

EDITORIAL

UNREST.

A protracted period of high cost of living has had its natural consequence—widespread unrest. Now comes a demand for shorter hours of labor, which would naturally lead to higher cost of production of essentials and consequently further increase the high cost of living. The unrest is not surprising, for the purchasing power of money has greatly depreciated. The long and costly war has imposed a great burden on people in all parts of the world. The endeavor of various classes to shift the burden onto others naturally bring discontent.

The labor unions are at present engaged in an endeavor to improve the condition of their members, and it is quite proper that they should do so. Other citizens will sympathize with members of the unions, but they also are affected by the high cost of living and they will not take kindly to a movement that will give costs another boost. The labor unions would be more popular with the rest of the community if they would endeavor to bring down the cost of living while maintaining wages at the present standard.

In the mining industry the eight hour day is already in force in Ontario for underground workers. It is generally necessary to have some of the surface men work a little longer. We need not expect any radical change in hours at Ontario mines so long as miners are willing to do a reasonable day's work. A miner can, if he wishes, do a good day's work in eight hours. A very much shorter day would, however, make mining a farce, and make inadvisable the furnishing of capital for developing and equipping mines.

In the search for properties and in their development much money is expended without any return. The workmen get their wages, but the men who supply the money are more likely to lose than gain. They run the risk in the hope of finding a prize; but the prizes are few. If there are no prizes there will be no one to risk the larger expenditures and there will be no new mines developed. The capitalist must depend on the miner to do his part and he must see that the miner gets a reasonable wage. The miner also must keep in mind the fact that those who supply money to develop mines are making profitable work for the miner. There must be co-operation or there will be no mining.

Mining is a hazardous occupation and the men who engage in it should receive higher wages than men of corresponding ability in many other occupations. Unless mining can be so conducted that all who engage in it can earn a decent living and enjoy a reasonable share of the good things of life we might better have no mining industry. If by unrest in other industries the cost of living is increased, is it reasonable for the miner to keep alive that unrest by supporting it in any way? In his own interest he should try to keep down the cost of living. It is reasonable for miners to unite their forces to obtain better conditions in their own industry, but it seems to us that in the present situation their natural allies are their own em-

ployers. They must, of course, make satisfactory terms with their employers; but they might well recognize that they have in high costs a common enemy.

There has been much in evidence lately the term "collective bargaining." What this may mean needs definition in every case. In some cases, for instance, all the employees of a company might collectively bargain with their employers, or all the miners in one district might collectively bargain with the employers in that district. These are simple cases such as are of frequent occurrence. When, however, miners in widely separated districts unite and wish to deal with their employers through officials of such unions rather than through local unions, we generally find trouble. This trouble arises not so much from the method of procedure as from the history of the international unions. This has been the stumbling block in many cases. Now that several more years have passed, years of much greater consequence than many preceding ones, without the chief international union giving many indications of behaving as in the past, we might perhaps do well to forget its history and live more in the present.

Collective bargaining may also be interpreted to mean bargaining with employees or representatives of employees in some other industry. This seems to us, as indicated above, an unwise proceeding. The present conditions in some industrial centres seem likely to give their method of bargaining an unsavory reputation.

There is unrest in the mining districts as elsewhere. The gold and silver mines of Northern Ontario are in splendid shape to make a good showing this year. As compared with some mining districts the demand for labor at Cobalt, Porcupine and Kirkland Lake will be exceptionally good. It is reasonable to expect that the miners in these districts appreciate their good fortune. It is not possible, however, that they will escape the unrest bug altogether.

POWER FREIGHTER CARRYING ORES AND MINING SUPPLIES.

At the time of taking over the Dolly Varden Mines the Taylor Engineering Company is running the trials of its new large power freighter, the Teco, which will carry supplies and general cargo to all way ports en route to Alice Arm and to the Dolly Varden properties, and bring back cargoes of concentrates from the mine property. The Teco is intended to be the first of a fleet of power freighters for the British Columbia coast trade; the fleet to be controlled by the Taylor Engineering Corporation.

Additional interest is created owing to the fact that the crew of the new craft will consist entirely of men from the motor boat patrol service. She will be under the command of Lieut. E. C. Godfrey, who is the son of Mr. Godfrey, of the Bank of B. N. A., Vancouver, B.C., and who has recently returned from long service overseas.

The Teco was designed and built by the Taylor En-

gineering Company and has a 300 ton deadweight cargo capacity. She is so constructed that she can be turned into an oil tanker at seventy-two hours notice. She is 125 feet long with a 23-foot 6-inch beam and is driven by 200 h.p. Bolinder type engines. Her fuel capacity will give her a 1,600-mile cruising radius and she is designed to develop a speed of $8\frac{1}{2}$ knots when fully loaded. She has accommodation for a crew of twelve men.

The Teco is to be docked after her trials and after the installation of a special quick-handling deck winch of a new type in about three week's time she is expected to take up her regular run.

FEDERAL EMBARGO ON GOLD EXPORTS.

The following letter addressed by the Mining Bureau of the Board of Trade of Vancouver to the Minister of Finance, Sir Thomas White, is of general interest to our readers, and points out clearly a weakness in the Federal measure which is intended to prohibit the free export of gold out of Canada:

"The Mining Committee of the Board of Trade of Vancouver note with pleasure that, with a view to conserving the financial strength of the Dominion the export of gold from Canada will be prohibited except with the consent of the Government. Permit us to point out to you that your regulation, however, only applies to gold in the bullion form. As a matter of fact five-sixths of the gold produced in British Columbia is derived from complex sulphide and copper ores, and while the ores mined by the Consolidated Mining & Smelting Company are now refined in this country and their gold product available to strengthen your gold reserve, the remainder is shipped out of Canada to American smelters and refineries, and you lose the benefit of that gold for your national purpose unless you provide that, for such gold exported in concentrates or blister copper, an equivalent shall be returned to the Treasury at Ottawa by the American smelters and refineries receiving the products from this side.

For instance the Belmont Surf Inlet Mining Company shipped to Tacoma Smelter in the State of Washington last year about \$1,000,000 of gold contained in concentrates. The Tacoma Smelter has a refinery in connection with its smelter so that no hardship is inflicted on anyone by requiring the Belmont Surf Inlet Mining Company to arrange with the Tacoma Smelter for the return to the Dominion assay office at Vancouver of the gold bullion obtained from its concentrates.

While you cannot, of course, control American Smelters and refineries, you can provide that the Canadian Companies shipping gold under such conditions shall arrange to have that gold or its equivalent returned to Canada.

We submit that, unless you make provision, your purpose will be largely defeated, desirable as your policy is to conserve international credit; and venture to make the suggestions conveyed in this letter to make your plan as effective as possible.

We hope such a policy will lead to the refining in Canada of all metallic products of this country, to the national enrichment; the employment therein of our own people and natural resources such as the water power; and any co-operation this Bureau can offer you in such a policy will be cheerfully given.

Yours truly,
Secretary, Mining Bureau."

BRITISH TRADE FAIRS.

At the request of the Senior Trade Commissioner for the Imperial Department of Overseas Trade we have pleasure in giving publicity to the following circular announcing Trade Fairs in London, Birmingham and Glasgow, which would appear to offer good opportunities to Canadian manufacturers to advertise their wares in the United Kingdom.

The Senior British Trade Commissioner in Canada and Newfoundland, (Mr. G. T. Milne) is informed by the Imperial Department of Overseas Trade that Fairs representative of various branches of British industry will be held concurrently in London, Birmingham and Glasgow early next year. The London Fair will be organized by the Imperial Board of Trade, and the Fairs at Birmingham and Glasgow by the Municipal Corporations and Chambers of Commerce of these cities, but under the auspices of the Board of Trade.

These Fairs which have been held annually since 1915 were somewhat limited in scope during the war period owing to the restrictions which had to be imposed in the interests of munition manufacture. The future Fairs will, however, be on a scale commensurate with the magnitude of British industry.

For the purposes of the London Fair the Crystal Palace, which is the largest Exhibition Building in the world, has been secured. On the ground floor alone there are 14 acres of floor space. This Fair will embrace a wide variety of products, including cutlery, silver and electro-plate, jewellery, paper and stationery, fancy goods, brushware, drugs and druggists' sundries, musical instruments, scientific instruments, toys and sport goods.

The Birmingham Fair will include general and domestic hardware, tools and small machine tools, lighting fittings for electricity, gas, oil, etc.; India rubber goods, machinery belting of all kinds, motor cycles and cycles; accessories for motor cars, cycles and aeroplanes; sanitary appliances and a number of other items utilized in industrial and domestic construction.

The Glasgow Fair will embrace textiles of all descriptions, both in the piece and made up, boots, shoes and gloves, foodstuffs and beverages, and light and heavy chemicals.

The British Industries Fairs are not exhibitions—they are Trade Fairs to which admittance is restricted to "bona fide" trade buyers seriously interested, and admission is by invitation only.

Participation in the Fairs is confined to British manufacturing firms, which shall be deemed in this instance to be firms whose principal works and Head Offices are situated within the British Empire, and which are not controlled by Foreign interests. Exhibitors are not permitted to exhibit goods other than those they actually manufacture. From the foregoing it will be noted that Canadian manufacturers are eligible as exhibitors.

Full particulars may be obtained at the office of the Senior Trade Commissioner, 367 Beaver Hall Square, Montreal, and applications by Canadian manufacturers for space will be received by the Senior Commissioner up till 31st August next.

