseen, but it is not proposed that that shall interfere with the meeting at Nelson. Preparations are well in hand. Strong representation is promised from the State of Washington and particularly from the City of Spokane and there will be delegates in attendance from all the Eastern British Columbia Mining Districts. It is likely that the programme will provide for the discussion of many of the problems peculiar to that section of the Northwest.

#### Will Develop Coronado and Victory Mines.

There are good prospects that the Coronado and Victory Mines, Omineca, B. C., will be actively developed. These properties have been taken over by the Skeena Mining and Milling Company, which is incorporated for \$250,000. The plant is being put in condition for operation. Water power is being taken from the Sloan and Halley Creeks and with this the plant will be able to develop 100 h.p. There is a concentrating mill similar to that of the Silver Standard Mine at New Hazelton and other equipment is to be installed which will permit the treatment of 100 tons of ore a day.

#### Mining Development in the Slocan.

Mining development in the Slocan and other Kootenay Districts of British Columbia is not lagging despite unfavorable market conditions. Andrew G. Larsen, a mining engineer interested in this section, explains that many properties, owing to the silver contents of their ore, are able to proceed with operations and store the lead if necessary. The Surprise, a silver mine at Sandon, B.C., is to be opened up and development is being vigorously pushed on the Noble Five because of its silver, the intention being to take the fullest advantage of the present market. A tunnel has been driven from which there is a raise to the ore bodies and the management is discussing the installation of a concentration mill. The mill also is to be started on the Cork-Province near Kaslo, B. C. The Florence Silver Mining Company has been operating its mill at capacity for several weeks and at less than capacity for months before. Silver bearing ore is being drawn from a number of its properties by the Canadian Consolidated Mining & Smelting Co. It is expected that the mill of the Silversmith Mines soon will resume operations, it being reported that development has resulted in the proving of a large body of good ore.

## Mineral Areas of Alberni Canal

Dominion Geologist Makes a Preliminary Survey of Prospecting at West Coast Points.

Mr. Victor Dolmage, of the Canadian Geological Survey, to whom was assigned the work of a reconnaissance survey of the mineral areas of the northern portion of Vancouver Island during the season of 1918, after having gone over the district contiguous to Quatsine Sound, proceeded to cruise down the west coast of Vancouver Island, and for three weeks examined as many mineral localities as time and circumstances would permit. Owing to the lateness of the season, states Mr. Dolmage, and to the fact that local guides were not always available, many of the deposits, and in some cases the best, were not examined. Some prospecting was done during the trip, and such observations on the geology of the region made as would suffice to outline plans for future work.

### *The Indian Chief Group.*

One of the properties visited by Mr. Dolmage was the Indian Chief, which is situated on Sidney Inlet, and which is one of the only two claims in this portion of the district which has reached the shipping stage—the other shipper being the Monitor, situated near the entrance to Alberni Canal.

The Indian Chief group, now owned and operated by the Tidewater Copper Company, has been worked at many times and by many different companies since 1897, and has produced a lot of high grade ore. At present it is equipped with a small oil-flotation concentrating-mill which is situated on the beach and connected with the mine by an aerial tram. The ore, which consists of bornite with small amounts of chalcopyrite and chalcocite, occurs in a garnetized limestone, capping a hill composed of granodiorite. The limestone, except at the very top of the mountain, is metamorphosed and signs of mineralization are plentiful. Some very rich bodies of bornite have been extracted from both the north and south sides of the hill, and some smaller ore shoots have been discovered in the main tunnel on the south side. The mill, which was completed only a little over a year ago, was operated for a few months only and at a considerable loss. This was partly due to the unsatisfactory nature of the machinery in the mill and partly due to an irregular supply of ore often of too low grade. The mill was shut down, and a shipment of picked ore was made direct to the smelter. At the time of the examination a small force of miners was carrying on development work in the main tunnel.

### *The Monitor Group.*

The Monitor Group of claims is situated on the north shore of Alberni canal just at its entrance, the mineralized zone extending back from the shore several thousand feet. The property was discovered in 1898 and during 1900 and 1901 steadily produced ore which was shipped to the Tacoma smelter. From 1902 it remained virtually idle until 1916. The present owner, Mr. Leonard Frank, of Alberni, bought the property some years ago, at a tax sale. Since 1916 it has been leased to James Skeen of Seattle, who has done considerable work on the various showings that have been discovered since his taking charge, and has installed considerable expensive equipment. The ore consists of pyrrhotite and chalcopyrite with small amounts of magnetite and

pyrite. It occurs chiefly in the altered limestone, which consists of calcite, quartz, garnet, epidote, and actinolite. Some of the ore is found in the metamorphosed volcanic rocks which are altered to epidote, chlorite and hematite. Like all the deposits of this type found on the west coast of Vancouver Island the ore is very irregular and the value of the mine, therefore, difficult to estimate. A considerable tonnage of shipping ore averaging 8 per cent copper has been proved and in the new showings there are large lenses of concentrating ore of medium low grade, but it is doubtful if sufficient ore has been proved to warrant the installation of a concentrating plant. At the time of the examination the mine was shut down on account of financial difficulties.

### *Black Sands.*

A visit was also paid to the Wreck Bay Beach placers lying between Kennedy lake and the West coast of the Island, and extending from Ucluelet to Tofino inlet in a flat coastal plain composed of unconsolidated sands, fine gravels, and thin beds of blue clay. The plain is about 60 feet above sea-level, and is bounded along the coast by a perpendicular wave-cut cliff at the foot of which is a beautiful beach sloping gradually out to sea. These sediments contain a small amount of black sand and fine gold which is being continually concentrated at the base of the cliff by the action of the waves. Prospectors and campers came periodically and cleaned up the gold by panning the black sand found at the foot of the cliff. Several attempts have been made recently to use small concentrating machines operated by hand or by small gasoline engines, but the amount of sand is too small for continuous operations and is soon worked out. A number of years ago some of the local settlers organized a company and installed a flume, and sluice boxes, from which were obtained several thousand dollars worth of gold, this being the first time these wave-washed concentrators had been worked. The gold probably comes from the gold-bearing quartz veins that are known to exist in the mountains to the west of Kennedy Lake. The quantity of gold in the sediment is much too small to be extricated commercially by working them where concentration had not already been effected by wave action.

