

EDITORIAL

THE SYMPATHETIC STRIKES.

The sympathetic strikes which we have had recently in various centres in Canada cannot be considered to be remarkably successful from the standpoint of the strike promoters. They have served a useful purpose in directing attention in a forceful way to the widespread discontent caused by the high cost of living. They have at the same time demonstrated that the general public will not submit to the dictatorship of radicals who would turn government upside down if they had their way.

Strikes have their place in the industrial world. If it were not that they are so often accompanied by unnecessary violence and destruction of property we would welcome them occasionally, for they often bring discontent to the surface and lead to desirable improvements in conditions. Strikes are undoubtedly Labor's most powerful weapons and no class need ask that Labor be deprived of its weapons so long as they are used in fighting for a good cause. We would protest against the sympathetic strike because it is obviously a misuse of weapons, an attempt to gain selfish objects by imposing indiscriminate hardships on the rest of the community. We do not wonder therefore at the reception given to these strikes in Canada. The recent action of the Metal Trades Council in advising sympathetic strikers in Toronto to return to work is a sign that the strikers themselves are not overly enthusiastic.

WAGES AND HOURS.

Miners at Kirkland Lake and Cobalt are making demands on their employers for higher wages and shorter hours. These are matters that should naturally be adjusted by arbitration between employers and employees. There are two sides to the question.

The miners are doubtless aware that conditions at present in Ontario gold and silver camps are much brighter than in many mining districts in North America. They will do well to consider whether they should not do their best to hold the jobs they have. If they make unreasonable demands they may so change conditions that there will be few opportunities for profitable employment. Gold must be sold at the standard price regardless of cost of production and where the margin is small the sure result of increase in cost is obvious. Moreover, there must be a very considerable profit on operations in order merely to return capital invested and a moderate amount for the use of the money.

The profitable mine must in addition return a considerable amount to bear the cost of exploring and developing other properties, many of which prove to be "lemons." The profitable companies pay directly for only a very small part of the cost of searching for and developing the other properties; but indirectly they must pay if the industry is to grow as it has in the past. In the hope of developing a very profitable mine, men spend money in very considerable amounts on promising properties. They lose more often than they win. They would surely not continue if there were no hope of large profits. There would then be no new mines developed and the miner would be in little demand. It is obvious that the miner profits more surely than does anyone else as the industry develops. It is up to him therefore to take care that his demands be not unreasonable. He should demand a fair share in the profits of the industry; but so long as others bear the cost of all the unprofitable ventures he should not be disgruntled if a few of these venturesome ones are successful. In fact, he would have more occasion for discontent if there were no prizes to lure the adventurer into new fields.

The miner may reasonably demand good wages and an eight hour day. He should also have the Saturday half holiday if he wants it and is willing to give something for it. The actual wage must be determined by conditions that are partly local and partly general; but in our opinion general increase in wages at present would give no permanently good result. What is more needed is co-operation between employers and employees to fight the increasing cost of living. Advance in wages may be necessary to relieve the situation temporarily. In fairness to the miner the wages must keep pace with increased costs. It is not surprising that the miner desires to get a lap ahead in the race, but that is not sufficient excuse for keeping him a lap behind.

We have no sympathy with the idea that industry should not be carried on for profit; but if it were, it would be found that there is no great profit in the mining industry at present. There are notable successes which obtain much publicity, and there are countless failures in which the public takes little interest. If the miners owned all the prospects and mines and worked them on a mutual profit sharing plan, they would find that their present wages would appear much larger than when they compare them with the profits of a few successful companies.

The miners can fairly demand that they should receive for their labor, wages that will enable them to bring up their families in reasonable comfort and provide their children with such education as will make them good and useful citizens. If the present wages are insufficient to give labor reasonable cause for satisfaction, demand for increase is a natural consequence. It then remains to be determined whether the industry can stand the increase. There is no doubt that a few mines could be operated at a profit even if wages were much higher; but the answer to the general question is not so simple. We shall be disappointed if it is found that the industry cannot flourish while enabling the miner to earn a decent living.

WORKING HOURS IN NOVA SCOTIAN COLLIERIES.

Before the Royal Commission on Industrial Relations which completed its tour of Canada by a recent sitting in Sydney, C.B., the President of the United Mine Workers in Nova Scotia outlined to the Commission the decision of the miners to obtain a five days week with eight hours daily work, and announced that "ultimately they hoped to get a six hour day and a substantial increase in wages." This system the Local President of the U. M. W. of America thought "would act as a cure for unemployment as a large number of men not now at work would be absorbed."

We have every sympathy with the desire of miners to ameliorate their living and working conditions, but surely the responsible leaders of men do not believe their employment can be increased by decreasing working hours and increasing wages, or, in other words, by the process of adding to the cost of coal to the consumer? The reason for any lack of employment in Nova Scotian collieries at the present time lies in the high cost of coal production there, and the consequent limitation of the radius in which Nova Scotian coal can find a market. There is really no over-production of coal anywhere to-day. Over-riding everything, and only temporarily obscured by the unrepresentative conditions of the coal market that momentarily exist, is a world shortage of coal. The only place where there is no local shortage is North America, and probably nowhere in the world can coal be mined so cheaply and in such abundance to-day as in the United States.

The amount of employment available at Nova Scotian collieries is decided by the competitive prices of United States coal in Canadian markets. If Nova Scotian coal is now unsaleable at a profit in Montreal, how will much shorter hours and a substantial increase in wages provide additional employment?

Over eighty per cent of the coal now mined in Cape Breton comes from undersea areas. What would a six hour day mean in a submarine colliery? Possibly not

more than four hours work at the coal-face. How could coal be produced and sold at a profit from submarine collieries under such conditions?

Further, it should be noted, that coal lies at the base of our industrial structure, and that every manufacturing process and all transportation charges must bear the burden of increased coal-selling prices. It would be interesting to know just how much of the increased cost of living is directly and indirectly attributable to the increase in the price of coal to the consumer. We suspect the bulk of it is so attributable, and if the coal miner insists upon demanding preferential treatment in his work, and hours of work and wages which are out of proportion with those of his fellow-unionists it must inevitably result in lessened employment and increased living costs for everybody.

The maintenance of a gold standard of currency and coal production are very closely inter-related, so inter-related in fact that every increase in the cost of coal to the public is equivalent to a depreciation of the currency value, and it is perhaps time that we should stop talking of the high cost of living and should discuss the depreciation of the dollar. It may be demurred that coal is not any more basic than other essential commodities, such as wheat and food stuffs generally, and from the standpoint of physical existence that is correct. From the standpoint, however, of monetary values, there is nothing to-day that is so fundamental as coal selling-prices, and that is why the wages and hours of labor of coal miners are of greater importance and of wider effect than might be inferred from a comparison of the number of men engaged in coal mining with those engaged in all other industrial pursuits.

EXPLOSION OF BLACK POWDER IN THE BALTIMORE MINE OF THE DELAWARE & HUDSON AT WILKESBARRE.

The newspapers record the death of 83 men and the serious injury of 50 others by burning and violence through the explosion of seven kegs of black powder in the Baltimore Tunnel of the Delaware & Hudson at Wilkesbarre. The powder was being conveyed into the mine in the same trip that carried men to their work by means of an electric trolley road. The accident is, so far as we know, a unique one. Newspapers accounts of mine accident are not always to be wholly relied upon, but the combination of a workmen's train, a large quantity of black powder, and a bare overhead electric trolley-wire, is one that is not conceivable in a coal mine operated under the regulations of most civilized countries.

The use of black powder in a coal mine is in itself scarcely excusable, and it is surprising that the practice should still be permitted. The advantages of black powder, and it has some advantages, do not out-

weigh its danger. The use of overhead trolley systems in collieries in the United States has always been a source of astonishment to British mining engineers, although their convenience and economy are very great. The conveyance of black powder in a workmen's train was not only inexcusable but unnecessary. Explosives cannot be carried on ordinary passenger railways, but the conditions of confinement in a colliery tunnel would cause a much greater potential danger than any conceivable conditions above-ground.

Collieries will never become comparatively safe places — they can never be entirely safe — until naked lights of all descriptions are prohibited. Naked lights may be considered to include any sparking or danger of sparking of electric appliances, the use of any form of blasting except "permitted" powders and electric detonators, and, of course, the use of all open lights such as acetylene torches and unenclosed oil lamps.

We shall await with interest the comment of United States coal journals on this disaster, and the more exact details which will be presented at the enquiry.

SUBMARINE COAL LEASE QUESTION IN NOVA SCOTIA.

Text of Recent Act.

The Legislature of Nova Scotia, during the session recently prorogued, passed an act "to legalize and validate an Order-in-Council respecting a Certain Coal Area in Cape Breton," which conveys to the Nova Scotia Steel & Coal Company the right to enter upon the leased areas of the Dominion Coal Company abutting upon the north side of the area leased by the Scotia Company and forming the territory tributary to the workings of the Florence Colliery. The permission given is limited to a distance of one thousand feet in width by approximately 5,000 feet in length, and has the effect of increasing the area tributary to the Florence Slope by a parallelogram of that extent.