Education has been mentioned as a cause for discontent. This is to be regarded as a sign of progress. Insofar as discontent is the result of intelligent observation it is a virtue. We hope that there will always be much discontent of this kind in Canada.

Occurrence of Elaterite, or Elastic Bitumen, in a Fluorite Vein at Madoc, Ontario.

By CYRIL W. KNIGHT.

The attention of the Ontario Bureau of Mines having been called to the occurrence of a peculiar bituminous substance in the fluorite vein of the Canadian Industrial Minerals, Limited, at Madoc, Hastings County, Ontario, the writer spent a short time in the early part of May, 1919, examining the deposit. Mr. R. C. Bryden, manager of the company, very kindly took the writer through the mine, and pointed out the location of the material. Specimens were collected and forwarded to Ledoux and Company of New York, and the material was determined to be "elastic bitumen," or "elaterite." Elaterite has not previously been found in the Province of Ontario, and its occurrence is not mentioned in Johnston's "List of Canadian Mineral Occurrences" published by the Geological Survey of Canada.

The fluorite veins at Madoc have been known for many years. They contain, in addition to fluorite, the minerals barite and calcite. It was only during the Great War that they were worked to any large extent. Mr. T. F. Sutherland describes sixteen properties around Madoc in which fluorite is found.† The deposits are also described in this Journal for June 15th, 1918, and in the Twenty-Second Report of the Ontario Bureau of Mines, Part II.

The veins intersect granites, schists, crystalline limestones and other rocks of pre-Cambrian age, and also fossiliferous limestones of Black River (Paleozoic) age. The deposit owned by the Canadian Industrial Minerals, Limited, occurs in a red and grey granite and has been worked to a depth of 200 feet. The elaterite was found on the 200-foot level, and was seen at the time of examination to occur sparingly—less than half a pound altogether—for several feet along the vein where the latter is two or three feet wide. It is not found in economic quantities. It has a dark brown color and occurs in vugs in the vein material. In the specimens collected these vugs are from a fraction of an inch to one or two inches in length and fractions of an inch in width. It was reported by Mr. Bryden that larger masses of the material had been found.

The description of the identification of elaterite by Ledoux and Company is given below:

"After superficial examination of the sample of bituminous substance associated with fluorite, barite, calcite minerals referred to in your favor of May 10th, 1919, especially with regard to the manner in which it melts and burns and the action of organic solvents upon it, we have little hesitation in expressing the opinion that it is elaterite, known also as mineral caoutchouc or elastic bitumen.

"Elaterite and similar bitumens are subject to change in composition due, in part, to more or less oxidation. There are a number of closely related compounds which have been given different names by

different observers. The original mineral appears to be an unoxxygenated hydrocarbon containing 86 per cent. of carbon and 13 to 14 hydrogen.

"The only way to positively identify the compound would be by ultimate analysis, but the sample submitted is insufficient for this purpose; at least, it is impossible to separate enough of the hydrocarbon perfectly free from the associated inorganic minerals to obtain an accurate analysis. We do not believe it is necessary to go to the considerable expense of ultimate analysis for the purpose of classification, since, if the mineral is not elaterite, it is at least something very close to it, and, furthermore, such authorities as there are on these minerals differ as to the composition.

"We would also call your attention to the fact that the bitumen in the sample is not uniform, part of it being more or less sticky and fluid, while the rest is of the consistency of crude rubber. This variation in consistency (and also in composition) is noted in Dana's Mineralogy."

It may be added that Mr. R. C. Bryden told the writer that he considered the material to be elaterite. This was before the sample was forwarded by the Ontario Bureau of Mines to Ledoux and Company for definite identification.

The origin of the elaterite in the fluorite vein is obscure. It may have been deposited at the same time as the fluorite, calcite and barite which now compose the deposit. If this is true, then possibly the elaterite may have had a volcanic origin, since fluorite is often considered to have been deposited from gases and vapours given off by igneous rocks. There are, however, no known igneous rocks cutting the Paleozoic beds between Madoc and Lake Ontario.

Another suggestion as to the origin of the elaterite is that the material descended into the vein from pools of oil which might have been present at some time prior to erosion in the overlying beds of Paleozoic limestones.

Whatever may be the origin of the material it is interesting to speculate as to the possible occurrence of a large vein of the material in the Madoc area, hidden somewhere in a valley or other depression. South-eastern Ontario has produced an amazing variety of minerals, some of them in paying quantities, such as talc, fluorspar, feldspar, graphite, mica, iron pyrites and other minerals. Perhaps the region has in store another surprise in the form of workable deposits of elaterite, or some other closely related hydrocarbon.

It is worth while recalling in this connection the deposit of the hydrocarbon known as albertite, which was found in New Brunswick many years ago. The occurrence is described by Frederick G. Clapp in a publication (No. 291, Vol. 2, page 59) of the Department of Mines, Ottawa, as follows:

"In 1849 Dr. A. Gesner discovered on Frederick brook near the present site of the Albert mines, a vein or bed of a bright, jet-black, shiny mineral, after-

*Published by permission of Thos. W. Gibson, Deputy Minister of Mines for Ontario.

†Ont. Bur. Mines, Vol. 27, 1918, pp. 136-138.

wards identified as mineral pitch or bitumen, and called albertite. This mineral proved on investigation to be of great value and was mined for nearly thirty years at great profit. The records of production were destroyed, but it was known that in each of the years 1865 and 1866 the output of albertite was 20,500 tons, while the total from 1863 to 1874 amounted to 154,800 tons, and during the entire period of working it was probably not far from 230,000 tons. The price ranged from \$15 to \$20 per ton.

"Albertite is a solid bitumen representing the residuum of petroliferous seepages. It occurs in veins in the Albert shales at several points in Albert and Westmorland counties. While in itself an indication of petroleum in past times rather than at present, it is generally associated with petroliferous shales, and in the Albert mine liquid petroleum was actually collected in buckets from seepages from sandy beds included in the shales associated with the albertite. Albertite is not a coal, notwithstanding the opinions of certain interested parties or legal decisions, but is a petroliferous residuum and therefore to be classed among the indications of oil, at least to the extent indicated above."

BRIDGE RIVER LILLOOET DISTRICT.

A party of geologists, from the Federal Government, in charge of Capt. W. S. McCann, who has seen service at the front, is making a survey of the geological formation along the Bridge River between Rexamount and Gull Lake in the Lillooet District.

This is the completion of the work, left unfinished by Mr. C. W. Drysdale, who was drowned in 1917. At the time of the drowning Mr. Drysdale's entire manuscript was lost. This necessitated the work being done all over. It is expected this will be finished this year.

THE SHORTER DAY.

Trouble has developed through the enforcement of the Provincial Eight Hour Act, which gives the eight hour working day to all workers in and around a coal mine. The underground workers had the Eight Hour Day. This legislation extends it to those employed on the surface. In the application of the measure, however, W. H. Armstrong, director of Coal Operations in District 18 (Eastern B. C. and the Province of Alberta), has issued an order permitting a reduction in wages proportionate to the time employed. Thus, in Eastern British Columbia, which embraces the Crow's Nest Pass Collieries, the men, while getting a shorter day by an hour, may expect a reduction in their pay. As a result orders recently came to the unions of Fernie and Michel from the Calgary, Alberta, headquarters of the U. M. W. of A. to take a ballot of the men to ascertain their feeling as to the declaration of a strike for the purpose of registering their resentment of the Armstrong dictum and, of course, to force the company to pay the same scale for nine as for eight hours. This was done and shows that the majority are in favor of the extreme step should it become necessary.

Further advices received to-day from Fernie make slight change necessary in my notes re enforcement of Eight Hour Day Law and its result, namely, the taking of a strike vote in District 18, the outcome being that the majority appear to be in favor of that course of action. It seems that the surface workmen in and about the Crowsnest Pass Coal Mines have been, generally, conceded nine hours pay for eight hours work, that is their wages will not be affected by the

change in hours called for by statute. Some, however, notably the fanmen at Coal Creek, have been working ten and eleven hours a day. In cutting their working day to eight hours it is proposed that their pay shall be based on the nine hour rate, in other words, if they worked ten hours, one hour's pay will be taken from their wages. It is on behalf of men so placed that the strike is proposed and not, as suggested in my memorandum of yesterday, for the maintenance of the claim of all surface workers for nine hours pay for eight hours work. No definite action has yet been ordered from the U. M. W. of A. headquarters at Calgary and in the meantime W. H. Armstrong, the director of coal operations, is at Fernie conferring with the men and the operators with a view to the reaching of an understanding that will avoid the tying up of the coal mining industry of eastern British Columbia and Alberta.

WASAPIKA.

There is considerable interest now in the West Shining Tree gold area. It seems likely that the area will at last receive the attention it deserves. The good judgment and persistence of Mr. George Rogers, who has been responsible for most of the development work done in recent years, seems very likely to result in the adding of at least one mine to Ontario's gold producers. Mr. Rogers has been quietly plodding along and we are glad to learn that he is meeting with considerable success. If the Wasapika proves to be as good as it looks it will be a real mine.

Some good should come out of all the discussions that are now going on in the industrial world. It is reasonable to hope for a better understanding between employer and employee in the future. There is naturally a feeling of pessimism over the present situation; but after both sides have been presented and the differences adjusted Canada will undoubtedly begin a new era of industrial prosperity.

It has been brought forward as a cause for discontent that certain companies have published reports showing that they made very large profits. It is well to bear in mind, however, that it is customary to give much more publicity to successful ventures than to unsuccessful ones. Comparatively few men care to advertise their losses.