### MINERAL DEPOSITS OF SOUTH AMERICA.

By Benjamin L. Miller and Joseph T. Singewald, published by McGraw-Hill Book Co., Inc., New York. Price \$5.

This excellent compilation of information concerning minerals and mines of South America has been written by two American geologists who made an extended trip through South America in 1915. They have during the past few years contributed a number of articles to the Engineering and Mining Journal on their observations. In this book their personal observations have been supplemented by a bibliography of the available literature. Many competent authorities have assisted the authors, both during their visit to the various mining districts and subsequently. Those who are interested in any way in the ore deposits of South America will find this comprehensive treatise very useful.



## Special Correspondence

### NORTHERN ONTARIO. Dome Mill in Operation.

The mill of the Dome mines has resumed operations after having been held in idleness for the past year and a half due to economic pressure caused by the war. The mill is now operating at a moderate rate, and will rapidly be brought up to a capacity of about 600 tons daily. Following the establishment of the required organization, the capacity will gradually be increased until a maximum tonnage of around 1,350 tons daily can be treated.

The policy of the management is to maintain a high degree of efficiency, toward which end a gradual building of forces will be necessary rather than the rapid accumulation of large forces.

### Work Resumed at Barton-Munro Property.

Work has been resumed on a small scale on the property of the Barton-Munro property, situated in the township of Munro.

### McKinley-Darragh.

The McKinley-Darragh mine is producing silver at the rate of about 1,100,000 ounces annually, according to figures based on the output for the first quarter of the current year. It is understood the output for the first quarter amounted to about 275,000 ounces, and that the value of production average about \$92,000 monthly.

Dividend disbursements at the rate of 12 per cent. annually call for the distribution of some \$67,428 every three months. In connection with this it is interesting to note that provided net profits amount to about 33 cents per ounce as was the case during 1918, the present net earnings amount to about \$30,000 monthly, or about \$22,000 quarterly above dividend requirements.

The oil flotation plant has just been set in operation, having a capacity re-treating some 250 tons daily of sands and slime from past operations.

### Tough-Oakes.

The development of the Tough-Oakes Gold Mines has assumed proportions of leading importance. During the month of April, according to official advice, approximately 1,016 feet was driven in the underground workings. A total of 98 men were on the payroll at the end of the month and seven machines were employed. It is evident, therefore that an average of close to 150 feet daily was accomplished with each machine during April. While in some of the work the speed attained was slower than the average, there were instances where drifting was carried on at the rate of around nine feet daily.

During the month a new vein, containing \$20 ore across the full width of the drift, was encountered and opened up for considerable distance. Development work on other veins also proved satisfactory and a considerable tonnage of ore is being either broken or blocked out ready for treatment just as soon as the management consider the time opportune to re-open the mill.

The company now has about \$140,000 in its treasury after having retired all debts, and it will not be neces-

sary to start milling prematurely in order to meet financial obligations.

### Plant for Charette Property.

The installation of steam driven plant on the Charette property in the township of Boston has been completed, and will greatly expedite the exploration and development of this promising prospect.

### Casey Mountain.

The Casey-Mountain Syndicate, operators of the property of the Casey Mountain Mining Company, Ltd., has let a contract for driving a 200-ft. cross-cut.

The property is situated about two miles north-east from the Casey-Cobalt mine, situated in the township of Casey. A shaft has been driven to a depth of 425 feet, during the course of which work, a layer of diabase about 320 feet thick was cut, followed by a layer of conglomerate about 110 feet thick, underlying which is keewatin formation. The geology, therefore, is considered favorable, and exploration will be directed in that zone immediately above the conglomerate-keewatin contact.

While sinking the shaft, commercial values were encountered in a fracture occurring in the diabase formation. At one point, it is stated, values average about thirty ounces of silver to the ton over a width of several feet.

### Temiskaming.

Reports continue to the effect that the Temiskaming mine has developed an important orebody at the 500-ft. level. In spite of the absence of official confirmation, it is reported in usually well informed circles that the vein has an average width of upwards of four inches, and is composed of high grade ore, in fact the discovery being reported to be one of the richest ever made in the mine. It is stated that about sixty feet of drifting has already been done as well as about thirty-five feet of raising.

### Mining Corporation.

The Mining Corporation of Canada will diamond drill on its property in the south-eastern part of the township of Bucke for the purpose of exploring the much discussed contact which may be traced for several miles, running in a north-westerly direction. A hole will be driven to cut the contact at a depth of about 300 feet.

### Power for Miller Independence Mine.

A conference was held this week between Miller Independence interests and the Northern Ontario Light and Power Company, and an agreement reached whereby the power company will construct a transmission line to the property, from its main Kirkland Lake line. The necessary motors and equipment is being placed on order so as to eliminate any chances of delay in changing from steam to electric power, immediately following the completion of the transmission line.

This week machines are being put to work in the incline shaft where such rich gold telluride ore was opened up during the last half of 1918; also, a station is now being cut at the 200-ft. level of the new central shaft so as to make room for setting up a diamond drill machine preparatory to carrying out exploration work well in advance of actual development work.

### Will Operate Huronia Mine.

The power line to the Huronia Mine, at Beaverhouse Lake, in the Larder Lake gold area, is being repaired, following which mine operations will be resumed. The old and obsolete mill is being torn down, and, should development work prove to be satisfactory, a new mill will be constructed at some later date.