Compensation to the Dominion Coal Company is to be paid under the arbitration clause of Chapter 16 of the Acts of 1918, and such compensation will be in addition to the usual royalty of 12½ cents per ton on the coal mined and sold from the transferred area, which the Scotia Company will pay to the Government.

The validation of this Order-in-Council was regarded by the Nova Scotia Government as merely a measure of temporary relief to the working conditions of the Florence Colliery, and at the recent session of the Legislature an act was passed giving to the Government general powers to deal with the submarine coal tracts so as to assure as far as possible that these tracts shall be worked most advantageously and in the best interests of the Province. The text of the Act is as follows:

1.—The Governor-in-Council may whenever he deems it expedient appoint two or more persons, of whom the Commissioner of Public Works and Mines may be one to be commissioners to inquire into and concerning whether any worked or unworked submarine coal mining area now held under lease and subject to the provisions of the Mines Act, can, if

unworked by advantageously worked or if worked be more advantageously worked in the best interests of the Province by some other leasee of coal mining areas that are subject to the provisions of the "Mines Act," and to report thereon to the Governor-in-Council with any recommendation such commissioners may think fit.

2.—For the purpose of any inquiry such Commissioners shall have all the powers, privileges, authorities and immunities of a Commissioner appointed under "The Public Inquiries Act" passed at the present session of the Legislature.

3.—Notwithstanding any of the provisions of any act of the legislature of Nova Scotia and notwithstanding any lease of coal mining areas heretofore or hereafter issued under authority of an Act of the Legislature of Nova Scotia, the Governor-in-Council on the report of such Commissioners is authorized and empowered to make such orders and regulations as he may deem expedient for the purpose of ensuring that such submarine coal mining area shall be worked in the best interests of the Province, and for greater certainty but not so as to restrict the generality of the foregoing terms of this section it is hereby declared that the Governor-in-Council may by Order-in-Council, vest in any leasee of any coal mining area that is subject to the provisions of the "Mines Act" any submarine coal mining area that is so subject and is held by any other person as lessee.

4.—When any such area is vested, as aforesaid, the person in whom the same is so vested shall hold the same subject to the same terms and conditions and covenants upon which it was held immediately before being so vested and on such other terms and conditions as the Governor-in-Council deems expedient.

5.—Compensation shall be made by the person in whom such areas are so vested to the person so divested of such areas and the same shall be determined by the Governor-in-Council and may be according to such method and on such basis as he deems expedient and without restricting the generality of the foregoing such method and basis may be in one or more of the following ways or partly in one way and partly in another, namely:

- (a) vesting as aforesaid of areas in one person in satisfaction in whole or in part of those vested as aforesaid in another person;
- (b) a payment of a fixed sum in cash or in instalments; two hundred and forty pounds of coal which may be mined from the area so vested;
- (c) a payment or royalty per ton of two thousand and two hundred and forty pounds of coal which may be mined from the area so vested;

6.—The compensation for any area so vested shall stand in the stead of such area so vested, and any claim to or encumbrance thereon shall as respects the person in whom the area is so vested be converted into a claim to or upon compensation and shall no longer affect such area; provided that where such compensation is wholly or in part in cash the same may be paid to the Prothonotary of the Supreme Court at Halifax, and the same may be paid out to the person or persons entitled thereto on application to a Judge of the Supreme Court who may make such orders and direct such notice to be given as he deems necessary to protect all persons interested in the cash paid to the Prothonotary as aforesaid.

7.—This Act shall not apply to any submarine coal mining areas now held under lease dated 1st day of April, 1893, entitled "An Act for the further encouragement of coal mining."

The Act, which was brought down as a Government measure, was moved by the Hon. Commissioner of Mines, Mr. E. H. Armstrong, in an exhaustive speech of some three hours in duration which showed that the Commissioner had devoted to one of the most important matters that ever come before the Nova Scotia Legislature the attention and research that the delicate and involved question of the undersea coal leases deserves.

A perusal of the Act will show that it is not a confiscatory or extremely radical measure, and that it aims only to empower the Government of Nova Scotia to transfer the right to mine coal from undersea leased areas upon payment of proper compensation.

Clause 7 of the Act excepts from the provisions of the Act the so-called "blanket lease" of the Dominion Coal Company, which is a lease of the various properties consolidated and incorporated into the Dominion Coal Company's areas at the time of the formation of the Company in 1893. This lease contains special covenants inhibiting the Legislature of Nova Scotia from enacting future laws that would lessen the value of the properties contained in the "blanket lease."

It is of course, well known that the action of the Government arises out of the undersea areas question as it affects the Dominion and Scotia Companies, and it has been publicly announced by the Commissioner of Mines that the appointment of a Commission under the powers conveyed by the Act will not be made until it shall have proved impossible to arrange an adjustment of the undersea areas by private negotiation between the two companies concerned. It is understood that, at the request of the Nova Scotia Government, committees from the Boards of Directors of the Dominion and Scotia Companies have already been in conference with this object in view, but so far no information has been given to the public by either company as to the progress of the negotiations.—F. W. G.

REPRESENTATIONS OF THE NOVA SCOTIA STEEL COMPANY

In Connection With the Extraction of Coal From Under-sea Areas:

The technical side of the representations made by the Nova Scotia Steel & Coal Company in connection with the extraction of coal from the undersea coal tract off Sydney Harbour is contained in the following excerpts from a letter addressed to the Commissioner of Mines of Nova Scotia. After referring to the manner in which its collieries are specifically affected, the Scotia Company states:

"Without attempting to detail all the present and future hindrances to the successful extraction of coal brought about by the two companies owning leases which interfere with each other's mining operations, we believe the situation may be summarized by stating that the configuration of the mining areas as defined by the present lease line imposes upon the always difficult engineering problem of successfully mining coal from seams underlying the sea unnecessary and additional

hardships, both in regard to the physical difficulties of approach and extraction, and the cost of mining.

The consequences of the existing situation are, and will be, in part as follows:

Duplication of Expenditure and Waste of Effort.

If the Nova Scotia Steel & Coal Company, for example, should decide to win coal from the leases it holds off Lingan Head; or if, conversely, the Dominion Coal Company should extend its operations to the Sydney Mines side, it will necessitate a duplicate expenditure in railways, shipping piers, colliery equipment, shaft-sinking, and other outlays inseparable from the development of collieries, of an entirely additional and completely unnecessary character.

There will also be other expenditures of a municipal character, such as accompany the development of a community, including water-supply, houses, streets and schools. The major portion of these expenditures will fall upon the operators, who will, of course, be the largest ratepayers.

There is no manner in which these unnecessary and duplicate expenditures can be recouped except through the selling price of coal, and eventually, the public will pay for a proceeding that is inadvisable in every interest as well as unnecessary.

The coal companies are also the largest ratepayers in the existing municipalities, or in other words, they are the largest shareholders in the existing municipal investments.

As the existing municipalities decline, therefore, so will the bulk of the liabilities fall upon the coal companies, who will at one and the same time be required to support declining municipal finances, and also to bear the brunt of new and unnecessary outlays for the creation of mining communities, which can only have an ephemeral existence, because they will be brought about by the attempt to build upon the essentially unsound basis of duplicate exploitation of the coal-field inseparable from a perpetuation of the existing arrangement of leases.

Increased Costs of Mining.

Apart from the permanent burden on the cost of mining coal which would be occasioned by the duplicate expenditure just mentioned, any attempt to mine coal in conformity with the existing lease lines must heavily increase the cost of mining the undersea coal-seams. The conditions imposed by the intervention of leases held by other than the operating company prevent the projection of future workings under the sea in the manner and in the order that ordinary mining practice would direct.

Anything that increases the difficulty of mining coal also increases the cost.

Limitation of the Life of the Submarine Coalfield.

The point where the extraction of coal from under the sea will become impossible by reason of physical limitations is unknown. There is, however, another limitation to undersea coal-mining, that of cost, and it is self-evident that this limitation by cost will be reached at an earlier date by a retention of the difficult conditions of mining occasioned by the lease lines than it will be if mining is carried on in a natural way.

You are without doubt aware how great is the proportion of the coal reserves of Nova Scotia that is contained in the undersea areas. It is most desirable that the maximum yield should be obtained from the sub-

marine tracts, and it is apparent that the more natural, and in consequence the less costly is the method of mining used, the greater will be the income which the undersea coal will yield in royalties.

In other words, the amount of coal recoverable from the undersea coalfield will be decided by the costs of mining, and anything that tends to increase these costs will lessen the amount of coal profitably recoverable.

An Endangering of the Accessibility of the Remoter Undersea Coal.

In those cases where the leases of undersea areas cover territory adjacent to the shore, but do not permit of access to leases held by the same operator lying further out to sea because of the intervention of the holdings of another lessee, it is to be expected that when the immediately available territory is exhausted, except as regards the coal left standing in pillars, that these pillars will be drawn in retreating order commencing at the deepest extension of the pillar workings, which will thereby cut off the access to the outlying coal, and render the extraction of the remoter coal difficult, if not entirely impossible, because of physical problems, and certainly quite impossible as a commercial enterprise.