Molly Gibson.

The Molly Gibson, one of the properties of the Canadian Consolidated Mining & Smelting Company, situated near Kitto Landing on Kootenay Lake, which has been idle for some months, is once more shipping ore. The tram line, which was damaged by snow-slides, has been repaired.

Pumping Out Suquash Mine.

The pumping of the water from the workings of the Suquash Mine of the Pacific Coast Collieries, which is situated some distance north of Nanaimo, B.C., on the east coast of Vancouver Island, is being undertaken. This mine was closed when the war broke out in 1914 and since has been practically deserted. It is understood to be the company's intention to put the mine on a producing basis at the earliest possible moment. The Suquash coal is of good quality and with adequate transportation facilities should be assured a ready market.

-:- Peace River Oil -:-

By J. J. RUTLEDGE.

This is the fourth successive year of drilling for crude oil in Peace River, Alberta, and the deepest depth attained to date is 1,155 feet. During the four years referred to six wells have been put down with not a dry hole in the lot. In more than one well the oil rose of its own pressure to a height of 425 feet in the well. One well is estimated by the driller at over 100 bbls. daily capacity.

These six wells cover a distance of about fifteen miles in a straight line from north to south and along the banks of the Peace River.

In the spring of 1916 the first well was drilled to a depth of 1,135 feet. At 930 ft. the oil producing sands were encountered, showing 70 feet of productive oil sands. At the depth of 1,100 feet salt water was struck which stopped further drilling on that well beyond the 1,135 ft. level.

The spring of the following year (being 1917) the second well was drilled, and on the 11th day of October the oil sands were reached at the 962 ft. level (this well being at a point one and a half miles south of well No. 1.)

When the drill had entered the oil sands to a depth of 17 feet in the sands, the oil rose on the first day to a height of 40 feet in well. The second day oil rose to a height of 90 feet in the well, and the driller gave it as his opinion, considering the rapidity with which the oil entered the well, that the well would bale 50 bbls. or pump 100 bbls. each 24 hours. Drilling was continued on down in the oil producing sands of this same well, No. 2, till the depth of 1,032 feet was reached, thereby making in all 70 feet of continuous oil producing sands. The oil here rose to a height of 425 feet in the well. With the above estimate of the driller to go from as a guide one may estimate the probable production with the oil at the 425 ft. level in the well. The 100 bbl. estimate taken from driller's statement of oil at time of being 90 feet in well on 13th day of October, 1917.

Not satisfied with this remarkable showing of oil at so shallow a depth, the company, or some other person or persons, in authority, decided to go on further down with the drill in order to reach what is persistently believed will be found the Great Sea of Oil below, and at the 1,085 ft. level entered salt water which continued on down to the 1,125 ft. level. Here the casing was set in eight feet of solid sandstone and water was shut off successfully. It being now well on into cold weather, December, work was stopped for the short winter spell. During this interim the salt water broke the casing at the collar and let water into the well. The weather being cold it was impossible to shut it off. The next best thing to do was to move location again during winter, and the outfit was moved to a point six miles further south and still on the bank of the Peace River. Work was started during the summer of 1918 on well Number 3, with the result that at about same depth, 962 ft., the oil has been encountered, and it is hoped that better luck will follow this well than that which overtook the first two wells.

Across the river a well was put down last year. On approach of winter the oil was struck at 962 ft. and with the drill into oil sands for 30 feet the oil rose about 200 ft. when work was discontinued for winter. It is hoped that when the bottom of the oil sands is reached that a pump will be placed on the well and actual production capacity ascertained.

One mile south of this last mentioned well another plant has been installed. The drills are down some 200 ft. This summer good results are looked for here.

Two miles further south and on the same side of river bank a rig was working. At closing time for winter season last fall approximately 900 feet had been drilled.

On the opposite bank and on the east side of the river is another well down 1,155 feet and into oil. The operators have not yet commenced work this spring. Six miles south of well No. 3 mentioned above, and at the townsite of Peace River, is the well of the Consolidated Oil Company, a corporation capitalized for \$2,500,000. This well is now down to the 1,139 foot level, with the drill into two feet of oil producing sands. From reports, which can be verified, it would appear as though this prospect promises to be as good as the best well above described.

On the opposite bank of the Peace River from the townsite, another company with an up to date rig of the Standard pattern is operating. This company is now hard at work drilling and the well is down about 300 feet. From indications of the formation passed through, and comparison with all the other wells, the wise men in the geological line assert that there can be no doubt but that good results will follow from this drilling also. So we have in all six wells to date that have pierced the genuine oil producing formation. It only requires now that pumps be placed on the property to determine the actual producing capacity.

It may be well to here call the attention of the reader to the fact that we have now a prospected field of some twenty miles in extent, with more than promising results and yet there is not the slightest evidence of what may be termed "An oil boom." What we have been anxious for is however happening in this field; an increase in drilling activity which will demonstrate to the world the existence of an old field here in Peace River. We do not desire a premature oil rush such as has taken place in very many portions of the globe. When we ship out by rail one car or a train load of the precious fluid, or "Liquid Gold" those living at a distance will soon learn of the Peace River Oil Field in Alberta.

Another item of great importance regarding this oil is the fact that by the cracking process it contains fifteen per cent. gasoline; fifty per cent. kerosene; thirty per cent. lubricating oil, and one five per cent. residuum, in the form of asphalt, this oil being of an asphaltic base. This we consider quite good enough. The oil is Sixteen Baume.

For the benefit of those interested in the production of oil in any country where transportation is as

good as it is here, this field being on a branch line of the standard gauge which connects with all trans-continental lines at Edmonton only 300 miles distant, it might be well to say: For the amount of territory covered to date and the shallow depth, approximately one thousand feet, and with a showing of over four hundred feet of oil in well from a uniform depth of seventy feet of oil producing sands, we are inclined to doubt if this condition for the amount of prospecting can be duplicated on this continent, and the end is not yet.

Another attractive feature exists here in this Great Dominion of Canada, and it is also mighty important to the investor, and it is this: The Dominion Government has a system of leasing in vogue which entitles the lessee of oil and gas leases from the Government to a lease of twenty-one years—with right of renewal of twenty-one years more, at the rate of fifty cents per acre per annum (with the proviso that a drilling plant be installed and in operation within the first eighteen months of the lease) it being the evident intention of the Government to encourage oil production, and more than that, the Government gives a bonus of fifty cents per bbl. on each and every barrel of oil so produced in the Dominion.

These conditions are generous. It is not going too far to say that an equal amount of liberality does not exist on the face of this globe in respect of the laws governing the securing of oil and gas leases from the Government of any country.

There is to date some three hundred thousand acres thus leased by our local people here, and it is not a difficult matter for any one who would desire to drill for oil to obtain a choice location under existing lease in good standing from the Government, upon very liberal terms as to a division of the oil without the payment of any cash down.

Of course, as soon as any one of these wells is placed on the pump and a certified statement of the actual production takes place, it is not out of reason to suppose that these leases referred to will be very much more in demand and as a result much more valuable than they would appear to the outsider to be to-day.

In conclusion, I wish to state that what is herein contained with regard to development and the field in general, can be taken as the actual fact, as I have been an actual resident on the ground from the first day of drilling here. I have the refined product, and a signed verification of the above facts by the drillers on the ground, together with the log and core of drillings. Experienced drillers make the statement that it is ideal drilling for a rotary, in which case a well should be put down in thirty days from commencement of drilling operations.

COAL LANDS CASE GOES TO PRIVY COUNCIL.

Two important actions, both involving title to the disputed coal rights of the Esquimault and Nanaimo Railway Belt, Vancouver Island, B.C., will come before the Privy Council in England this summer. Hon. J. W. deB. Farris, Attorney General of the Province, leaves shortly to appear before that court on behalf of the Province. One of these cases is that between the E. & N. Ry. Co. and H. W. Treat, the latter being a resident of Seattle, Wn. A lease was given the latter by the Provincial Government to certain foreshore on the east coast of Vancouver Island and to this the

company, by virtue of the terms of the grant it received in the year 1884, claims the ownership. It may be stated that Mr. Treat proposes, if he is successful in his suit, developing the foreshore in question for its coal. From the Provincial standpoint its interest is to maintain the validity of its lease and to establish its authority to give such title. If the effect fails it follows that the company will have possession of all the foreshore on the east coast of the Island from Esquimault to Nanaimo, a distance practically as the crow flies of 80 miles and of indeterminate extent if the indulgences of the shore line be followed. Then there are two cases of a similar character, namely, Esquimault and Nanaimo Ry. Co. vs. Dunlap and Esquimault and Nanaimo Ry. Co. vs. Wilson and McKenzie (Ganner Estate). In these Crown Grants to coal rights within the Railway Belt were issued to the defendants by the Provincial Government in accordance with the terms of the Settlers Rights Act, 1917. These Grants were issued by the Province during the interval elapsing between the passage of the Act by the Provincial Legislature and its disallowance almost a year later by the Dominion. The position taken by the company is that the Grants were vetoed automatically with the disallowance. If this is not controverted it is likely to have a serious effect on one large and important island enterprise of recent date, namely, that of the Granby Consolidated Mining & Smelting Company at Cassidy's Landing, to which some reference has been made in these columns. The Granby company holds its coal lands and, if the provincial title which it holds is found invalid, it may be in a serious predicament, as development has proceeded to the point that there is now a producing mine provided with modern plant and equipment. Besides coke ovens, which are understood to depend for their supply on the Cassidy Colliery, are nearly completed at Anyox, B.C., the site of the company's copper smeltery. For these reasons Mr. Farris's trip has a special interest to the coal mine operators of this Province.