### Wisconsin-Skead.

A statement has just been issued by the Wisconsin-Skead Mines, in which assay results are enumerated, showing considerable commercial ore has been opened up on the company's property, situated in the township of Skead.

Diamond drilling carried on to a depth of nearly 600 feet indicated ore at that depth.

### Encouraging Prospecting.

An article which appeared in the Canadian Mining Journal in its issue of April 30, dealing with the question of "Encouraging Prospecting," is being read with interest by mine operators in Northern Ontario. The article, which has evidently been prepared with a good deal of thought, has a ring of sincerity and contains a number of suggestions that should prove beneficial, if carried out. Six points are brought out, all of which appear to deserve careful consideration. The six points are these:—

"1. The levying of 2 per cent. tax on all profits in mining, such money to be expended by the company paying the tax in actual prospecting and under their sole supervision and for their sole profit.

"2. Increase geological work by the Government.

"3. Government night schools for prospectors.

"4. Collection of minerals at all Government recording offices, night schools, and other localities were of advantage to the prospector.

"5. Five free assays with each miner's license.

"6. Government testing plant, where small lots of ore could be sold."

The foregoing forms the substance of the Journal's article.

To deal with these points separately, it should be pointed out that with regard to suggestion No. 1, that of all the mining companies which have won success in mining the amount of money spent annually in prospecting is even now very considerable. In some instances the annual outlay is greatly in excess of 2 per cent. The writer is of opinion that a direct tax for the purpose would only involve unnecessary red tape. Indeed as matters now stand the large army of independent prospectors in the field derive a good deal of support from the successful mining companies which are ever on the alert for new property. There would not appear to be any necessity of a direct tax for the purpose.

With regard to point No. 2 there appears to be room for adding to the extent of geological work, particularly in the northern districts. With regard to this, it is understood a very extensive programme has already been decided upon this year by the Government.

Concerning point No. 3, the suggestion that a system be provided for the purpose of giving the prospectors the benefit of a short course in geology and mineralogy appears to be one worthy of the united support of all mining men.

Points No. 5 and 6 could be dealt with jointly. With regard to these, it will be interesting to turn

to the official announcement in this issue which conveys the information that the Ontario Government has taken over an ore sampling plant in Cobalt. This plant, it will be noted, is equipped for sampling shipments of ore either in small lots or in carload lots. Thus, the shipper, no matter how small or large, learns the value and content of his ore and, in the case of silver ore, can dispose of it to local mining companies who are in the market for ore, or, in the case of other mineral can find a market at whatever point equipment suitable to treat it is in operation.

With regard to the ore sampling plant it has not yet been learned whether or not an assay business will be conducted in connection with the plant. It would appear to be probable, however, that such will be the case. The suggestion might not be remiss that the Government should take this phase of the question into consideration and conduct an assay business for the benefit of prospectors, the latter to be charged only the actual cost of making the assay.

### Government Takes Over Sampling Plant.

At the request of mining men of this district the Ontario Government has decided to provide the mines of Northern Ontario with ore sampling facilities, toward which end an arrangement having been concluded with the Temiskaming and Northern Ontario Railway Commission to take over the plant of Campbell & Deyell, at Cobalt, and at once put it under the supervision of Arthur A Cole, Mining Engineer for the railway.

Early in the current year mining concerns grew alarmed over the announced intention of the firm of Campbell and Deyell to close its sampling plant. An appeal was addressed to the Dominion Government through Hon. Frank Cochrane, M.P. for this district. The appeal was ignored. The facts of the case were then placed before the Ontario Bureau of Mines, and the great inconvenience that would devolve upon the mines as well as prospectors were shown and were quickly recognized by Hon. G. Howard Ferguson, Minister of Lands, Forests and Mines. Negotiations were entered into almost immediately, with the result as stated above.

Mining men in general appear to recognize the fact that this movement on the part of the Ontario Government is somewhat of a departure from the usual procedure, and was only taken after becoming firmly convinced of the great importance of such a plant to the mining camp. The step is looked upon as another demonstration of an earnest desire to lend the utmost encouragement and assistance to the mining men of this province.

At first it had been supposed that any one of several leading mines of Cobalt could easily afford to purchase and operate the ore sampling plant, but this belief was not well founded because of the fact that these mines are in the market to buy ore from other mines, and naturally desire independent interests to appraise the value of any such purchases of ore. It should be pointed out that an ore sampling plant such as that of Campbell and Deyell's just taken over by the Government, serves as medium by which the vendor of ore can determine the content of that which he desires to sell, and the purchaser learns the value of that which he desires to buy. In shipping ore to southern smelters it is found possible to appraise the value of the shipment here, the smelter accepting the figures given. This makes it unnecessary to either

send representatives to the smelters to keep tab on the ore in process or take pot luck on the returns.

Therefore, in taking over the plant and assuring its continued operation, the Ontario Government has taken a step that will probably meet with universal approval, not only in the mining camps in this part of Northern Ontario, but in all mining camps where the value of such assistance to the mining industry is fully understood.

#### Minister of Mines Visits Northern Ontario.

Hon. G. Howard Ferguson spent several days touring the northern district in connection with the huge construction program which has been decided upon by the government. The Minister of Lands, Forests and Mines came north on May 6th, returning south May 11th. During the course of his tour, he visited Elk Lake in connection with the Elk Lake Gowganda waggon road, later calling at Boston Creek, thence at Kirkland Lake in connection with the plan to construct a first class motor road for the benefit of the mines. It has been officially stated that the railway project to the camp will be held, pending further development. The decision to build a motor road is in compliance to the wishes of the leading mine operators of the camp, the government having previously announced its intention to build a railroad. The Minister also visited Timmins in connection with the extension of the railway from Timmins to Temagami Heights, later continuing on to Kapuskasing.