The foregoing conclusions do not exhaust by any means the possibilities of serious damage to the future of the submarine coalfield, but we believe they are sufficient to indicate to you how real and pressing is the danger."

In confirmation of its statements, the letter of the Scotia Company quotes extracts from a report made in 1877 by the late Dr. Henry S. Poole, at that time Chief Inspector of Mines for Nova Scotia, a document which the "Journal" believes is of sufficient present interest to justify its reproduction in the next issue. The gist of Dr. Poole's recommendations is contained in his statement that "instead of allowing distinct individuals to take out leases of areas, one beyond the other, it would undoubtedly have been better and more conducive to the interests of the country to have restricted each lease to a certain frontage on the adjoining coast."

NORTHERN MANITOBA MINING CO.

The Northern Manitoba Mining Company, with a capital of one million, divided into one million shares of one dollar each, is a local enterprise, almost entirely officered and financed by Pas people. The company's property comprises three gold claims situated at Herb Lake. Machinery to the value of \$12,000 has been installed, consisting of a 40 h.p. boiler, two drills and compressor, with blacksmith shop, and several buildings. A shaft was sunk to a depth of 120 feet, and the values, it is stated, held all the way down. Last spring a carload of ore was sent to Trail, and the smelter returns gave \$81 a ton. The mine operated for a short time only, when, on account of the lack of funds, it closed down.

The president of the company is Mr. H. S. Johnson, manager of the Armstrong Trading Company, and the secretary is Mr. R. Kerr.—The Pas Herald.

WEST SHINING TREE.

The Foisey claims at West Shining Tree have just been placed under option to the E. J. Longyear Co. of Sudbury, Ont., and Minneapolis, Minn. The Millar-Adair, north of the Foisey, has been purchased by Isbell, Plant and Co. The Wasapika gold mine adjoins the latter further north, and all these properties are on the great Ribble vein.

THE ABSORPTION OF SILVER BY INDIA.

A writer in the Boston News Bureau says:

As the Orient was willing to accept silver in place of gold or commodities furnished the Allies during the war, it was to the interest of the United States and the allies that foreign trade balances should, as far as possible, be settled in silver rather than in gold. It was better, also, than by stabilizing exchange or raising credits. The latter expedients only defer the final settlement in gold. The settlement of the Oriental balances in silver during the war represented a definite settlement, calling for no future adjustment.

Normally, India had an adverse trade balance of about \$90,000,000 before the war, but by the end of 1917 the balance is said to have grown to nearly \$400,000,000 in her favor. London could not satisfy this Indian demand and so Lord Reading was sent over here in 1917 to induce the United States government to come to the aid of Great Britain with our store of silver dollars, the only supply in the world left available.

According to official figures, India has absorbed, since April 1913, 1,200,000,000 silver rupees, about 404,166,000 ounces, or roughly, \$400,000,000.

How seriously the situation is viewed in Britain is gathered from the following remarks delivered recently by Sir James Meston, the financial member of the Indian government, in his budget speech:

"Few would suspect the forbidding portals of the finance department of harboring a romance, and yet the whole story of how Sir William Meyer and his trusty henchmen held the gate against inconvertibility and its attendant woes, and of how our old friend Sir James Brunyate fought our battle simultaneously in Washington—the whole story is as good as any romance to those who, like myself, were anxiously awaiting the situation from London. It seemed from week to week an utter impossibility that the government of India could possibly escape from the suspension of specie payments, and yet the feat was accomplished, and India owes no inconsiderable debt of gratitude to those whose skill and tenacity averted the misfortune.

"The crisis, however, has a lesson and that lesson is that we are on permanently unsafe ground until India is educated up to abandoning its habit of hoarding money in unsettled times. India's reputation as the sink of the precious metals is an unhappy one, and we all trust that in time she will outlive it. Meanwhile, government cannot possibly go on meeting the insane demand for silver rupees, which disappear from circulation as soon as they are minted, without serious effects on the world price of silver, already far too high for comfort. There is absolutely no justification for the continuing panic which has drawn 1,200,000,000 silver rupees from our mints during the last four years, and unless it is checked and the hoarded coins restored to circulation we may be forced to reconsider the whole basis of our currency and exchange policy."

When the Federal Reserve Board removed the ban on silver exports, the action was accepted everywhere as heralding the beginning of a new era in silver. "Silver has come into its own," people said. "India needs silver, China needs silver, the world needs silver. Europe must have silver to fortify its paper inflated currency. There cannot be other than a soaring market for silver."

Such were the optimistic beliefs expressed generally, excepting in bullion circles. There, experts know, what most people overlook, that silver is a commodity, the

market for which, like few others, is subject to government necessities. In the absence of any definite knowledge as to future government demands, dealers refused to share in extravagant predictions as to how high silver is apt to go with the export ban lifted.

Seventy-five per cent of the annual silver production has been going to India—the Sink, as it is called; for there it stays and disappears from view. As one silver authority put it, "It is the market for the other 25 per cent production that is expected to govern the price of the whole 100 per cent. If you will tell me what the Indian government is going to do about silver now, I could give you some idea of where the price of silver is going."

India has always been the enigma of silver. But is more than ever so today. It is impossible to get bullion dealers to prognosticate. They deal in only a small proportion of a market—the greater part being at the uncertain disposition of the Indian government; for you cannot ship silver into India without the authority of the Indian government.

"When people tell you," said this silver authority, "that silver is bound to go sky high under present conditions, it is fair to ask them whether regarding that 25 per cent of open supply, or that 75 per cent of India's usual quota. And you will not find anyone who is able to tell you definitely what India is going to do about silver.

"India's absorption of silver is as much a matter of fancy as of trade. It is much easier to gauge the price of a commodity, like wheat, because there we have something that represents a definite human demand.

"As the Indian demand for silver has been most intense for the past two or three years, I think my guess as good as anybody's when I say that if there is to be any change at all in the Indian silver demand, it will be lessened."

If this expert's opinion proves to be the case, the silver outlook would be complicated by the fact that, other things being equal, more than the usual 25 per cent of the production may find its way onto the market.

WASAPIKA GOLD.

Toronto, June 6.

Developments at the Wasapika are stated to be shaping up in a highly favorable manner since aggressive work was resumed early in the year. Manager Geo. R. Rogers, who left for the property last night, stated that the shaft, which has been sunk west of the Ribble vein, has reached a depth of about eighty-five feet and that the showings in the bottom are very encouraging.

While the shaft was sunk some eighty feet away from the vein, it has been proven that gold values permeate the rock over the full width between the shaft and the vein, indicating a very extensive ore body.

It is planned to continue the sinking of the shaft at the Wasapika till the 100-foot level is reached. At this point a station will be cut and a cross-cut run to test out the vein at this depth. The shaft will then be continued down to 200 feet.

The deepest shaft at Kalgoorlie, Western Australia, is at the Ivanhoe mine, which is bottomed at 3,620 ft. Reserves are 1,000,209 tons of \$8.16 ore.—Mining & Scientific Press.

INTERNATIONAL NICKEL.

In his remarks accompanying the annual report, President Bostwick, of International Nickel Co., says it is futile to attempt to forecast conditions that will obtain throughout the current fiscal year.

"There are certain important factors in the consuming markets, both here and abroad," he says, "that must be reckoned with that are temporarily adverse in character, such as the hesitant condition of industry generally, until the definite consummation of the peace treaty; the presence of large stocks of metal and scrap metal, both in governmental and private possession; the embargoes against imports in foreign countries, the difficulties of financing and exchanging in the foreign markets and the possibilities of some restrictive measures as to armaments or trading freely in raw materials being incorporated in the peace treaty.

"On the other hand the company's plants, mines and ore reserves are in splendid physical condition, and there has been provided a capacity badly needed by the company to enable it to advance the uses of its various specialty nickel and Monel metal products for commercial uses. Moreover, with increasing growth in the use of alloy steel an increased consumption in that quarter can be looked for."

Mr. Bostwick says in the first eight months of the fiscal year, up to the signing of the armistice, the company's operations were conducted at full capacity and under the greatest possible pressure for maximum production. The completion of the Port Colborne refinery and the Copper Cliff smelter permitted the company's output to keep pace with the constant increase in the demand for nickel from allied governments. Almost the entire production was used for government purposes and little was available for ordinary commercial lines.

Following the armistice the demand from the various governments was greatly curtailed and this required a rapid adjustment of output. At the close of the fiscal year, March 31, plants were operating about one-third of capacity.—Boston News Bureau.

At the annual meeting of the stockholders of the International Nickel Co., at Bayonne, N.J., the retiring directors were re-elected.

The board met and organized by re-electing the officers. No successor was chosen for the vacancy created by the death of the late Captain J. R. Delamar.