Meanwhile the agitation among the settlers of the E. & N. Railway Belt, as a result of the disallowance of the Settlers' Rights Act passed at the last session of the Provincial Legislature by the Dominion Government, continues. A deputation of residents of the Newcastle District recently waited on Hon. John Oliver, Premier, and Hon. Wm. Sloan, Minister of Mines, to ask what action would be taken to secure them their coal rights in view of the course taken by the Dominion. It will be recalled that the Provincial legislation of 1917 was disallowed at Ottawa and that the Lieut.-Governor refused his assent to the re-enacted measure of 1918, this being done, it is assumed, on advice from the Capital. The delegation was informed that, in view of the attitude of the Federal authorities in 1917, and what has since transpired, there seemed little reason to believe that the 1918 legislation would be allowed, so that the chances of their having an opportunity to obtain title to their coal rights appeared to be slim. There are 180 settlers affected, at any rate that number of applications were under consideration at the time the Act was vetoed. These people propose now directing their representations to Ottawa and with that end in view a general meeting of protest is to be held at Nanaimo, B.C., shortly and it is considered likely that a delegation will be despatched to the Capital to present the settlers case, first hand, to members of the government.

HON. MR. SLOAN'S VISIT TO OTTAWA. \$100,000 For Ore Testing Plant.

That the Dominion Government is providing \$100,000 for the establishment of an ore testing plant in British Columbia and that legislation is promised by the Federal authorities confirming the Provincial Government's action in throwing open Indian reservations for mining are two important announcements made by Hon. Wm. Sloan on his return to Victoria from the Canadian Capital recently.

In discussing with Hon. Martin Burrell, Minister of Mines for Canada, the matter of ore testing, Mr. Sloan pointed out the advantage of having the same established in connection with the University of British Columbia at Vancouver, B.C., and also suggested that an expenditure of \$100,000 was scarcely adequate, it being probable that twice that amount would be necessary in order that the best results might be assured. Mr. Burrell, in reply, explained that a further grant could be made later if such was found to be the case and that in the meantime the \$100,000 would permit a start to be made. As to the site of the proposed mill that was a question which had not been decided and the Dominion Minister could not concur in the view that it should be made an adjunct of the Provincial University. Mr. Burrell did not deny that it would be, if so placed, of great value in the technical training of western students while, at the same time, serving its purpose to the mining operators and the mining industry generally. But he took the position that if a precedent of the kind were established the central government would be called on to provide similar equipment in connection with all Canadian seats of learning. Mr. Sloan is extremely gratified that the Dominion Government has decided upon the construction of the plant although disappointed on the minor issue of its being made a part of the University. He thinks that it will prove a practical benefit of the utmost importance to those engaged in the development of the complex ores of some sections of the province, affording them a means of obtaining advice, without the expense and inconvenience of shipping ore to Ottawa for test, as to the most economical equipment to install for the treatment of the ores with which they are engaged.

Will Open Indian Reserves to Prospector.

As to the matter of Indian Reserves, of which there are large areas in British Columbia, Mr. Sloan informed the Dominion authorities that the province by legislation had thrown these lands open to the prospector, both under the terms of the Mineral and the Placer Acts, but that these amending Acts were inoperative until proclaimed law by the Lieut.-Governor. The latter's proclamation would be published when the Dominion Parliament passed confirmatory legislation, it being recognized that the Canadian Government was the final authority by virtue of being the guardian of the Indians. Mr. Burrell appeared to see no reason why reservations should not be opened and the Indian Department saw the matter in the same light. It, therefore, is promised that the necessary Dominion Legislation will be introduced at the session now in progress, whereupon Mr. Sloan asserts no time will be lost in recommending that these lands, which in many instances are highly mineralized and offer promising fields to prospectors, be declared free to the miner.

In the same category, almost, is the Dominion Railway Belt, a tract of land extending twenty miles on

both sides of the C. P. R. in this province, and within the limits of which the control of minerals is divided between the Province and the Dominion. The precious metals are vested in the Province and the base in the Dominion. Mr. Sloan represented to the Federal authorities that the administration of these minerals should be in the Province, that until this was done their development would be retarded, and that the present unsatisfactory condition was stultifying the advancement of the mining industry. The Dominion Government, however, did not commit itself, taking the view that immediate action was not imperative and that this had best be left in abeyance until it was decided what course would be pursued in respect of the demand of the Prairie Provinces that large sections of their lands, now in the hands of the central government, be returned.

Another matter taken up at Ottawa by the Provincial Minister was the report that it was intended to remove the duty on fuel oil, to which proposal the coal operators of British Columbia have entered vigorous protest. They contend that the local market would be affected and that, as it is, the mines are not working to capacity. Mr. Sloan states that the viewpoint of the western producers was appreciated and that, in his opinion, the existing duty was not likely to be radically changed, if any amendment were made. The Dominion Government now controlled a large railway mileage in this Province and no doubt would use British Columbia coal, if for no other reason than to patronize home industry. The demand for the removal or reduction of the duty comes from the Prairie Provinces.

In regard to oil flotation Mr. Sloan was much interested in a demonstration of what is termed the alkaline process which he witnessed at Brooklyn. He says that, as far as he could judge, good results seemed to be obtained. While the oil flotation method in the treatment of British Columbia low grade ores had been a success the necessity of importing the oil needed made it somewhat expensive, and there now was an agitation among the companies using it for the reduction of the duty on this oil. If the alkaline process, therefore, proved in practical use to give the results claimed for it the industry might reap a very material benefit. On the probability of otherwise of such a development, however, he was not prepared to commit himself until more was known of the economical possibilities of the new process.

THE GOLD MINES.

In the gold camps of the north, particularly Porcupine, Kirkland Lake, and Boston Creek, the situation is gradually adjusting itself in favor of the gold mines, and all signs point toward the probability of the next few months and years being the most active and profitable ever experienced in the gold mining industry of Canada. In a number of instances the larger mines are adding to the scope of operations, while in numerous instances small mines are opening. In the case of the Hollinger Consolidated, work has assumed great magnitude.

Coke Ovens at Cole Creek Closed Down.

The coke ovens of the Crownscast Pass Coal Company at Coal Creek have been closed down. Those at Michel, B.C., an adjoining colliery town, are expected to be able to produce sufficient to meet the present requirements.

WORK FOR THE CANADIAN MINING INSTITUTE.

Under the heading "The Canadian Mining Institute as a 'Prospect' for Canada and Canadians," the following statement of the opportunity lying before the institute, has been made by Mr. J. P. Macgregor of Toronto.

The success of the several Victory Loan campaigns has two definite lessons for members of the Canadian Mining institute: 1. Public support is the most powerful instrument in a free democracy; 2. Even the most astute of financiers had not hitherto gauged the miracles that could be worked by whole-hearted public support of patriotic purposes.

The mining industry has not had its just or fair measure of public support; largely, it may be said, because many, if not most, of the capable men associated with it have not grasped the completeness of the prevailing ignorance of the extent and value of the industry. Probably not one average citizen in ten naturally classes the mining industry as on a par with agriculture or general manufacturing.

Of necessity the development of the mining industry is, and has been, a matter of growth. The original settler of this country found the soil fertile; and so agriculture developed, and, as tools, utensils, supplies, clothing, etc., were needed, manufacturing followed.

But with the civilization of United States to the south at least half a century in advance of us industrially and with these infant industries—agriculture and manufacturing—to fall back upon, the development of the mining industry in Canada was artificially retarded by the comparative elimination of the spur of necessity; also the prominence of the precious metals in the early stages of the mining industry of this country, and together with the inevitable speculative excitement served to fix the mining industry in the public mind as a series of alluring speculations rather than as a stabilized and permanent industry. Hence, it is especially necessary at this time, when the reconstruction of the industries of the country on a solid and substantial and permanent basis is being surveyed, that the Canadian mining institute should be organized:

(a) To press for and obtain assisting legislation whereby the safety of the capital secured for investment in the industry will be protected by all the inviolability of a British Crown grant;

(b) To seek and secure adequate support for technical education and training to prepare for solving the problems incident to the development of the vast mineral resources of this country.

(c) To provide all possible freedom of investigation and certainty of investment in legitimate enterprises incident to the industry, and to make it recognized that in a free democracy it is inherently necessary to maintain watch and ward and corrective power over the hasty and ill-considered legislation inimical to the sound, legitimate and permanent interests of the industry;

(d) By our own voluntary effort, to justify a liberal expenditure on the plans of the various departments of the government for the development of the mineral resources of the country, and of the industries founded thereon, and to urge with all our weight and influence, and by all possible co-operation with the organization of other industries, the further prosecution of this governmental work along further and more adequate lines.

At this time, when reconstruction problems press

upon us, when the mineral wealth of the country eagerly beckons us to its adequate development as the surest and quickest road to that permanent industrial success, proved to be possible by the results of the past four years of munitionment effort; at this time when American capital is eager for investment in Canadian standards of character, initiative and energy; at this time, when the combination of these two elements of Canadian industrial success waits on the direction and energy of the Canadian mining institute, it is essential; it is imperative; it is the patriotic duty of the hour for us to see that the Canadian mining institute rise to its opportunity and speak for the mining industry in this country as the Canadian Manufacturers' Association, and as the United Farmers are speaking for their respective industries.