#### Hollinger Force is Growing.

The Hollinger Consolidated has upwards of 1,300 men employed, and intends taking on an additional 450 just as soon as that number can be conveniently absorbed, it has just been learned. Efficiency is gradually increasing and the mine is gradually increasing its volume of output.

With a force of perhaps 1,750 men on the pay-roll before the end of the summer, it can at once be reckoned the very extensive community that is rising round about the mine. In addition are a number of other important mines. As a consequence, the town of Timmins is growing rapidly in population and the building program is totally inadequate to meet the situation.

#### United Porcupine.

The United Porcupine Mine, situated a short distance south from Golden City, in the township of Whitney, has been sold, it is reported. The property was worked a good deal prior to the fire of 1911 which destroyed the mining plant. Since that date, not much work has been done. New York interests are said to have purchased the property.

#### Fidelity.

On the Fidelity property, which adjoins the La Belle-Kirkland Mines on the west, sinking operations have been carried to a depth of about 100 feet. The vein, which showed a width of but two feet at a depth of 40 feet, has widened out, and at the present point of operation is said to be about eight feet in width.

Although sampling has not been systematically carried out, the heavy mineralization of the vein is encouraging.

#### La Belle Kirkland.

The Goodfish Lake section of the Kirkland Lake district is coming in for increasing attention. Encouraging developments on the property of the Fidelity Mining Company, together with the fact that a plan is under way, which, if successful, the La Belle-Kirkland Mines will be again operated on an extensive scale, is serving to rejuvenate activity among the property owners in that vicinity.

Although reports that the La Belle-Kirkland will resume operations immediately are somewhat premature, yet the development is considered a probability within a reasonably short time. The plans now being carried out by the La Belle is to sell 500,000 shares or less, of its treasury stock. On April 1st, of this year, the stock in the treasury amounted to 779,292 shares. This plan, if successful, would enable the company to at once proceed with development work, and in due course should add another producing mine to the Kirkland Lake list.

According to official information the main shaft has been carried to a depth of 360 feet. Drifts and cross-cuts aggregate 1,150 feet. During the course of previous work some five veins have been opened up. In the main workings on No. 1 vein exposures of ore range from four to ten feet in width and contain average values of about \$10 to the ton. Above the 275-ft. level, according to official estimates, some 40,000 to 50,000 tons of ore is in sight.

Up to the present the company has spent about \$170,000 on the property, the operation having been conducted in a conservative manner under the management of Frank C. Loring. Diamond drilling performed about two years ago indicated the presence of ore to a depth of 700 feet.

#### The Tough-Oakes Merger.

Although official information on the subject is lacking, it is reported in regard to the proposed merger of the Tough-Oakes Gold Mines, with the Burnside and the sylvanite properties and the Aladdin-Cobalt Company, that the basis of exchange, as proposed, would work out at about \$1.05 per share for the Tough-Oakes, it being intimated that the basis of exchange would be Tough-Oakes, one pound; Burnside, one pound; Sylvanite 10 shillings; and Aladdin 13 shillings.

#### Bourke's Gold Mines.

The Bourke's Gold Mines, operators of property at Bourke's Siding a short distance north-west from the Kirkland Lake field, has begun collecting data and making preliminary arrangements with a view toward proceeding with the installation of a small mill during the coming fall provided development work continues favorable.

As yet, the vein has been found to be comparatively narrow, the most extensive ore shoot being at the 100-ft. level, where the deposit shows a commercial gold content over a width of about twenty-eight inches and about 160 feet in length. The workings have since been carried to a depth of 200 feet, but sufficient lateral work has not been carried out to determine the extent of the ore shoot at that depth.

At the present time, the capacity of the mining plant is being increased with a view to carrying development to a depth of 500 feet. With this work completed, and followed by a reasonable amount of lateral work, the plans for the construction of a small mill will perhaps take concrete form.

### Porcupine Crown.

Mr. Harry Darling, manager of the Porcupine-Crown Mines, is expected to arrive in camp about the middle of May, following which the mill will be tuned up preparatory to resuming production. Satisfactory progress is being made in operations made necessary by the cave in of the mine earlier in the year.

It is proposed to also carry operations to a depth of about 1,400 feet, as well as conduct further exploration work by diamond drilling.

### Porcupine V. N. T.

Friction between the American and English interests involved in the Porcupine V.N.T. appears to have developed. Officials, while not denying the reports, are reticent. It is reported in usually well informed circles in the north that there appears to be some possibility of the withdrawal of either one of the factions. Reports have it that the English interests might, or perhaps have already done so, make a bid with a view to purchasing the interests of the American holders. The property has long since been looked upon as one of large merit. Lack of harmony has been a factor in retarding work on previous occasions as well as the present. The financial standing of the company is difficult to ascertain, but an official informed your representative that close to three-quarters of a million shares still remains in the treasury.

## BRITISH COLUMBIA.

### Fire at Princeton.

Railway construction men on strike at Princeton, B. C., became troublesome towards the end of April and are charged with responsibility for a fire which broke out at the Princeton Coal and Land Company's plant. That the outbreak was incendiary in its origin is supported by the fact that the hose, with which an effort was made to control the flames, was found to have been cut. While no definite particulars have been secured as yet it is not believed that serious damage resulted. Detachments of the Royal Northwest Mounted Police have been dispatched to the scene and it is confidently expected that order will be restored in a short time.

### Merritt Collieries.

Satisfactory progress is being made in the opening of the new No. 3 Mine of the Merritt Collieries, Ltd. Two slopes have been driven as well as two levels. Thos. Rowbottom is in charge of the work.

### Work Resumed at Wakesiah Mine.

The Canadian Western Fuel Company are continuing the development of the Wakesiah Mine. This work was pressed forward for some months and then stopped. Its resumption is taken to indicate the company's intention to put the mine on a producing basis as soon as possible.