In a recent issue the depth of the Ooregum mine, on the Kolar goldfield, in India, was given as 5,380 feet. A later report, just to hand, states that two shafts, the Oakley and Bullen, have reached the 60th level, which is \$5,419 feet vertically below the surface. The Ooregum exploits an ore-shoot, or series of nearly parallel ore-shoots, on its pitch northward from the Mysore and Champion Reef mines. These properties, so successfully managed by the old and honorable engineering firm of John Taylor & Sons, have been highly productive since 1883. They were first explored by white men in 1871, when an Irish soldier, named Lavelle, began to prospect on the site of ancient workings, which were 300 feet deep in places, notably on the Mysore ground. Last year this group of four companies, all under the same capable management, produced \$10,029,000 worth of gold.—Mining & Scientific Press.

Mines Are Not All Profitable

Ninety Per Cent. of Earnings in Successful Northern Ontario Mines are Paid Out in Wages and Materials.

By J. A. McRAE.

In those days of reconstruction, when the nationalization of certain of the industries of the nation are moot questions, it is interesting and may possibly be instructive, to review the position of the precious metal mines. In a sense, the statement that the cost of producing gold ranges between \$30 and \$40 per ounce may sound ridiculous when it is considered that gold has a standard value of but \$20.67 per ounce. The fact is that where one gold mine is brought to a point of profitable production there are scores of mines that do not share so desirable a fate, with the result that nearly twice as much money is spent on gold mines than the value of the total output.

Any one familiar with the mining industry of Northern Ontario and the large amount of capital being spent annually on the mines can clearly realize that during 1918, when only three gold mines and but ten silver mines paid dividends amounting to an aggregate of \$6,819,880, the interest return on the capital involved must be lower than the interest return on the capital invested in any other industry. Indeed, were it not for the fascination of mining, presenting as it does opportunity for large reward to the successful, the business of mining would not be the important national asset that it is to-day. While it would be comparatively easy for an organization or a government to subsidize the existing profit yielding mines and realize a profit for the benefit of the state, yet it is a fact that such a condition would cease with the working out of the present mines, for the reason that the cost of prospecting, exploring and developing new mines would be greater (as shown by facts of history) than the value of the precious metal produced. In a word, the nationalization or the subsidization of the precious metal mining industry does not appear feasible, and if the industry is to flourish, as there is every indication that it will, then the mining of silver and of gold must be left to private or individual effort.

In connection with the silver produced in Cobalt, statements have been made that the mining companies get \$9,000 out of every \$10,000 produced. While to mining men such a statement is known to be utterly erroneous, yet among those not altogether familiar with the facts, reference is often made to such "an unfair division of the result of man's labors." Therefore, in order to prevent the spread of such absurd stories, it might be well to present the facts, which are these:—

In the year 1918, which was the second best year in point of value of production in the history of Cobalt, the mines of the camp produced a total of \$17,290,826, of which \$4,948,348 was paid in dividends, the balance of \$12,342,478 being absorbed in costs of labor and supplies. During the same year the gold mines produced \$8,567,178, out of which \$1,871,542 was paid in dividends, leaving a balance of \$6,695,636 to defray the cost of labor and supplies.

The total output, therefore, of the silver and gold

mines was \$25,858,004, of which a total of \$6,819,890 was paid in dividends, as against a cost of \$19,038,114 for labor and supplies. In dealing with these figures it is well to remember that the dividends paid, as above shown, represent the return on thirteen companies having an aggregate capital of \$67,050,000, and that the interest on this capital amounted to about ten per cent. So much for the successful mines. But, where one mine makes good there are generally scores of failures. Northern Ontario is no exception, and while \$25,858,004 was being produced in 1918, and while the disbursement of \$6,819,890 was being made on the involved capital of \$67,050,000, the unsuccessful mining company were spending sums of money in an effort to make good, this expenditure unquestionably exceeding the profit derived from the successful mines.

Then, too, who are the recipients of the dividends paid? To this there is but one answer: The shareholders of the stock companies operating the mines. At this point another interesting condition arises. The shares of these companies are held by scores of thousands of men and women. Among them are a large number of the mine workers of Northern Ontario. Indeed it would probably be a revelation to know the large total in dividends being collected annually by wage earners in this country and the United States who are shareholders in the mining companies.

With regard to the statistics to which reference has been made in this article, the following figures are presented, which show a complete list of the mining companies in Northern Ontario which paid dividends during 1918, showing the capitalization of each company, and the amount disbursed in dividends. The scores of non-dividend-paying mines are not shown for the reason that they are so numerous and could not be included in any alleged unfair division of wealth, unless it should be that the shareholders might complain against unfair cost of labor and supplies as compared with the value produced:

Company.	Product.	Capital.	Divids. paid in 1918.
Buffalo	(silver) ..	\$ 750,000	\$ 250,000
Coniagas	(silver) ..	4,000,000	500,000
Hollinger	(gold) ..	25,000,000	1,230,000
Kerr Lake	(silver) ..	3,000,000	600,000
La Rose	(silver) ..	7,500,000	30,000
Lake Shore	(gold) ..	2,000,000	100,000
Mining Corp.	(silver) ..	8,300,250	1,380,751
McIntyre	(gold) ..	4,000,000	541,542
McKinley-Darragh	(silver) ..	2,000,000	269,712
Nipissing	(silver) ..	6,000,000	1,800,000
Penn-Canadian	(silver) ..	1,500,000	40,491
Seneca-Superior	(silver) ..	500,000	2,394
Temiskaming	(silver) ..	2,500,000	75,000
Totals		\$67,050,250	\$6,819,890

NORTHERN ONTARIO.

Since the resumption of work early in the year at the Tough-Oakes Mine, development work has added greatly to ore reserves. It is understood from six to eight months ore is now in sight as compared with practically no reserve at the time of closing down last summer.

The mill has not yet been set in operation, it being the intention of the management to concentrate effort toward development work until such time as there can be no likelihood of running out of ore during any period in which development work failed to add to reserves. According to late advice from the mine, a new vein has been encountered in a cross-cut on the Burnside property, which is to be concluded in a merger with the Tough-Oakes. This vein was discovered during the course of connecting the underground workings of the two properties. The consolidated properties bid fair to soon be producing gold at a rate equal or perhaps in excess of the banner days of the Tough-Oakes before the shortage of labor and high cost of supplies caused the big slump in gold mining during the closing months of 1917 and the whole of 1918. Prior to that time the Tough-Oakes was producing as high as \$60,000 per month.

Percy Hopkins and A. G. Burrows, members of the permanent staff of geologists of the Ontario Bureau of Mines, are in the Boston Creek field making a study of conditions there. The amount of work done in the district since the last government report was issued a few years ago makes it possible to prepare a more detailed map and should convey a better idea to the mining public of the big potentialities of the new camp.

The gold tellurides which occur on the Miller Independence are being tested.

An encouraging discovery of gold has been made on the Wickstead property, situated a short distance to the east of Bourke's siding, according to reports just brought out by prospectors.

The case involving a strip of territory lying along the boundary between the O'Brien Mine and the Violet property of the La Rose Mining Company has been concluded, judgment being reserved.

A good deal of work was done on the Violet by the La Rose prior to the time of the dispute concerning the correct location of the boundary. The main shaft, as well as a part of the mine buildings are located on the strip of territory involved.

Among some of those who heard a good deal of the evidence presented at the hearing, the opinion appears to exist that no matter what the decision may be, an appeal to another court is not improbable.

The Sullivan property, situated in the township of Maisonville, near Sesequinika, is to be diamond drilled this summer, according to word just received. The property received a good deal of attention several years ago owing to the discovery of a narrow vein being opened up with spectacular showings of gold.

The return of interest to this area is the logical result of increasing interest in gold mining after the war.

A diamond-drill hole put down near the north boundary of the Miller Independence Mine has penetrated an ore body about sixteen feet in width at a depth of 103 feet. The hole was put down by the company owning the adjoining property to the north, it being planned that the drill would pass onto the Cullen-Renaud property at some little depth. Permission had been granted allowing the machine to be set up on the Independence. The ore body, although encountered near the north boundary of the latter company's property is dipping at an angle of about fifty degrees to the south and is considered to be of very considerable importance to the Miller Independence.

According to information just to hand, not only is it proposed to operate the old Keeley Mine in South Lorrain in an aggressive way, but the controlling interests also are evincing a desire to secure additional property in that district.

During the exploration and development work carried on several years ago in the South Lorrain area, quite a number of large veins containing a good deal of cobalt, with low silver values were opened up. While these veins at that time were of questionable commercial value, it is thought the present higher value of silver might reasonably make them worth mining. And, as a consequence, mining interests are taking new interest in the field.

Dr. Merchant, superintendent of Technical Education in Ontario has concluded a visit to the Haileybury Mining School. Mr. McLaughlin, assistant director of Technical Education also paid a visit to the school.

Arrangements are being made to hold the formal opening within the next few weeks. Hon. Dr. Cody, Minister of Education as well as Hon. G. Howard Ferguson being invited to be present for the occasion.

Arrangements are to be made, it is understood, to provide a mining course for returned soldiers, including assaying, milling, cyanidation, flotation, surveying, etc. A number of applications have already been received.