Our first consideration and duty is to convince the public that mining is one of our principal industries, on a par with agriculture and manufacturing, in fact that these three great industries are the basic pillars of our national industrial development.

CASEY MOUNTAIN SYNDICATE, LTD.

A contract for 200 feet of cross-cutting has been let on the property of the Casey Mountain property in the township of Casey, the working having been started recently.

According to official advice, the main shaft has reached a depth of 425 feet. During the course of driving the shaft a layer of diabase 320 feet in thickness was cut, instead of 270 feet as previously reported. Underlying the diabase is a layer of conglomerate ranging from 110 to 125 feet in thickness. Keewatin formation underlies the conglomerate. It is now proposed to carry out extensive lateral operations in the conglomerate formation.

The shaft was put down part of the distance on a strong fissure, which dipped out of the shaft, and which will be opened up in the present cross-cut. It is learned officially that commercial silver values were encountered during the course of work in the overlying diabase, average values of about thirty ounces, or some \$30 to the ton being obtained at one point over a width of about ten feet.

The Casey-Mountain Mining Company, Ltd., with head office in Toronto, is the holding company, while the Casey-Mountain Syndicate, composed of interests in Regina, Sask., is the operating syndicate. Mr. R. G. Williamson is manager of the mine.

The mining plant on the property consists, in part, of a five-drill compressor, two boilers being 45 and 90 h.p. respectively, and a 6 x 8 hoist. The property consists of a group of claims comprising about 240 acres, and is situated about two miles from the rich Casey-Cobalt mine. A force of about ten men are engaged.

Not only is the geological structure at the Casey Mountain very similar to that found at the Casey mine, but is also very similar to that occurring in the most productive area of the Cobalt camp. Success would open a large prospective field, and one that should appeal to the larger mining companies, by reason of the fact that prospecting is made difficult owing to deep mining being necessary. It has often been said by leading mining engineers and geologists that the best place to look for new mines is in the neighborhood of proven mines. The Casey township area presents ample opportunity for putting the thought into actual practice.

INTERNATIONAL HIGH SPEED STEEL COMPANY EXTEND OPERATIONS.

To meet the requirements of their rapidly increasing business the International High Speed Steel Company have transferred their executive and main offices from 99 Nassau Street, New York City, to their works at Rockaway, N.J.

They have opened a branch office at Nos. 294-296 Lafayette Street, New York City, where they have secured a suitable and commodious warehouse.

The International High Speed Steel Company manufacture an extensive and varied stock of tool alloy and high speed steel, and also the celebrated "Bulldog" brand of Mining and Rock Drill Steel, both Hollow and Solid, in Hexagon, Octagon, Quarter Octagon, Round, and Cruciform Sections and in all sizes from $\frac{3}{4}$ in. to 2 in. diameter.

Mr. Wm. Garrow Fisher is president; Mr. Wm. T. Dunn, general manager, and Mr. John T. Mungovan, manager of the New York office.

They are represented in Eastern Canada by Mr. H. L. Osborne, Toronto, and in British Columbia by E. S. Prior & Company, Victoria, B.C.

SUNDAY STAKING IS LEGAL IN ONTARIO.

That a prospector may lawfully stake out a mining claim on Sunday, is the decision rendered by Mining Commissioner T. E. Godson, K.C., as is shown in a summary of Mr. Godson's decision, in the dispute of Knox versus Graham and Stevenson, printed in another column of the Journal. It is gratifying to note that Mr. Godson does not advocate nor does he encourage prospectors to stake mining claims on Sunday; but, that it is his opinion that where such is the case, the staking should not be made invalid owing to the operation of the Lord's Day Act.

"A prospector who separates himself from the comforts and the protection of society; blazes a trail to unknown mineral zones and discovers mineral of value is serving not only himself, but the public at large, and no unnecessary restraint should be placed upon his activities," says Mr. Godson. Further, "I can appreciate one such, who, from absence of contact for an extended period, being excusably forgetful of the day of the week. I can also understand the necessity for haste when the grub-stake is running low and the distance between the prospector and point of supply many miles away," says the Commissioner.

Mr. Godson also says: "I confess a desire to abstain from finding that to stake a mining claim on Sunday creates an invalidity through the operation of the Lord's Day Act and yet I wish to be understood that Sunday should be observed as a day of rest and calm when the mind can be disconnected from worldly tasks. Nature, however, has its own quietening influence and it provides "Books in the running brooks; sermons in stones; good in everything."

Points brought out by the Commissioner, are these: In computing the time within which work must be performed on a mining claim, neither Sundays nor public holidays are excluded by the Act. A Miner's License is in force for twelve months, and during the duration of the license the licensee is unrestricted as to day or time, etc. In the case under review, the former claim reverted to the Crown at the first moment following midnight on Saturday, hence when Knox staked the ground on Sunday he was acting lawfully, according to the Mines Act.

INDUSTRIAL RELATIONS COMMITTEE AT COBALT.

The Industrial Relations Committee has concluded its labors in Cobalt. Among the points brought out might be mentioned the fact that before the war, the minimum wages in the gold mines was about \$1.75 per day, as compared with a present wage of \$3.50 per eight-hour day as the lowest paid underground workers at present. The eight-hour day is being generally recognized. The average wage paid for eight hours work in the gold mines is well over \$4, while in the silver mines a like condition prevails. As an instance of this the Nipissing Mine may be cited, where, in the words of general manager R. B. Watson, the average paid to the employees of this, the largest silver mine in Canada, amounts to \$4.34 for eight hours work.

Mr. Watson declared that he did not think it necessary to have an industrial council in Cobalt. He pointed out that as matters now stand, the employees of the mine have a committee which meets the management at intervals. The members of the committee are elected by the employees themselves, by secret ballot, and the system has proved successful. The attitude of the mine managers is made clear, and is this: they express their willingness to meet and to deal with representatives of their own employees and do everything to promote harmony and fair treatment, but they are not prepared to deal with the union, because it has its administrative head in a foreign country, and that it does not fully represent the majority of the mine workers of the camp, but, rather, represents only union members.

Chief Justice Mathers, when asked for an expression of opinion with regards the situation in Cobalt as compared with other parts of the Dominion so far covered by the Commission, stated that unrest was less pronounced in Cobalt than in certain points visited in the West.

After hearing the evidence presented from all parts of the district, and from various points of view, the situation in the mining districts has the appearance of being fairly favorable, and leaves the impression, that, after all, the chief bone of contention is not a question of wages and not conditions in general, but is due to the refusal of the International Mine, Mill and Smelter Workers Unions for failure to gain recognition.

The Dolly Varden Mine.

The Dolly Varden Mine, one of the most promising silver properties of the Alice Arm District, Northern British Columbia, is expected to be taken over by the Taylor Engineering Company. This concern constructed a railway from the Coast to the mine, which incidentally taps a number of other good prospects. The Dolly Varden Company failed to pay the Engineering Company all that was claimed for this work and, by virtue of legislation passed at the last session of the Provincial Legislature, the first mentioned company and the Temiskaming Mining Company, were given until May 19th to take care of claims amounting to \$462,500. This they have not done apparently and the Taylor Engineering Company, therefore, has the power to take possession, its first responsibility on doing so being the discharge of wages due workmen amounting to about \$150,000. This done the same concern has authority to proceed with the operation of the mine.

Special Correspondence

BRITISH COLUMBIA.

The Canadian Mining Journal issue of April 16, report of the Mining Committee of the B. C. Legislature regarding the Dolly Varden case was printed in full. In that report the Mining Committee decided that the Taylor Engineering Company, which met financial disaster in the construction of a railway from the Coast to Alice Arm, B.C., was entitled to payment in full of the cost of work done plus 10 per cent. contractor's profit. The committee took this position in order to protect the contracting company and its creditors before the Provincial Legislature should consent to the renewal of the railroad charter.

Under Bill 103 the Dolly Varden Company had until May 17th to pay wages and until May 22 to pay the balance of the claim. At this writing (May 20) the wages had not been paid and there were only two days more in which to pay the balance of the claim. If the balance is not paid on May 22, the Taylor Engineering Company are going to exercise the privileges conferred by Bill 103, and will then operate the property in accordance with the terms of the Bill.

The amount of the claim is \$462,500. Mr. A. J. Taylor, of the Taylor Engineering Company states that his company is not in any way affiliated with any existing mining company and considers the property worth very much in excess of the charges against it. It is a high grade silver property on which over \$1,300,000 has been actually expended up to the present time. The railway is fully equipped and the mine in full development with 2,000 ft. of tunnels.

Eastern B. C. Branch of Mining Institute.

Advantage is to be taken of the International Mining Convention to be held next month at Nelson, B.C., to launch an Eastern British Columbia branch of the Canadian Mining Institute. It also is stated that there will be a meeting of a joint committee to formulate a system whereby better co-operation will be established between the American Institute of Mining and Metallurgical Engineers and the Canadian Mining Institute. L. K. Armstrong, secretary of the A. I. M. & M. E. in a letter to F. A. Starkey, who is in general charge of the convention arrangements, states that E. P. Mathewson, New York, chairman of the A. I. M. & M. E., A. R. Ledoux, the member of the Canadian Committee, D. H. McDougall, Nova Scotia, and L. K. Armstrong, Spokane, along with W. G. Miller, Toronto, and R. H. Stewart, Vancouver, probably will be in attendance. Besides S. A. Easton, Kellogg, Idaho; P. N. Moore, past president of the A. I. M. E., St. Louis; J. H. Haas, chairman of the Columbia section A. I. M. E., and the president and secretary of the Associated Engineers, Spokane, Wn., are expected to be among the visitors. S. S. Fowler, Riondel, B.C., a member of the executive of the A. I. M. & M. E., is expected to advise the convention management as to the part of the technical portion of the programme the A. I. M. & M. E. will undertake.