### Pumping Out Coal Mines at Suquash.

The Pacific Coast Coal Mines, Ltd., have pumped the water out of its old mine at Suquash, Vancouver Island. This property has been idle since the year 1914. With a ready market and good prices it is likely that the company proposes making it productive without delay. This mine is situated in what is known as the Suquash Coal Field of the Island, approximately 170 miles north of Nanaimo, B.C. Comparatively little active development has taken place in that section.

### Activity at Kaslo.

Reports indicate mining activity in the district traversed by the south fork of the Kaslo Creek. With development being carried on at the Gibson Mine, and the Index, and with the Silver Bell added to the list of shippers; with the continuance of operations at the Cork-Province, which was closed down for a short time during the winter on account of the shortage of wash water for concentrates, the outlook is good. The increased attention being received by the properties of this section is their generally high values in silver.

### Ore Testing Laboratories.

Hon. Martin Burrell, Minister of Mines in the Dominion Government, deals with the proposed establishment in British Columbia of one or more ore testing mills in a letter to F. A. Starkey, of the Associated Boards of Trade of Eastern British Columbia. He says: "Such a plant would be a branch of our ore-testing laboratories in Ottawa and would deal as far as possible with the various problems connected with the treatment of all minerals in order to stimulate prospecting and the development of those extensive mineral regions which have had little development work done on them, as well as the taking up the question of the treatment of various kinds of ores, the value of which it might be difficult to ascertain by those who could not afford to ship so far as it involved in sending to Ottawa. In any case it will necessarily take some time before we can get anything actually constructed and we hope to make an examination of some of the later ore-testing laboratories in the United States and shall give the fullest consideration to the situation in British Columbia, including that of the Kootenays, before decision will be reached."

### Ground Caves at Phoenix.

An immense cave-in has occurred in the workings of the Granby Mine at Phoenix, B. C. No serious damage, however, is reported as such an occurrence was not altogether unexpected. The Great Northern and Canadian Pacific Railway companies' rails are not being used in the vicinity of the break so that a temporary interference with transportation has resulted. Residents are moving from the affected area.

### Drilling for Oil in East Kootenay.

Drilling for oil in the Flathead District of East Kootenay is to be continued by the B. C. Oil & Coal Development Co., Ltd., headquarters Union Bank Bldg., Victoria. Four test wells had been put down before the war brought out and some oil had been taken from two of them. Arrangements were being made for the sinking to a greater depth when the outbreak of hostilities made it impossible to complete the financial arrangements. It now is hoped to complete the work and the company's directors appear to be confident of success.

### Gold Strike Near Fairbanks.

Information has been received at Prince Rupert of a gold strike in Alaska, not far from Fairbanks, the scene of the find being more exactly described as on the Stuyhok River, a tributary of the Bonisilla, good prospects having been found on Henderson, Last Chance and Flat Creeks. One hole put to bedrock on bench ground netted forty cents to the pan from a general average of ten pans. At the time word was dispatched there were about 100 men on the ground and grub was reported to be scarce.

**Reduction in Ore Treatment Rates.**

The management of the Consolidated Mining & Smelting Company has issued a circular under date of April 23rd, 1919, announcing a reduction of ore treatment rates at the Trail Smelter. It reads as follows:

*To Lead Ore Shippers*

Schedule B. lead ore rates provides for adjustment of the base rate up or down on the increase or decrease in the prices of coke or labor as follows:

On the price of coke 25 per cent of the increase or decrease per ton.

On the price of labor per shift 1½ per ton for each 1c charge per shift.

The last adjustment was an increase effective August 1, 1918, as outlined in our circular of August 27th, 1918, which amounted to 80c per ton.

The price of coke has advanced since then 40c per ton, which indicates an increase of 10c per ton of ore.

The price of labor has decreased since then .3646 per shift, which indicates a decrease of .55c per ton of ore.

The prevailing base rate of \$8.30 per ton will be reduced, effective April 15th, 1919, 45c per ton, or from \$8.30 to \$7.85 per ton of ore.

Since the beginning of the year fifty-four mines have shipped ore to the Trail smelter. The total number of tons of ore shipped for the period is 117,964. During the week ending April 21st last a total of 7,420 tons was shipped to the plant. Following are the shipments for the year to date:

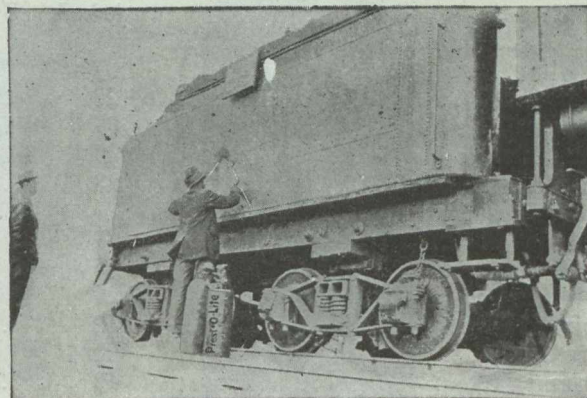
Districts.	Totals in Tons.
Boundary . . . . .	22,832
East Kootenay . . . . .	111,120
Nelson and Salmo . . . . .	446
Rossland . . . . .	38,825
Slocan and Ainsworth . . . . .	3,066
American Mines . . . . .	186
Miscellaneous . . . . .	113

**Atlin District Should Have a Canadian Seaport.**

Archbishop Du Vernet, of British Columbia, has published an interesting suggestion for the consideration of the Canadian authorities, the object of which is the opening up of the northern mining districts of this Province to larger and more rapid development by making feasible the provision of better transportation facilities than now are available. His proposal is best explained in his own words, as follows:

"Now that the Peace Conference has introduced us to the very sensible idea of a corridor to allow a shut-in nation access to the sea we should press the Canadian Government to secure a corridor up Taku Inlet in Alaska to allow the Atlin District to have a Canadian sea-port. A narrow strip of territory about twenty-five miles long would be quite sufficient, and as there are no settlers there at present there would be no complications, as there would be at Skagway. The shortest and easiest way into the rich mineral region of northern British Columbia (once a road were made) is up the Taku River. The Taku and Nakina rivers form almost a direct line to Teslin Lake at the north end of which is the placer gold field lately discovered. It is well-known that almost every creek in the Atlin District carries gold, but inadequate means of transportation retards the development of the country. The Government of the United States is now in a most friendly mood towards Canada, and a greater output of gold is demanded."