On June 7th, the Hollinger Consolidated Gold Mines will disburse a one per cent. dividend to shareholders of record June 7th. The disbursement will amount to \$246,000, and is the third of like amount to be paid this year.

The Hollinger paid its first dividend in 1912. Total disbursements since that time, including the June dividend, amount to \$10,162,000. The net earnings are now well above requirements for 1 per cent. every eight weeks, and it is generally expected the rate will shortly be increased to 1 per cent. every four weeks, which was the rate up until a couple of years ago.

Interests in control of the Murray-Morgridge property, at Wolfe Lake, are stated to have made the necessary financial arrangements to resume operations at a very early date.

A small plant was installed about two years ago, and a limited amount of development work done, during the course of which some commercial ore was opened up in a wide vein. An endeavor is now being made to carry out a more or less extensive development programme.

Shorter Hours and Increased Wages Asked by Cobalt Miners' Union

The Miner's Union has shown a tendency to press for demands for shorter hours and increased pay, as well as recognition of the Union in the northern mining camps, including Cobalt, Boston Creek, Kirkland Lake, Porcupine and Gowganada.

A strike vote is to be taken Sunday, in view of the mining companies having not seen their way clear to grant the demands. The Union has asked for a forty-four hour week, and a minimum underground wage of \$4.50, with time and a half for overtime, and double time on Sundays and legal holidays.

Although a strike vote is to be taken, and although there appears to be some possibility of the majority of the union members (which does not represent a majority of the mine workers), voting in favor of a strike, yet there is a feeling that a strike may not be actually called. The belief is growing that should a majority vote be secured, the union might hesitate to strike, and might prefer to request the government to appoint a commission to decide the matter. However, as to this, it would be folly to make a prediction and only the passing of time will determine the outcome of the present controversy.

The letter and wage scale as presented to the mine managers of Cobalt, follows:—

Cobalt, June 2, 1919.

To the Mine Managers,

Dear Sirs,—In accordance with instructions received from a mass meeting of the members of the Cobalt Miners' Union No. 146, held in the Grand Theatre, Cobalt, yesterday, June 1st, we received instructions to visit the mines of the Cobalt Camp and deliver the enclosed demands from the Cobalt Miners' Union. We attach the motion as passed for your information. You will observe by reading the motion that a reply is asked for within forty-eight hours and in order to avoid delay, preparation were at once undertaken to permit of a strike vote being taken on next Sunday, June 8th, should no satisfactory progress be made this week by way of reply or negotiations.

Copy of motion carried at yesterday's meeting:—

"That Executive Committee of the Local Union, visit the Mines of the Cobalt Camp to-morrow, June 2nd, and present our demands as adopted by this meeting and also at last Sunday's meeting; that the Mine Operators be given forty-eight hours in which to reply and that in the meantime, preparations and printing be instituted at once to take a strike vote next Sunday, June 8th, provided no satisfactory reply or adjustment be made in the required time."

Trusting you may see your way clear to confer in regard to the enclosed demands, we are,

Yours truly,

(Signed) JOSEPH GORMAN, Secretary, and others,
Executive Committee, Cobalt Miner's Union.

Following is wage scale adopted by Cobalt Miners' Union, Local 146, exclusive of bonus, concerning which a rider is attached at bottom of this scale.

Underground Men.

Minimum base wage for all underground men irrespective of their trade or line of work	\$4.50
Men working in raises and shafts (no helpers)	5.50
(With rubber boots and oilers.)	

Surface Men.

Deckmen	\$4.00
Deckmen, over sinking operations	4.50
General blacksmiths and all steel sharpeners	5.00
General blacksmiths and all steel sharpeners' helpers	4.50
Carpenters	5.00
Mechanics	5.00
Mechanics helpers	4.50
Hoistmen and engineers	4.50
Firemen	4.00
Compressor men	5.00
Pipefitters	4.50
Pipefitters helpers	4.00
Pump men	4.50
Diamond drill runners	5.00
Diamond drill helpers	4.50
Rockhouse men	4.25
All surface laborers	4.00

Mill Men.

Solution Men	\$5.00
Roll and battery men	5.00
Repair men	5.00
Repair men helpers	4.50
Table men	4.50
Tuke and Ball men	4.50
Filter men	4.50
Flotation men	4.50
Press men	4.50
Jig men	4.50
Dryer men	4.50
Oilers	4.50
General mill laborers	4.00
Electricians	5.00
Electrician helpers	4.50
Lathe men	5.00
Motor men	4.50
Cooks, with room and board; per month	\$135.00
Cookees with room and board; per month	85.00
Teamsters, with room and board; per month	90.00

In addition to above wage scale, bonus to be paid on price of silver as follows:

When the average price of silver is at or over 80 cents per ounce, a bonus of 25 cents per shift to be paid to each employee, and an additional 25 cents per shift for each ten cents per ounce above 80 cents average price.

In no case shall more than \$1.00 per day be charged for board in company boarding houses, based on above wage scale. If more must be charged, wages to be raised correspondingly to cover the difference.

Eight hours per day to be maximum work day for all employees, both underground and on surface, with Saturday half holiday, with full pay, commonly called the forty-four hour week.

In case of underground men the eight hours per shift to be from collar to collar and not at the working face.

Time and a half for overtime and double time for Sundays and all legal holidays.

Recognition of the Union with collective bargaining and the check-off system.

MAGNITUDE OF TEMISKAMING PRODUCTION.

Despite the fact that what is now known as the district of Temiskaming, has been an important silver and gold mining district for more than a dozen years, and that a total value of \$175,000,000 in silver and about \$49,000,000 in gold has been mined, it is a remarkable fact that ore reserves now actually left in sight amount to about \$125,000,000. From past experience it is probable many scores of millions will be added to reserve during the course of mining the gold and silver ore now in sight. Thus, value already produced and value actually in sight makes a total of approximately \$350,000,000. Added to this is a good deal of evidence that would indicate that production has not yet reached the maximum, and that the thousands of miles of territory as yet practically unexplored may be found to contain as great or perhaps even greater deposits of precious metal than those so far opened up.

Altogether something like 11,666 tons of silver and about 120 tons of gold bullion has been taken out. Estimating each car to contain an average of about thirty-five tons, the output of silver would fill about 333 cars while the output of gold would amount to 120 tons and would fill about three and a half cars. The total would make up close to seventeen trainloads of twenty cars to each train. When it considered that a good deal of the silver ore does not yield more than about one pound of silver to each ton of ore treated, and that an average of less than half an ounce of gold is taken from each ton of gold ore treated, it can readily be realized the tremendous tonnage necessary to yield seventeen trainloads of bullion.

Further, in mining hundreds of thousands of tons of ore, it has been found necessary to handle scores of thousands of tons of waste rock. The whole process has necessitated several score miles of drifting, or cross-cutting, tunnelling and sinking — always in the solid rock — so extensive being the workings that if they were placed end to end it would constitute a tunnel through solid rock nearly from Cobalt to Toronto. There are a number of the mines each of which have done more than twenty miles of underground work.

Mining men and prospectors recently returned from the Skead township district report more activity in that area than since 1913. Several gold finds have been made, some of which bid fair to be of importance.

The shaft of the Wiscon-Skead has reached a depth of 100 feet, at which point a station is being cut, and arrangements being made to do some drifting.

In the past few weeks the position of silver has been reversed. Where the maximum price recently prevented an increase in quotations, that barrier has now been removed, and, instead, a minimum price of \$1 an ounce has virtually been fixed. The reason for this belief is the fact that the treasury of the United States is to be restocked at a price of \$1 an ounce for silver, to the extent of perhaps one-quarter of a billion ounces. The silver producers, therefore, appear to be assured of a favorable market for their product for a good many years to come.

In the aggregate the mining industry of the north never appeared to command so much attention as now. British and American interests appear to have awakened to the enormous potentialities of Northern Ontario, and there are indications that a large volume of much needed capital will be made available during the next few months for the exploration and the development of mineral deposits in all parts of the country.

A. H. Brown, mining inspector for this district, has recovered from his recent illness, and has resumed his duties.

C. H. Porrier, of New York, is making an examination of the Cullen-Renaud property, of the Allied Gold Mines.

J. M. Wood, of Toronto, is in the north on business.

W. E. Gowans, late of the C. E. F., and formerly of the staff of the Dome Mines, has been engaged as mine captain at the Miller Independence.

Frank L. Culver, president of the Beaver Consolidated, is in Kirkland Lake in connection with the Kirkland Lake Gold Mines of the Beaver Company.

C. D. Kaeding, manager of the Dome Mine, will return to the north this week from New York.

MINERALS SEPARATION.

Washington, June 5.

United States Supreme Court in the case of Minerals Separation, Ltd., vs. Butte & Superior Mining Co., has reversed the Circuit Court of Appeals of San Francisco in its holding that the patent covering the so-called flotation process is limited to one half of one per cent, or less of oil.

It upholds the contention of Minerals Separation that the patent covers any fraction of one per cent of oil. The case was remanded to the District Court of Montana for decree and accounting.