To Conserve Gold Supply.

An extension of the existing Dominion prohibition upon the export of gold bullion, so as to include complex ore carrying gold, will be urged upon the Canadian Minister of Finance by the Vancouver (B. C.) Board of Trade. In discussing this matter one of the Board's members, Nicol Thompson, stated that the present legislation was designed to stabilize the country's credit and he thought the proposal was of the utmost importance, if results were to be assured. The greater proportion of the gold production of the Province was from complex ores and much of it was smelted at Tacoma, Wn., and other points outside British Columbia. It is proposed, as an alternative to the total prohibition of exportation that the Government make it obligatory that an amount of gold equivalent to the amount recovered outside the Province from provincial ores be returned to the exporting company. Such a policy, it was stated, besides making more effective the policy of increasing the country's gold reserve, might lead to the refining of all metallic ores in Canada.

B. C. Coal Output.

Coal output returns for the month of April are to hand and show that the total production of the collieries of British Columbia for that period was 197,180 tons. This is made up as follows:

Company.	Location.	Coal Ton- nage.	Coke Ton- nage.
Crow's Nest Pass Coal Co.....	Coal Creek	26,788	337
Crow's Nest Pass Coal Co.....	Michel	14,798	3775
Corbin Coal & Coke Co.....	Corbin	5,315	.....
Merritt Collieries, Ltd.	Merritt	3,300	.....
Fleming Coal Co.....	Merritt	2,604	.....
Princeton Coal & Land Co.....	Princeton	841	.....
Canadian Western Fuel Co.....	Nanaimo	54,825	.....
Canadian Collieries, (D), Ltd.....	Cumberland	51,037	.....
"	Extension	19,326	.....
"	South Wel'ton	6,574	.....
Pacific Coast Coal Mines.....	South Wel'ton	6,822	.....
B. C. Coal Mines, Ltd.	South Wel'ton	2,011	.....
Nanoose Collieries Co.	Nanoose	135	.....
Granby Consolidated Mining & Smelting Co.....	Cassidy's	2,804	.....
		197,180	4112

Multiplex Mining Co.

The Eloye Mining Company, situated at Camborne, B.C., Lardeau District, has been bonded to the Multiplex Mining Company, the consideration being \$30,000, according to the statement issued. The property has been in process of development by the owners, John Kennedy and Roderick McLennan, for some years and a vein of ore carrying silver-lead, with high values in

Obituary.*John Bates.*

One of British Columbia's pioneer mining men died recently in the person of John Bates, who was well-known among prospectors and operators of the Kootenay and Boundary districts of this Province as well as in Alaska. On leaving the American Army, Mr. Bates migrated to Nelson, B.C., which he made headquarters while prospecting the adjacent country. Subsequently he journeyed to Alaska and the Yukon among the placer grounds, of which he roamed for several years. He then returned to the interior of British Columbia, where he has since lived. He was about 70 years of age, and a native of Ireland.

Silver Standard.

With the mine again on a shipping basis and the plant in operation, the Silver Standard property, Glen Mountain, Omineca, is expected to be active. Work was resumed on the 1st of May. This is one of the largest producers of silver, lead, and zinc of northern British Columbia, and is gratifying to know that arrangements as to freight rates, treatment of concentrates at the smelter, etc., have been satisfactorily concluded, and that there is every prospect of clear sailing for the management. W. G. Norrie-Loewenthal, the manager of the mine, who, of course, has returned to his duties, had a conference with General Stewart, D. McLeod, and Angus Stewart, some of the chief owners, while on the coast and states that they have every confidence in the future of the property and of the district, it being their opinion that other producing properties would be developed in the vicinity.

The O. B. U.

The "One Big Union" is much to the fore in the Canadian West. The idea of such an organization started with the Calgary Convention of the Federation of Labor and since has been discussed by practically every union in the West and, if reports are to be credited, has been generally endorsed, so that nothing remains but to give it effect. Among the leaders in the Crownsnest Pass Coal District it is, of course, the leading subject of discussion. Recently John Potter, of Fernie, and a member of one of the Locals, District 18, U.M.W. of A. addressed a meeting at Trail, B.C., held under the auspices of Trail Union No. 105, International Mine, Mill and Smelter Works, his theme being the One Big Union. He was on a mission, it was explained, to obtain members for the O. B. U. one of the primary objects of which was to secure a six-hour working day and a wage of \$1 per hour. He deprecated the action of the Calgary Convention in expressing sympathy by resolution with the Bolshevik doctrines, but asserted that the workingmen should get what they want by a nation-wide strike through the O. B. U.

Silver Standard.

The Silver Standard Mine is in full operation again. Ore is being taken out and development is being pushed. The Mill is handling the ore satisfactorily and a carload of zinc concentrates is ready for shipment. Lead concentrates are to be sent to Selby Smelter, San Francisco, Cal., instead of to Trail, B.C. The explanation given of this change is that the American smelter handles a lower grade of concentrates.

Federal Support for Technical Education.

Federal support for technical education aggregating ten million dollars within the next ten years, the money to be paid to the provinces is provided for in the following resolution of which notice has been given by Hon. J. A. Calder, minister of immigration and colonization: Resolved that it is expedient:

(1) To bring in a measure for the promotion of technical education in Canada.

(2) That for the purpose of promoting and assisting technical education in Canada, the following sums, aggregating ten million dollars, shall be appropriated and made available for payment out of the consolidated revenue fund of Canada, during each fiscal year for the period of ten years, beginning with the year ending the 31st day of March, 1920, namely: (a) During the fiscal year ending March 31, 1920, the sum of \$700,000; (b) During the fiscal year ending March 31, 1921, the sum of \$8,000,000; (c) During the fiscal year ending March 31, 1922, the sum of \$900,000; (d) During the fiscal year ending March 31, 1923, the sum of \$1,000,000; (e) During the fiscal year ending March 31, 1924, the sum of \$1,100,000 and the like sum of \$1,100,000 during each of the succeeding fiscal years until the expiration of the fiscal year ending March 31, 1929.

Such sums subject to the conditions of the proposed legislation shall be allotted and shall be paid quarterly as grants to the governments of the several provinces in proportion to the population of the said provinces respectively, as determined by the last federal census.

(3) That the grant payable to any province in any year shall not exceed the amount provided for each province by the foregoing resolutions, nor shall it exceed an amount equivalent to that which the provincial government shall expend on technical education within such year.

(4) That in determining the grant payable to any province annually no account shall be taken of any liability of expenditure incurred by the province for the acquiring of lands, the erection or improvement of any buildings, or the supplying of furnishings or equipment for any technical education institution established in the province prior to the first day of April, 1919. Then follow the terms and conditions under which the grants shall be made.

Changes in Alberta Mines Act.

Some minor changes were made in the Mines Act of the Province of Alberta at the session which came to a close a short time ago. One amendment provides that the provisions of Section 29 of the Act shall not apply to mines where coal is extracted by the process of removing all the overlying strata. Section 29 deals with the control and supervision of a mine, making it obligatory that its operations shall be under the "control and supervision" of a certified manager and laying down rules and regulations the object of which are to enforce the keeping of underground workings in such condition as will assure their being safe to workmen. Another alteration provides for the semi-monthly payment of wages in coal mines as follows: "Wages earned from the 1st to the 15th day of each month shall be paid on the first Saturday after the 26th day of the same month, and all wages earned from the sixteenth day to the end of the month shall be paid on the first Saturday after the 12th day of the following month; provided that if any of the said Saturdays is

a holiday the wages shall be paid on the Friday before." The power given an employer to retain moneys due for doctor's fee has been repealed. Safety lamps shall be inspected by a person holding a first, second or third class certificate. The two persons appointed by workmen to inspect a mine shall be practical miners.

Granby Wage Increases.

Another advance in the wages of employees of the Granby Consolidated Mining & Smelting Company was announced recently at its smelting centre, Anyox. It amounts to 50 cents a day to miners and 25 cents a day to smeltermen and others, approximately 1,200 men being affected. This is in addition to a 25 cent raise a day for every 2 cents increase in the selling price of copper. Wages have been increased about \$1 a day since April 1, when the plant was reopened after being suspended for some thirty days.

Paradise Mine.

A promising body of ore has been developed at the Paradise Mine, on Toby Creek, near Windermere, B.C. During 1917 over 2,000 tons of ore was shipped from this property to the Trail Smeltery, the nature of the ore being a lead carbonate with an approximate content of 30 oz. in silver to the ton and 30 per cent. lead. It is expected that the Paradise will be a steady producer during the present season.

Drilling Placer Ground.

A Keystone drilling machine is to be used in testing certain placer leases situated on Swift River, of the Cariboo District. The work is being undertaken by C. W. Moore, of the Waverly Mining Company. In the early mining days the Chinese sluiced over acres of the territory in question, taking out large amounts of gold. With the crude appliances in use then, however, the surface of the ground only was worked and the promoters of this enterprise are hopeful that the drill will reveal profitable ground at bedrock.

Manganese.