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**MARKETS.**

**Standard Mining Exchange**

The following are the closing prices on the Standard Mining Exchange, Toronto, May 17th:

	Asked.	Bid.
<i>Gold:</i>		
Apex .. . . . .	41½	4
Baldwin .. . . . .	37	35
Boston Creek .. . . . .	28	25
Davidson .. . . . .	69	68
Dome Extension .. . . . .	33	32¾
Dome Lake .. . . . .	23	..
Dome Mines .. . . . .	..	15.00
Eldorado .. . . . .	1¾	¾
Gold Reef .. . . . .	5½	5⅛
Hollinger Con. .. . . . .	7.24	7.20
Inspiration .. . . . .	12	..
Keora .. . . . .	21¼	21
Kirkland Lake .. . . . .	49	..
Lake Shore .. . . . .	116	..
McIntyre .. . . . .	187	185
Moneta .. . . . .	121½	101½
Newray Mines .. . . . .	18½	18
Porcupine V. & N. T. .. . . . .	24	23
Porcupine Crown .. . . . .	33	32
Porcupine Gold .. . . . .	1½	1¼
Porcupine Imperial .. . . . .	1¾	1½
Porcupine Tisdale .. . . . .	3	2⅞
Preston .. . . . .	4½	4¼
Schumacher Gold M. .. . . . .	33½	33
Teck-Hughes .. . . . .	21½	21
Thompson-Krist .. . . . .	8¾	8½
West Dome Con. .. . . . .	15	14½
Wasapika .. . . . .	62	60
<i>Silver—</i>		
Adanac .. . . . .	22¼	22
Bailey .. . . . .	4¾	4¼
Beaver .. . . . .	46	..
Chambers-Ferland .. . . . .	14½	13⅞
Coniagas .. . . . .	3.00	2.75
Crown Reserve .. . . . .	44	..
Foster .. . . . .	5	4
Gifford .. . . . .	3¼	3⅛
Great Northern .. . . . .	5	4
Hargraves .. . . . .	4¼	..
Kerr Lake .. . . . .	6.20	5.80
La Rose .. . . . .	50	45
McKinley-Darragh .. . . . .	60	60½
Mining Corp. .. . . . .	..	175
Nipissing .. . . . .	12.50	..
Ophir .. . . . .	8¾	8½
Peterson Lake .. . . . .	9⅞	9⅜
Right-of-Way .. . . . .	4½	4
Silver Leaf .. . . . .	4	3½
Seneca-Superior .. . . . .	2	..
Timiskaming .. . . . .	44½	43½
Trethewey .. . . . .	43	41
Wettlaufer .. . . . .	..	5½
York, Ont. .. . . . .	2	..

**VANCOUVER STOCKS.**

(Closing prices, May 12.)

	Bid.	Asked.
<i>Mining—</i>		
Bowena Copper .. . . . .	..	.30
Cork Province .. . . . .	.01⅞	.02⅞
Drum Lummon .. . . . .	.20	.26
Granby .. . . . .	65.00	..
Howe Sound .. . . . .	3.25	..
International Coal .. . . . .	.24	.28
Lucky Jim .. . . . .	.02⅞	.02½

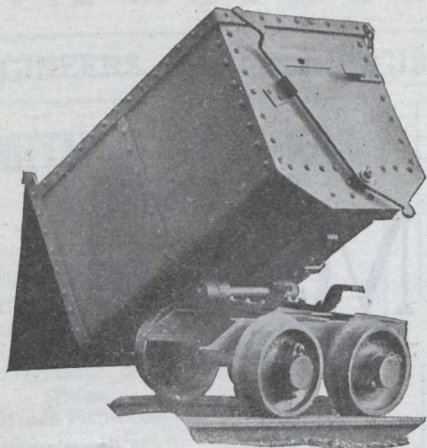
Nugget .. . . . .	..	.28
Rambler-Cariboo .. . . . .	.05	..
Rocher de Boule .. . . . .	.12	..
Standard Silver Lead .. . . . .	.23	.30
Surf Inlet Golf .. . . . .	.42	.44½
Utica .. . . . .	.05	..
Sunloch Mines .. . . . .	..	.35
Silversmith .. . . . .	.13	.17
Hazelton Gold-Cobalt .. . . . .	.03½	.04¼
<i>Oil—</i>		
Athabasca Oil .. . . . .	.46	.60
Alberta Pet. Con. .. . . . .	.01¼	.01¾
Beaver Oil .. . . . .	..	.00⅝
Canada Oil & Ven. .. . . . .	.00¼	.00½
Pitt Meadows .. . . . .	.15	.20
Record Oil .. . . . .	—	.07
Southern Alberta .. . . . .	3.00	..
Trojan Oil .. . . . .	.07⅞	.07⅞
Spartan Oil .. . . . .	..	.19