A well-known English coal periodical, commenting on the proceedings of the Sankey Coal Commission, remarks that it does not necessarily follow "because a man is good enough for a seat on a Commission he is fit to manage a mine."

The comment is acid, but it is meticulously accurate.

POWDER EXPLOSION ON UNDERGROUND TRAIN.

Wilkesbarre, Pa., June 5. — Sixty mine workers were killed and forty others injured at the Baltimore No. 2 tunnel of the Delaware and Hudson Company, near here, early to-day. A car of black powder attached to a train of cars on which the men were riding to their chambers in the mine exploded. An electric motor drew the cars. The trolley wire broke and sparks ignited the powder. Men were blown everywhere, but most of the deaths were caused by fire and suffocation.

MANITOBA MINING NEWS.

(From "The Pas Herald.")

The copper ore stored at Rocky lake is being brought to The Pas, unloaded into teams and transported across the town to the railway cars. The water in The Pas river is too low to permit of barges getting up to the ore docks. The ore is being brought down at the rate of 100 tons daily.

The Herald is advised that an interesting announcement will shortly be made in connection with the great sulphide ore body at Flin-Flon. Negotiations are taking place in New York between the owners and American capitalists.

The Pas Consolidated, the Rex and the Northern Manitoba, are three properties at Herb lake it is hoped will get going sometime this summer. At present there is nothing more than current reports of their intentions to prosecute active mining. Lack of funds is an ailment common to all three.

W. J. Young, mining broker states that he has received far more inquiries for mining properties this spring than at any previous period. Gold claims appear to be in greater demand than sulphide properties. He finds the situation very encouraging.

C. W. Greenlees is in from Schist lake with a story of a new sulphide ore discovery on the north end of that lake. Samples of ore were shown, and the stuff is something similar to the Flin-Flon ore. The finders are Pete Davidson and Baptise Lavasseur. The location of the strike is exactly on the tip of the lake end, west of the Pineroot river, and well in line between the Mandy mine and the sulphide ore deposit at Flin-Flon. Six claims were recorded on this strike.

An important discovery of silver-lead ore is reported by Mr. J. P. Gordon, ex-chief engineer of the H. B. R. It was made on a claim near Copper lake, in the Athapapuskow area, and the ore body is said to be large and well defined. Mr. Gordon brought an assortment of the ore to The Pas, and it is noted that he is the first one to cross the numerous lakes at such an early period as May 12th. He found the ice all gone from them.

A. L. Stewart and Bob Hassett have two claims on the N.E. arm of Lake Athapapuskow, about a mile and a half in from the shore, with a vein of chalcopyrite, measuring from 8 to 10 feet wide, and assaying 10 per cent copper with small gold and silver values. The vein is stripped for 60 feet, and a hole four feet deep sunk across it in one place. Considerable development was done during the last three months, and the owners are elated over the showings.

J. A. Cameron, of Regina, is another owner of claims at Athapapuskow with excellent showings. On one claim there are three open cuts, with 10 per cent copper showings. No. 1 is 50 feet long, 10 wide and 10 deep; No. 2 is 20 long, 8 wide and 4 deep; No. 3 is 30 long, 6 wide and 14 deep.

The ice in Athapapuskow went out on May 10th, the earliest period in years. Reports reach The Pas that all northern lakes were free of ice about the 10th of May.

THAT TECK-HUGHES VEIN.

Kirkland Lake, June 5.

The acting manager of the Teck-Hughes invites the author of the story that the mine a few days ago discovered \$30 ore to come up and show the vein to him.—Toronto World.

FIXING THE WORLD'S SILVER PRICE.

Boston—Four dealers in Oriental exchange, meeting daily at the London Metal Exchange, determine the world's price for silver metal, and upon the basis so fixed the New York dealers and producers arrange their own market price.

An exception existed during the period when the Washington authorities, working in conjunction with the British Government, fixed the price and regulated the international movement. This step was taken in order that India's requirements might be supplied from American treasury stores.

London for many years controlled the copper market as well as the prices for lead, spelter, tin and silver. Through the organization of the Copper Export Association in New York and the breaking up of the German metal combine, the copper market control has reverted to this country, where it always belonged.

The United States is the largest individual contributor to the world's silver yield, and the producers have in mind, it is understood, the establishment of means necessary also to fix the price.

While London, handling India's requirements, dominates the greatest consumptive field for silver, New York actually controls the production.

The past fortnight has shown positively that London still controls in price fixing as it has been practically impossible to secure quotations on silver until after London cables have been received. Owing to the speculative influence abroad silver, since its release from government control, has had a rise of nearly 20 cents an ounce followed by a reaction of 15 cents.—Boston News Bureau.

Apropos of the occurrence of elaterite, or elastic bitumen, in a fluorite vein at Madoc, Ont., reported in the Journal recently, it may be interesting to recall that an occurrence of this rare mineral was reported by Professor Boyd Dawkins as occurring near Castleton, Derbyshire (Eng.) in the Carboniferous Limestone, not far distant from the site of the reported finding of petroleum in one of a series of boreholes which are being put down by the British Government. The consensus of the most eminent geologists of Britain has been that a search for oil in Derbyshire, was, as one veteran inspector of mines said, "the wildest of wild-cat schemes."



"Elaterite" or Elastic Bitumen.

The Iron Industry in British Columbia

From Our British Columbia Correspondent.

The development of the iron ore deposits of British Columbia is a problem very prominently before the Provincial Government. During the past two months preparations have been made by W. M. Brewer, resident mining engineer with headquarters at Nanaimo, B.C., to ship ore from some of the at present non-producing properties to small smelters situated near Vancouver City for the purpose of experiment. Mr. Brewer is ready, it is understood, to carry out the terms of the Act passed at the last session of the Legislature authorizing the Government to supply the plants in question with the magnetite ore necessary to establish the practicability of producing in this country high-class pig iron at a reasonable cost. It is believed, however, that he now is met with the fact that the smelters are not in shape to handle the ore, and shipment is deferred until they are prepared to proceed with the work.

W. D. Fleet's Electric Furnace.

In the meantime the Government has been approached by Messrs. William Fraser, manager, and W. D. Fleet, electrical engineer, who are associated with the Magnetite Iron & Steel Company, with an interesting proposition. Mr. Fleet claims to have perfected an electric furnace capable of producing pig iron from magnetite ores at a cost materially lower than is possible by existing methods. He has entered into an agreement with the Vancouver Company whereby the latter controls his process. The company already has an electrical smelter at Potlatch Creek, near Vancouver City, in which, together with outside equipment, there is said to have been invested some \$40,000. Messrs. Fraser and Fleet explained this situation recently to Hon. John Oliver, Premier, and Hon. Wm. Sloan, Minister of Mines, as well as to other members of the Government, and asked for financial aid in carrying the work on which they are launched, to a conclusion. Mr. Fleet stated that before coming to British Columbia he was connected with the Canadian Copper Company at Copper Cliff, Ont., and that his experiments had proved that it was possible to produce pig iron at a cost of \$13.55 a ton, with an assurance of a reduction to at least \$11 a ton by the use of a larger unit.

After consideration of these and other representations the Government decided that it could not do more at the present time than to extend some small assistance towards the demonstration of the process. Accordingly it was later announced that \$2,000 would be advanced the Vancouver Magnetite Iron & Steel Company to aid in proving the practicability of the Fleet Process as applied to the magnetite ores of the Province. With this sum and what will be privately subscribed it is proposed to proceed with the experiment on a small scale, and Mr. Fleet, who states that this can be done in the course of a month or two, is confident that he will be able to satisfy the authorities.

It is appreciated, of course, that, if a high quality pig can be produced here at the figure given, which is materially lower than is estimated by Dr. Alfred Stansfield in his report on the feasibility of electric smelting of British Columbia iron ores, it will mean much to the mining industry of the northwest. In fact it is felt that the practical demonstration of the verity of Mr. Fleet's contentions would result in the early estab-

lishment of the iron and steel industry on a considerable scale.

The Port Moody Steel Mill.

With further reference to the local manufacture of steel, interesting evidence was given recently by G. P. Grant, manager of the Port Moody Steel Mills, before a Royal Commission appointed to investigate the condition of enforced idleness at Vancouver shipyards owing, it is stated, to lack of necessary construction material. Mr. Grant said that he did not consider his company was getting enough orders from the Dominion Government in view of the fact that his was a B.C. firm making B.C. steel. He asserted that his plant was in a position to handle larger orders. There was a twenty-one inch mill lying at the plant unassembled because there was not enough work to warrant its being installed. It could be put in working order in two months. Explaining the system used by his firm for making steel by electric smelting, Mr. Grant said that they used scrap, large quantities of which was supplied by the shipyards. The scrap was all put in the furnace, and refined, and the angles used by the shipbuilders were all made under the supervision of Lloyd's inspector, who passed the material before it left the plant. His firm had no trouble in getting the material without going to the United States or to Eastern Canada and had little or no trouble in operation. "We have been running," he stated, "twenty-four hours steadily with only four hours shut-down and only three or four reject heats."

TRAIL SMELTER NOT TO BE CLOSED.