With further reference to the manganese claims situated in the Cowichan District, it is announced that the Tacoma Smeltery of the Burrows Alloys Co. has contracted to take twenty tons of the ore as soon as it can be got out. The ore will be supplied as soon as the road now under construction is completed. If there is a market for manganese at all C. H. Dickie and his associates are confident that the Vancouver Island ore will find a ready sale owing to its exceptional quality.

Fire at "Old Sport" Mine.

Fire broke out at the "Old Sport" Mine, Quatsino Sound, recently and destroyed the compressor house, besides rendering useless the electric light dynamo, the air compressor, and some \$5,000 worth of miscellaneous tools and apparatus. The camp, which has been maintained by the Coast Copper Company on behalf of the Consolidated Mining & Smelting Co., has been closed down. It is understood, however, that the plant will be replaced as soon as possible and in the meantime the diamond drilling is to be continued. The "Old Sport" property is considered to be a large copper producing proposition in the making and on the proving of sufficient ore a concentrator is to be installed

and a railway built from the mine to the beach. Up to the present the development consists of an adit which crosscuts the ore at a distance of about 400 feet from the surface, a drift along the ore body in each direction for 300 feet, a winze following the dip of the ore for 525 feet, and a drift in each direction at this level for about 300 feet. Besides there has been a great deal of surface work done and considerable drilling.

Dolly Varden.

According to authoritative information, representatives of the Dolly Varden Mining company, whose property is situated in the Alice Arm District, intends to appeal to the Dominion Government for the disallowance of the Provincial Legislation which gives the Taylor Engineering Co. power to take over the mine and other of the company's holdings in order to satisfy claims it has presented in respect of the construction of a line of railway from Alice Arm to the mine. It already has been reported that the time given the Dolly Varden Company to meet the financial terms laid down by the Legislature has lapsed and that the Taylor Engineering Company is proceeding to take possession.

District 18 Miners Strike.

The coal miners of District 18 (Eastern B. C. and the Province of Alberta) will strike on Saturday, May 24th, as a result of a disagreement which has arisen in the Crowsnest Pass Section of British Columbia over the pay of some employees who are affected by the Eight Hour Day law. There are about 6,000 men affected by this walk-out, of which number 1,600 are resident in the Crowsnest Pass, and the trouble centres in the wages of some 12 men. The company has conceded that the bulk of the surface workers whose day previously consisted of nine hours shall have the same pay for eight hours, but it refuses the same concession to fan men and others who have been working ten, and eleven hours a day. The Unions have had the matter under consideration for several weeks and, by an overwhelming majority, voted in favor of striking to uphold the claims of the workers instanced for the same daily rate of pay under the Eight Hour Day Act as has been received heretofore. Not only the miners, but all surface workers, including the engineers, have been called out so that the situation to the collieries throughout District 18 threatens to be serious unless some compromise can be reached without much delay. W. H. Armstrong, Director of Coal Mining Operations, is endeavoring to bring about a settlement and it is hoped that his efforts will be successful.

The British Columbia Federation of Labor recently telegraphed the Ottawa Government as follows:

Hon. G. D. Robertson, Minister of Labor, Ottawa:

"Executive of British Columbia Federation of Labor considers refusal of investigation into condition of men who, by Provincial Legislation are working eight hours in coal mines instead of eleven and as a result have had their wages reduced, is similar effect to the cause of the Winnipeg strike. Unless something is done for these men the Federation will be compelled to render support in case of strike in the only way possible. Have no desire to see any trouble in the West and consider the only way in which a strike can be averted is by granting an investigation."

NORTHERN ONTARIO.**Matachewan Gold Mines.**

According to mining men just returned from Fort Matachewan district, a rich lens of ore has been encountered at a depth of about 80 feet on the Otisse property of the Matachewan Gold Mines. Visible gold, it is said, has been found to occur in spectacular quantities. The outlook for the property appears to be quite encouraging, and, as a result, enthusiasm is growing. The general inclination among property owners is to await further developments, yet there is increasing evidence that a large amount of work will be proceeded with on properites lying close to the Otisse.

The Cyanide Supply.

At the conclusion of his visit to Cobalt, Poreupine, Kirkland Lake and Boston Creek, Mr. Neill, of the Cassel Cyanide Company of Glasgow expressed himself to the Journal as being much impressed with the great headway made during recent years, particularly at the gold mines. Mr. Neill was especially impressed with the efficiency of the mining engineers throughout the district, and appeared to be of the opinion that Northern Ontario was entering into a great period of prosperity.

Concerning the supply and the cost of cyanide, it was pointed out that the supply was now equal to the demand, and that the price had declined more than five per cent., with indications of still further decrease.

Kerr Lake.

A dividend of 25 cents per share will be paid June 16th to shareholders of the Kerr Lake Mining Company, of record June 2nd. This will call for the disbursement of \$150,000, and is the second to be made this year. Total dividends paid by the Kerr Lake since the first disbursement on October 4th, 1905, amounts to \$8,310,000, inclusive of that just declared.

McKinley-Darragh.

The McKinley-Darragh dividend of 3 per cent. payable July 1st, to shareholders of record June 7th. The disbursement will amount to \$67,428, and is the third to be paid so far this year.

The first dividend payment on the McKinley-Darragh was made on March 1st, 1907, since which time a total of \$5,551,879, has been paid, amounting to 250 per cent. on the company's issued capital. The company attained the peak of its prosperity in 1913, during which year some 46 per cent. was disbursed in dividends.

The Gillies Limit.

It is learned on good authority that it is quite probable the Ontario government will not open the Gillies Limit for prospecting this year. The government has looked with favor on the suggestion that the Limit be opened this summer, but after making due investigation, feels that it is perhaps only fair that the owners of the Limit should be given the coming winter in order to raise the timber.

The general feeling at the government's probable failure to open the Limit this year will no doubt be one of disappointment, yet mining men and prospectors may reasonably be expected to be among the first to agree that such is the only fair thing for the government to do.

Many returned men are understood to be renewing

acquaintances with the Gillies Limit territory, and when the time comes to lift the ban, some of these men will perhaps be in possession of much useful information.

Dome Mines.

The annual meeting of the Dome Mines Company will be held about June 10th. The directors will visit the mine about June 4th or 5th, both in connection with the Dome Extension property as well as the Dome Mines. The favorable developments at the 600-ft. level of the Dome Extension lends considerable weight to the growing belief that the Dome will exercise its opinion on the Dome Extension prior to March of next year. The president of the Dome is expected to make a more or less open statement with regard to the probable trend of developments during the next few months.

\$50,000,000 From 50 Acres.

A block of fifty acres of territory lying immediately adjacent to The Square, in Cobalt, has yielded approximately \$50,000,000 worth of silver, or an average of about \$1,000,000 per acre. There are other sections in the Cobalt camp that can lay claim to a somewhat similar record, yet in no other part of Northern Ontario is there so large a compact block of fifty acres, which has yielded such an aggregate value of precious metal.

The fifty acres referred to is owned in part by the Coniagas and in part by the Nipissing.

McKinley-Darragh.

Despite the fact that the 250-ton oil flotation plant at the McKinley-Darragh has been set in operation at full capacity, and that production during recent months has been considerably higher than during 1918, the company has found it possible to reduce working forces to the extent of about ten per cent.

Arrangements are now being made to explore the south-eastern part of property, which lies adjacent to the Nipissing mine and not far removed from that area where the Nipissing encountered such favorable results in vein No. 109. The McKinley has a small conglomerate area here which has been only partly explored. Several years ago a cross-cut was driven into this area from the 250-ft. level of the main workings, but the work was discontinued before the promising area was thoroughly explored.

Nipissing.

The Nipissing Mining Company has declared a dividend of 5 per cent. together with a bonus of 5 per cent., payable June 21st, to shareholders of record June 30th. The company is capitalized at \$6,000,000, and the July disbursement will amount to \$600,000.

The Nipissing is the largest dividend payer among the precious metal mines of the Dominion, having paid its first dividend on July 20th, 1906, since which time a total of \$19,140,000 has been paid, including that payable in July. The company commenced the current year with ore reserves of 6,000,000, since which time developments have been favorable and point toward the reserve being increased during this year.

Silverton Miners Want Six Hour Day.

At a recent meeting of the Silverton Miners' Union it was decided to endeavor to obtain a six hour shift as a day's work at the rate of pay of \$1 an hour.

Miller Independence.

At the 100-ft. level of the Miller Independence Mine at Boston Creek, a rich body of ore has been cross-cut. At the time of writing a width of about sixteen feet has been exposed, with the face of the cross-cut still in ore. Tellurides of gold are said to occur, and while assays have not yet been taken, it is evident the gold content will be high.

The contract for clearing the right of way for an electric power transmission line has been let and the work will be commenced within the week. Transformers placed on order several weeks ago are due for delivery about the middle of June. Several carloads of material and equipment for a big new reduction plant, including a roasting plant, are due for delivery within a reasonably short time and the road from the station is to be improved preparatory to hauling the large amount of material.

Dome Mines.

It is stated, unofficially, that mill heads at the Dome Mines are running as high as \$9 to the ton. While it was learned in semi-official circles some time ago that the management intended to treat ore for the time being with an average of about \$7 to the ton, it is considered not improbable that a certain amount of \$9 ore may be going to the mill.

Hollinger.

Former employees of the Hollinger Mine, who enlisted for overseas service are being given their old positions. Not only this, but they are also being given their promised bonus of 100 shares of Hollinger stock. One of these returned men stated to the writer that the treatment accorded the Hollinger employees, and the working conditions, are of the best, and that every facility was being provided to assist in the efforts of the most ambitious or energetic to get ahead and increase their income.