**Dynamite Explosion at Issaquah Mine.**

A ton of dynamite in the powder house of the Pacific Coast Coal Company's Issaquah coal mine exploded on Saturday night, April 5th. The town of Issaquah Wn. was rocked, several mine buildings being wrecked and a number of other houses damaged. The loss is estimated as between \$5,000 and \$10,000. No one was injured. John Kerr, night watchman, explains that he was making his rounds and was due to register at 10 o'clock. He was nearing the powder house when he noticed smoke, and stepping closer he recognized the spitting flame of a fuse. Kerr turned and ran towards the office, reaching it just as the powder house went up. Besides shattering windows in seventy-five to one hundred houses in the immediate vicinity, the side of the compressor house was blown in. It is not thought, however, that the compressor or other machinery was damaged. The timbers at the mouth of the mine were blown down. It is suggested by the evidence that the explosion was deliberately planned and in this connection it is recalled that the Issaquah Coal Mining Company, as it formerly was known, was controlled by Alvo von Alvensleben, a German interned at Fort Douglas Utah, and who is said to have been backed by the personal capital of his Emperor. Alvo von Alvensleben, it may be stated perenthetically, has coal mining interests in British Columbia, the most notable being what is commonly known as the Jingle Pot Mine, Vancouver Island, which still is a producer.

**Belmont Surf Inlet.**

A report covering the operations of the Surf Inlet Mine by the Belmont Surf Inlet Company up to the end of 1918 has been received. The net earnings of the company amounted to \$323,242. A loan was made to the company by the Tonapah Belmont Developing Company, amounting to \$1,295,726, and interest has been paid. The average metal contents of 83,142 dry tons of ore milled was 0.481 oz. in gold; 0.3114 oz. in silver, and 0.2606 per cent copper per ton, giving a total value of \$924,847, or \$11.09 per ton. The ratio of concentration is 11.09 to 1, making 7,498 dry tons of concentrates having a gross value of \$854,537. Operating costs were seriously affected by advanced prices paid for supplies and by abnormally high labor costs. The sum of \$45,569 was spent in the construction of a store, schoolhouse, and houses for employees. The dividends of 5 per cent was paid on April 15.