The Consolidated Mining & Smelting Company, which operates the Trail Smelter, asked 75 men from its Rossland mines, on account of the good progress on development work there, to go to the company's Sullivan Mine at Kimberley, the most important zinc and lead producing mine in Canada.

This apparently gave rise to a rumor that the Trail smelter had closed. There was no foundation for the story as the company is operating the plant as usual.

TO DEVELOP THE YUKON.

The Yukon Development League is asking the Federal Government for a grant of \$100,000, to assist in the development of lode mining. The League suggests the Government send a mining engineer to the Yukon with authority to spend the appropriation on the properties that, in his judgment, are most promising, provision being made to secure the advance by first liens on the properties on which it is spent.

The League is also asking that a railway survey be made from Hazelton or some point on the Grand Trunk Pacific Railway in British Columbia, and Dawson, with the idea of constructing a railway to Dawson at an early date.

The League wishes to have telegraphic communication opened between Eagle, Alaska, and Minto Bridge, near Mayo Landing, on Stewart River. Eagle is connected with Dawson by telegraph.

Dr. Alfred Thompson, the member of Parliament for the Yukon, is now busy on these matters in Ottawa.

Special Correspondence

BRITISH COLUMBIA.

Smelter Charges.

The report of the special committee which has been investigating the smelter charges of the Consolidated Mining & Smelting Company at Trail, B.C., will be forwarded to the Minister of Mines, Ottawa, at an early date. Its findings are awaited by the operators of the Kootenay and the Boundary Districts of the Province with interest. The personnel of the committee is S. S. Fowler, chairman; and Ivan deLashmutt and James Anderson.

President W. H. Nichols Visits Granby Properties.

Dr. W. H. Nichols, President of the Granby Consolidated Mining & Smelting Co., the greatest copper producing concern of the Pacific Northwest, made a tour of British Columbia during the month of May. His object, primarily, was to inspect the properties of the Granby Company. Accompanied by the company's General Manager, F. M. Sylvester, he visited the new colliery at Cassidy's, Vancouver Island, which has been producing some 2,500 tons of coal a month since shipment was commenced, and the equipment of which is reputed to be the most modern and the finest in every respect in the Province. The plant, of course, is capable of handling a much greater output, in fact, it can scarcely be said to have commenced operation in earnest as yet, such development being deferred until the company is prepared to handle the coal at its new by-product coking ovens, which are situated at Anyox, B.C. From this point Dr. Nichols and party proceeded to Anyox, the company's copper producing centre, where is situated its smelter, and near which are its largest mines. This was Dr. Nichols' first trip to Anyox, and he was much interested.

In interviews given in the course of his tour Dr. Nichols said, "If our country was neutral, there was never a day's neutrality with us." Speaking of the production of chemicals during the war, he said, as Chairman of the Advisory Board on Gas Warfare for the United States, that it was the work of the Board to "go the enemy one better" in the manufacture of gases for offensive purposes. In one plant alone 100 tons of mustard gas was being produced daily when the war ended. Had the war not ended when it did a gas attack would have been made on the enemy from Belgium to Switzerland. The production of acids for explosives also had exceeded the best expectations of the United States Government.

Dr. Nichols said that he was now giving attention to industrial development, especially on the Pacific Coast. He was much interested in the Granby properties, naturally, but, as well, found food for thought in contemplation of the natural resources of the western country. The immense wealth of timber possessed by the Pacific Northwest led to the belief that the manufacture of paper was destined to become a leading industry. Chemists would find a means of making the timber now wasted available for the production of paper.

The development of a steel industry, too, he thought quite feasible. With the abundant deposits of mag-

netite ore said to exist, together with the enormous electrical energy which could be developed from the many great natural water powers, he considered that the electrical development of iron ore bodies was a project of great promise.

The Ore Testing Mill.

The suggestion that the ore testing mill which the Dominion Government proposes installing in British Columbia, should be placed on the Coast is vigorously combatted by the mining men of the Provincial Interior. F. A. Starkey, secretary and manager of the Nelson, Slocan and Eastern British Columbia Mining Association, has addressed a protest to Hon. Martin Burrell, Minister of Mines, Ottawa, in which he comprehensively enumerates the claims to the proposed plant of that section of the Province represented by the Association. He says in part: "It is true there are complex ores at the Coast, but they are chiefly copper and iron, which generally require smelter treatment only. Bodies in the North are developed to but a small extent. The interior, on the other hand, has complex ores of all varieties, and has developed them to such an extent that if the problem of treatment were solved they would immediately produce tonnage. There may be some misapprehension as to what constitutes a testing plant, and what its functions are. Whatever the idea of the Government and its officials may be as regards what is necessary, and what will be of lasting benefit to the mining industry, we do know what the people and the miners of British Columbia want, and that they insist and will have. As their views may not previously have been placed before you for your consideration, it may be well to re-state them very briefly.

"You are no doubt aware that there are vast unworked mineral deposits in British Columbia. In addition to gold the principal resources are complex ores of silver, lead and zinc. Unless there contain a large amount of silver it is impossible to find a market for them in the condition in which they come from the mines, unless they first undergo the process of concentration to separate the lead contents from the zinc. If ordinary simple concentration is adopted by the miner, not more than half of the zinc with its proportion of silver is ordinarily recovered. Even if the smaller miner could afford to erect a concentrating plant, the results are generally of too wasteful a nature to be profitable.

"It is therefore necessary to apply flotation and magnetic separation for the saving of metal values. The ordinary miner has neither the means nor the knowledge to apply this process, for the first essential in a flotation process is to determine what modifications are necessary for his particular ore, and which means all the difference between success and failure. For this purpose very highly skilled and costly experts having a wide experience of every kind of ore are necessary.

"As an instance of this I may state that the Standard Silver Lead Mining Co. only adopted flotation in the year 1916, for previous to that time the highly paid experts employed by them were unable to obtain favorable results. Since that time great progress has been made in the art, but it is not anticipated that we will ever be able to dispense with the services of experts to determine the best procedure in each individual case.

"If a central testing plant were established at a

convenient point the expert in charge would be in a position to definitely determine the best process for each ore, and so encourage the miner to lay out capital on his concentrating plant without the fear of losing his money, which has so often happened in the past.

"It is further our opinion that quite apart from the direct value of a Government plant for this purpose a modern concentrating plant would pay a good profit by the impost of a small charge for custom ores.

"If I may remind you the idea of such plants originated in this district, for an organized attempt was made to interest both Federal and Provincial officials in its advantages to the whole country. The proposal was that small but efficiently equipped government concentrating plants should be located in positions that each would serve about half a dozen small mines. These small mines could be operated if concentrating plants were available to make a marketable concentrate, and would contribute largely to the mineral output instead of being shut down as they must be until concentrating facilities are obtained."

The Lockwood-Dalziel Process.

Mining men have been watching with interest the demonstration in Vancouver, B.C., of the Lockwood-Dalziel Copper Recovery Process which appears to be giving satisfactory results. Those who stand sponsor for the process make four claims for it as against the present standard methods of copper reduction, viz.:

(1) A greater percentage of the copper contents of the ore is extracted—the method increasing recovery from five per cent to twenty-five per cent over standard methods.

(2) A saving in operating expenses of from two cents to five cents on each pound of copper produced.

(3) A reduction of from twenty per cent to forty per cent in cost of plant and equipment.

(4) Only ten per cent to twenty per cent as much water required as in other concentrating or leaching methods.

It is said by practical mining men with technical qualification that there is no doubt that apparently satisfactory results are obtained insofar as the separation and recovery of copper is concerned. Which is the most expensive?—roasting, leaching and depositing the copper by electricity as is done by the new process or the direct smelting of the concentrates after paying transportation charges on the latter from the mills. While the efficiency of the method appears to be admitted, there is no certainty on the latter point, although it is not at all improbable that the process will be given a practical economic test in connection with some one of the copper properties which now are in course of development.

Lucky Jim Mines.

The new Board of Directors of the Lucky Jim Zinc Mines, Ltd., is composed of Dr. H. C. Lambach, Spokane, President; George T. Edmiston, Spokane, secretary-treasurer; A. W. Allen, assistant secretary-treasurer; J. J. Collison, Victoria; Charles McKinnis, Charles Ehrenberg and Dr. T. A. Russell, Spokane, directors.

Tramway Installed at Wonderful Mine.

The tramway installed in connection with the Wonderful mine, situated near Sandon, B.C., is complete. It is about half a mile in length and has one span over a thousand feet in length without a tower, one of the longest spans of the Ainsworth-Slocan District.

Tramway from Sovereign Mine to Sandon.

Construction of a tramway from the Sovereign mine to Sandon, B.C., is in progress, the work being in charge of Irwin White. The Sovereign is one of the Cunningham properties and its ore will be treated at the Alamo concentrator. The Alamo mill it is reported to be almost ready for operation. The completion of the pockets and the elevating plant for the handling of ores from the Sovereign and Wonderful mines will put the concentrator in shape for work.

Portland Canal.