The minimum wage underground is \$4 for eight hours, but where the energetic worker so desires he is permitted to do work by contract and in this way increase his income. In not a few instances, this is being taken advantage of. As in the case of the returned man referred to above, an average of upwards of \$5 is being earned for each eight hour day.

Kirkland Lake Miners' Demands.

Under date of May 27th the representatives of the Kirkland Lake branch of the International Mine, Mill and Smelter Workers Union presented a demand to the mine operators of Kirkland Lake, asking for a forty-four hour week instead of forty-eight hours as at present. They also ask for recognition of the Union, for full day's pay on Saturday for four hours work, and a minimum of \$4.50 per day for all underground workers. The mine operators are given ten days in which to consider the matter.

The view of the mine operators appears to be that the present high cost of living demands that every workman should be paid as high a wage as is possible, but in view of the heavy economic strain under which gold mines are being operated, it would scarcely be possible to shorten the number of working hours or to increase pay. To this, of course, there may reasonably be found isolated exceptions, but, on the whole, such appears to be the general view.

Teck-Hughes.

According to information from Kirkland Lake, a considerable quantity of high grade ore has been encountered in the Teck-Hughes mine. The new orebody is understood to contain average values well above that of ore heretofore developed.

In view of the fact that the average value of the ore treated during April amounted to \$10.46 per ton, the present favorable developments holds out the promise that the average heads may be increased to a point second only to the adjoining Lake Shore mine. While full details as to the extent and average gold content of the new orebody, definite information is lacking, but some of the ore is reported to run as high as \$30 to the ton.

CHICAGO MEETING A. I. M. M. E.

Plans for the meeting of the American Institute of Mining and Metallurgical Engineers at Chicago next September are assuming definite form, and the Committee in charge announces the following schedule of events.

On Monday, September 22nd, the opening day, the morning will be devoted to registration of members and guests at the convention headquarters, the Congress Hotel. Monday afternoon the first session for presentation and discussion of technical papers will be held, and in the evening a Smoker, at which the committee guarantees all traces of glaciation will be dissipated.

It is planned on Tuesday to make an excursion in a body, by a boat chartered for the occasion, across the south end of the lake to Gary, for a trip through the famous steel mills. Wednesday will be devoted to technical sessions, morning and afternoon, and in the evening the banquet will be held at the Congress Hotel, at which all members of the Institute and their wives will be the guests of Chicago.

On Thursday, a special train will convey the members and guests to La Salle and Depue, Illinois, where the zinc smelteries, coal mines and cement works will be visited. For those to whom these industrial operations are not of particular interest—this may include many of the ladies—there will be a trip by automobile to Starved Rock and other points of historical interest in the vicinity of La Salle.

For Friday, the 26th, several optional excursions have been planned to local industrial plants. One trip will take in the lead refineries at East Chicago and the Standard Oil Refinery at Whiting. Another excursion will be to Milwaukee, to the plants of the Allis-Chalmers Company and the Power and Mining Machinery Company; this trip will also include the metallurgical works at North Chicago of the Fansteel Products Company where their novel electrothermal processes in the production of metallic tungsten, molybdenum, cerium, and tantalum will be demonstrated.

For those interested in coal mining it is planned to have an excursion to the fields in Franklin and McCoupin Counties, leaving Chicago late Friday evening and spending Saturday at the mines.

Florence Silver.

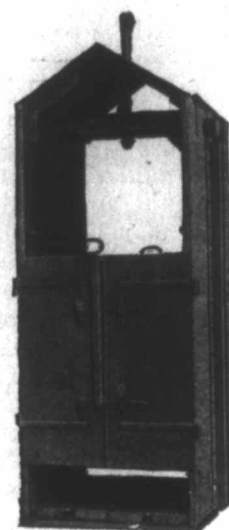
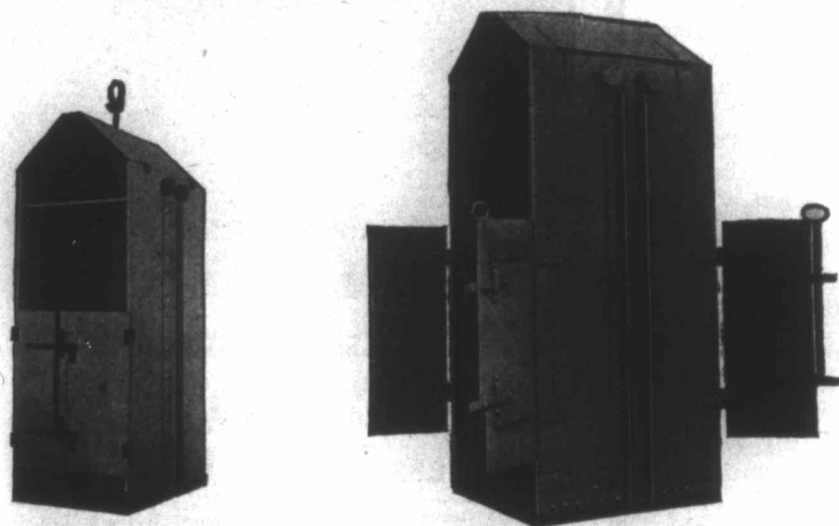
The retiring board of the Florence Silver Mining Company was re-elected at a recent meeting of the stockholders held in Ainsworth. The board is composed of F. R. Wolfe, president and manager; A. F. Kelly, vice-president; D. E. Saunders, secretary-treasurer; J. A. Lavender and A. M. Frost.

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Mining Corporation.

The Mining Corporation has stopped exploration work on the property acquired some few months ago in the south-eastern part of the township of Bucke. At a depth of about 300 feet some lateral work was done, three veins being cut. In no case, however, did they carry commercial values, with the result that work for the time being at least has been stopped.

The Cowichan Manganese Deposits.

Towards the end of the war announcement was made that a considerable deposit of manganese had been discovered in the Cowichan District, Vancouver Island. The news created much interest in mining circles and also received general attention because of the need of the mineral for munition purposes. Since then a report has been published by G. C. Mackenzie, formerly of the Dominion Geological Survey, on the deposits which speaks highly of the showings, but regrets that more development did not take place between the date of the record and that on which the report was written. Since then C. H. Dickie, one of the owners, who has had some work done, states that some of the ore uncovered certainly contains silver values, but to what extent has not yet been established, the assay returns not having been received. Without question it is a large deposit of ferro-manganese and in this lies its economic value. Enough work has been done with hand steel, he asserts, to prove that the ore carries its high manganese content well below oxidation. Mr. Dickie, with the aid of the Provincial Government, is now preparing to build a road up the mountain side. A satisfactory grade has been obtained, there being a raise of 1,800 feet in a distance of three and one-half miles. Over this road it is proposed to take caterpillar trucks with a trailer to transport the ore to rail. When the property has been further developed and there is more ore in sight the transportation problem should be solved by the installation of an aerial tramway, the conditions for the use of this method being ideal.

THE ROMANCE OF SILVER.

A silent battle is being waged between those who require silver and those who represent the producers. Such is the opinion of interests in close touch with the precious metal situation. The white metal having once more been placed on a solid footing and the price being regulated by the law of supply and demand, the consumer is apparently withholding bids until the last possible moment in an endeavor to induce the producer to throw his product on the market at going prices. Likewise, the producer appears to be waiting competition on the part of those desiring to purchase, with the result that a silent test of endurance, so to speak, is taking place. The present peculiar situation adds still further to "the romance of silver." Like the mystery that surrounds the screen at the close of each episode of serial photoplays so hangs the element of mystery about the white metal. What will be the next move in the quotations for commercial bar silver?

Boston Creek.

One of the most interesting developments in the gold districts is the development of a high grade orebody measuring upwards of sixteen feet in width at the Miller Independence. The ore is exceedingly rich in gold tellurides and has caused much enthusiasm in the Boston Creek district. In a general way, both in the proven gold mining districts and in the prospective field, activity is increasing steadily and the former anticipation of one of the busiest summers on record in this part of Northern Ontario is already being realized.

PERSONALS.

Mr. T. R. Jones, superintendent of the Buffalo Mines, together with his family, are taking up residence in New Wilmington, Pa. Mr. Jones will continue general superintendent of the Buffalo, and will pay a visit to the mine at regular intervals.

Mr. Frank Loring has returned to Toronto after examining properties at Boston Creek.

Mr. W. R. Rogers is at Kirkland Lake, making a topographical map of the area.

Mr. A. G. Burrows and Mr. P. E. Hopkins are making geological examinations at Boston Creek.

Mr. J. B. Tyrrell is at Kirkland Lake.

Mr. Geo. Rogers has returned to Toronto from Wasapika.

Mr. Harwood, who has been recently in Los Angeles, is again at the Schumacher Mine. Mr. Harwood was in charge of the La Rose Mine for several years.

Mr. A. R. Whitman has been examining properties in the West Shining Tree gold area.

Mr. H. C. Crow, President of Cartright Gold Fields, Limited, is leaving the west on a combined business and pleasure trip to England and the Continent. He is being accompanied by Mrs. Crow.

The Carmi Mine.

Seattle and San Francisco interests are said to have an option and bond on the Carmi Lode Mine, Carmi, B.C. A compressor will be installed at once and considerable work done this summer. A new mill may be erected. As the ores of this mines have a copper base the starting of the Greenwood smelter would stimulate the development of the Carmi and other mines of the vicinity.

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