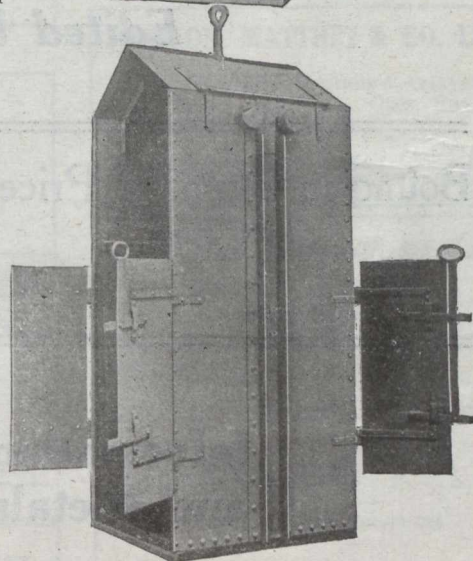
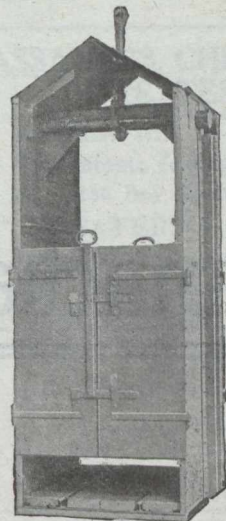
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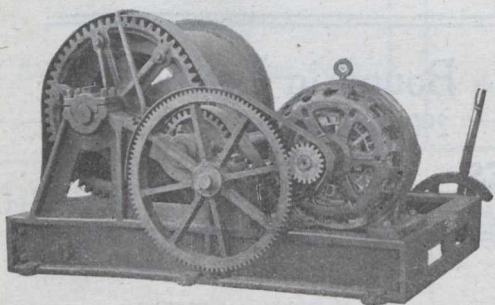
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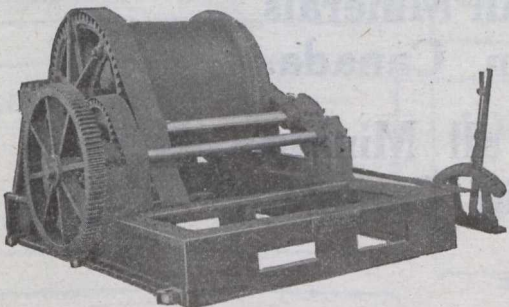
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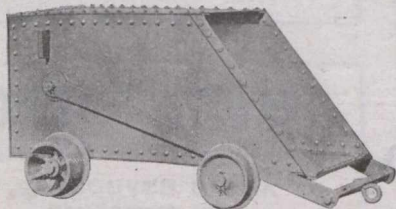
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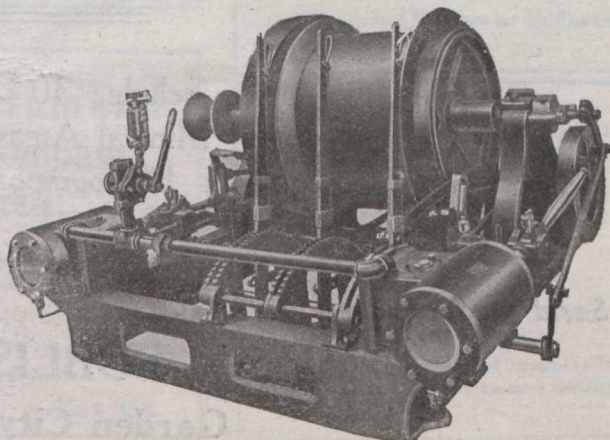
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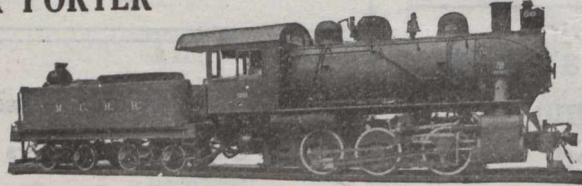
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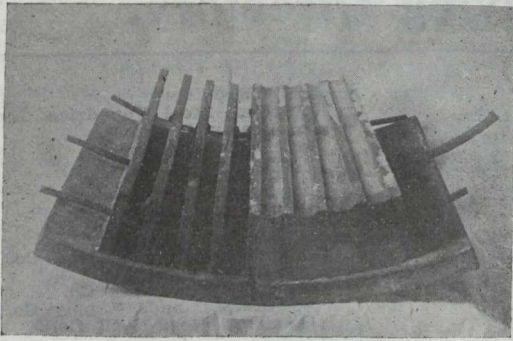
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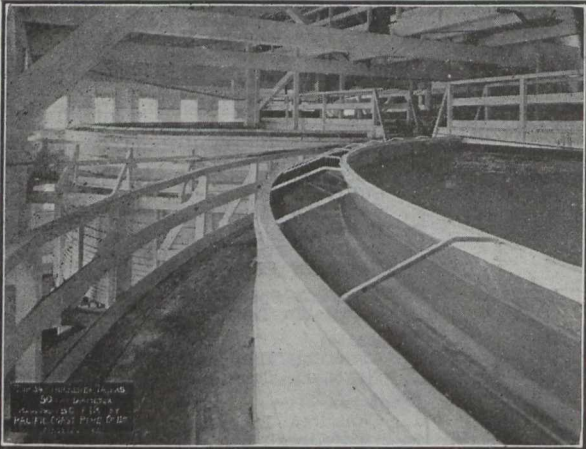
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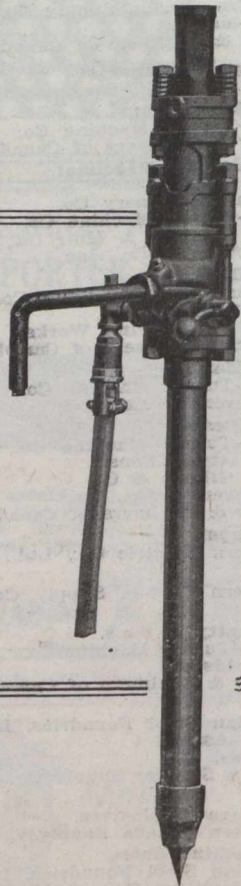
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Mine & Smelter Supply Co.
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Dewar Mfg. Co., Inc.  
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- Manganese Steel:**  
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Consolidated Mining and Smelting Co. of Canada.  
Canada Metal Co.  
C. L. Constant Co.  
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International Nickel Co.
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- Steel Castings:**  
Canadian Brakeshoe Co., Ltd.  
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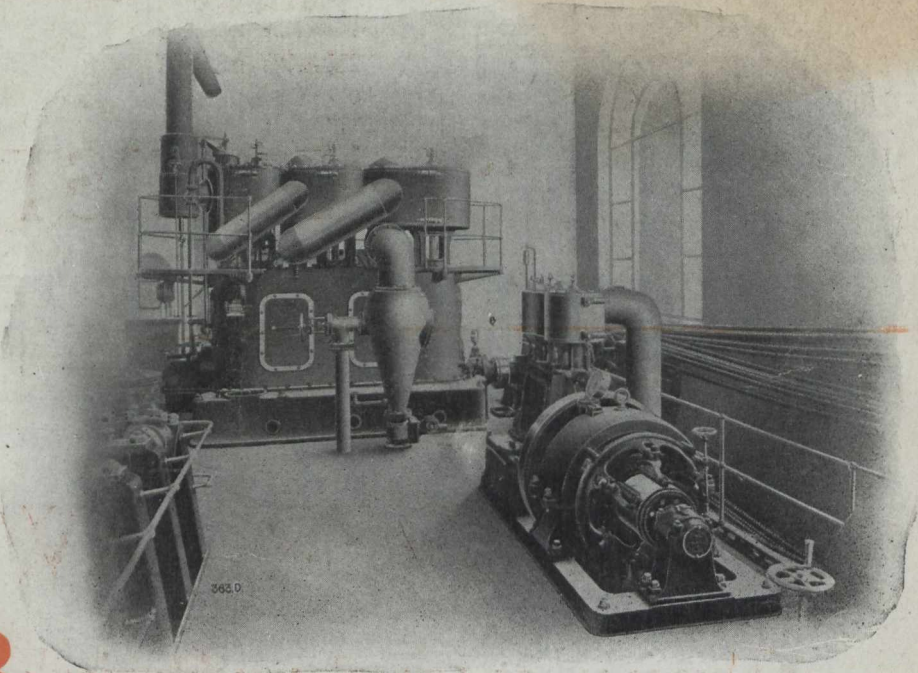
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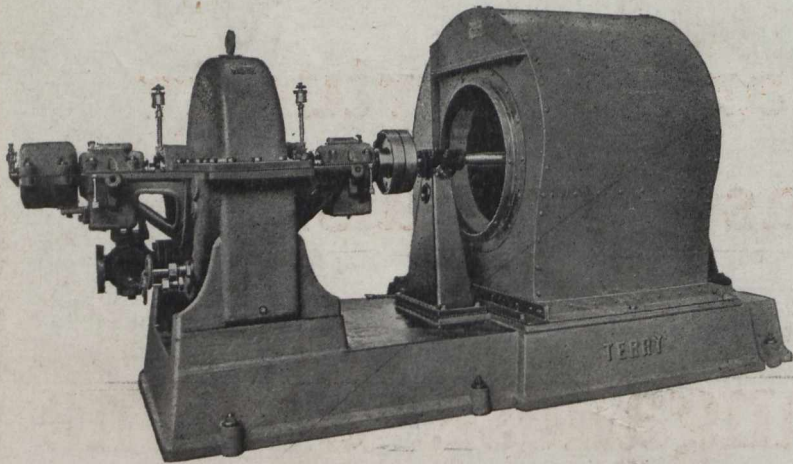
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