Portland Canal is attracting much attention and in this connection the recent announcement that the Big Missouri Group has been transferred by Sir Donald Mann to the Pacific Coast Exploration Company, Ltd., is interesting. William Noble, who is to have charge of the development of this property this summer, has gone in and proposes putting men to work immediately.

Will Develop Babine-Bonanza Property.

Further development of the Babine-Bonanza and the Emerald Group of Claims is proposed by James Cronin, the well-known mining operator of Spokane, Wn., this summer. He already is in the North to make arrangements for the commencement of work as soon as the season opens. On the Bonanza he intends to proceed with the driving of a tunnel to tap the main vein and incidentally to uncover a few other showings. Last fall a contract was awarded for this work and a good start was made before the snow flew so that everything is in readiness for resumption. The Emerald Group is not as far advanced, being as yet a prospect, comparatively speaking. Mr. Cronin has confidence in it and intends giving the work of developing it his personal attention. He states that there is every reason to believe that it will be proved a rich property as soon as the work decided upon is completed.

J. D. Galloway, mining engineer, reported on the Bonanza in 1917. He said that the development since 1909 had been carried on continuously, some work being done each summer and during several winters, a small crew of men being kept at work. Up to that time about \$60,000 had been expended. All the work had been done by hand and had been expensive owing to the difficulty of getting in supplies. The total footage of shafts and tunnels at that time amounted to about 2,500 feet. As to the ore bodies, Mr. Galloway stated that they were of two types, viz.: Fissure-veins in rhyolite; and (2) contact replacement bodies lying between rhyolite and schistose argillite. "In both of these types," he continues, "galena carrying good silver values is the most important ore mineral."

California Mining Co. Will Develop Claims on Bird Creek.

The California Mining Company, with which are associated J. R. Cassin, of Spokane, Wn., president; W. R. Orndorff, of Spokane, Wn., secretary-treasurer; and W. H. Turner, manager, has obtained control of five mineral claims situated on Bird Creek, near Nelson, B.C., and proposes placing the property on a producing basis without loss of time. The development to date consists of two adit tunnels, the lower of No. 3 being in 1,200 feet, No. 2, 170 feet vertically above No. 3 is in 627 feet and ore from No. 1 is stoped to the surface. The vein is reported to be strong and well defined, and development has shown ore for a considerable distance in Nos. 2 and 3 tunnels which will average \$17 a ton in gold. The Athabasca Mill has been leased for the purpose of handling the output.

SATISFACTORY PROCESS EVOLVED FOR TREATING SULLIVAN MINE ORES.

The presence in British Columbia of E. W. Beatty, the newly elected president of the Canadian Pacific Railway, who has been making his first transcontinental tour of inspection, was made the occasion of a formal announcement by J. J. Warren, general manager of the Canadian Consolidated Mining & Smelting Company, that the problem of the treatment of the complex silver-lead-zinc ores of the Sullivan mine at Kimberley, B.C., has been solved by S. G. Blaylock and his metallurgical staff of the Trail Smeltery.

This statement was made in the course of an address delivered after a banquet tendered Mr. Beatty and D. C. Coleman, vice-president of the C.P.R., at Nelson, B.C., by the Associated Boards of Trade of Eastern British Columbia. It is understood that Mr. Warren's announcement means that the metallurgists at Trail have been successful in evolving a method of treatment which will recover the silver, lead and zinc of the Sullivan mine ore, the importance of which will be better appreciated when it is understood that this mine has exceedingly large reserves and at present is the greatest producer of any property shipping to the Trail plant. Mr. Warren also asserted that he believed that the problem of the treatment of the low grade gold-copper ores of the Rossland mines had been solved and that within a short time the Rossland properties of the company would be turning out between 2,000 and 5,000 tons of ore daily. High costs of production, and the fact that the price of gold has not risen to meet it, forced the company to reduce its operations at Rossland to a minimum. Since then it has been developing ore for shipment and working steadily on the problem of discovering a method by which the ore can be more profitably treated.

Prospecting is Necessary.

The mining industry was briefly referred to by S. S. Fowler, of Riondel, B.C., in a brief speech which he directed chiefly to the President of the C.P.R. He said that the Province was credited with having produced \$350,000,000 worth of minerals other than gold, but the important thing was the development of the mines in the future. The greatest duty of the mining community today was to encourage prospecting. Either the old-timers must be brought back or a new class of prospectors developed. "If new ore bodies are not located the District is bound to go back," said Mr. Fowler, who went on to assert that there was no doubt that there was much valuable mineral to be found and developed.

Smelter Charges.

Mr. Warren, who was called on a little later, opened by some complimentary references to Mr. Beatty, and then declared that he felt that he was under suspended sentence when it came to speaking of the Trail smeltery. At best he was "only an executive," but he was blamed when the price of copper went up and when it came down; in fact he seemed to be blamed for a little of everything.

Speaking of the future, he said that he would try to adopt a policy which would make for the development of the province. The smelter endeavored to make its charges fair, but not to give something for nothing. He did not think that would be good for the country, but he would give and do what he considered to be right.

Referring to Schedule B (which is the schedule of

custom ore treatment charges of which there has been considerable criticism), he said that it was intended to be a basis for reasonable charges for the work done by the smelter. He was waiting the decision of the special committee which had the schedule under consideration, with a feeling that all should get together with a view to the development of the country. The smelter had been criticised for treating the ore from the Sullivan mine on a lower schedule than that charges for outside work, but it was forgotten by those responsible that it would be impossible for the smelter to operate without the Sullivan ore.

War Service.

The speaker told of the special operations carried on by the smelter to assist the Allies win the war. The company has saved the British Government over \$6,000,000 on the cost of its zinc alone. In this statement Mr. Warren referred to the installation of Trail of an electrolytical plant for the recovery of zinc, the initial cost of which is understood to have been about \$1,000,000 and which was responsible for turning out large quantities of the metal during the latter years of the great war.

Mr. Warren said he would like to see more co-operation with regard to the development of the Canadian market. Illustrating his point, the speaker told of observations made during a trip to Washington after the United States had entered the war. Mr. Warren had offered to sell lead at about two cents under the price which the American producers were receiving, and as a result was nearly driven out of the city. Recently in Canada the Canadian National Railways sent to Mexico to purchase lead when the smelters had several thousand tons on hand. He said that that sort of thing should be stopped.

Decreasing the Cost of Treatment.

He looked to the future optimistically, however. "We will soon be in a position," he continued, "to treat from 2,000 to 5,000 tons of Sullivan ores every day. S. G. Blaylock and his staff of metallurgists have solved the problem of treating the Sullivan ores at a reasonable price. They also have discovered a new low cost process for the treatment of the low grade Rossland ores. The research department at the smelter is working hard attempting to find ways to reduce the cost of the treatment of British Columbia ores generally and we will reduce Schedule B as soon as possible."

Mining and the C. P. R.

Mr. Beatty has given considerable attention during his tour of this Province to the mining and associated industries. He has visited the Rossland Mines and the Trail Smeltery as well as the West Kootenay Power Company's plant. He also spent a short time at Nanaimo, the coal producing centre of Vancouver Island. Incidentally it may be mentioned that the announcement was made recently that the C.P.R. would proceed with the construction of an extension of the Esquimalt & Nanaimo Ry. from Alberni, the present Island West Coast Terminal of the line, to Great Central Lake. It is possible that this will lead to the development of the Big Interior and Ptarmigan Groups of Claims. They are both low grade copper propositions but, as far as development has gone, show immense deposits, the working of which is held back only by lack of transportation facilities.

THE DOLLY VARDEN MINE.

The position in regard to ownership and operation of the Dolly Varden Mine and its equipment, including the 18 miles of railway from tidewater at Alice Arm to the Mine, has developed in complicity during the past two weeks. Hon. John Oliver, Premier of British Columbia, has been officially notified by the Canadian Government, Ottawa, that it has received an appeal from the Dolly Varden Mining Company for the repeal of the Provincial Legislation under which the Taylor Engineering Company obtains authority to take possession of the property and operate it for the purpose of paying the claims of \$462,000, which the Engineering Company has against the Mining Company, and the justice of which has been upheld by the Legislature. Premier Oliver interprets the notification as merely the extension of usual formal courtesies between the Federal and Provincial Governments. If, however, it means that the Province is expected to enter a defence of its legislation it is another matter, and it is hardly likely that the British Columbia Government will do so. Its position is that the legislation is within its jurisdiction, having to do only with civil and property rights, which are laid down by the British North America Act, as being within provincial purview. Disallowance by the Dominion Government, therefore, would precipitate a more or less bitter struggle and lead to exceedingly strained relations between the two administrations.

Meanwhile the Taylor Engineering Company is proceeding to take over the mine, etc., arrangements being under way for placing the property on a shipping basis, and for the operation of the railway over which the ore, of which a considerable tonnage has been proved by diamond drilling and otherwise, will be transported to the sea. Nor has the matter of water transportation been overlooked.

A new power freighter is being put in commission to carry supplies to Alice Arm. She has a 300-ton deadweight cargo capacity, and will be ready to start on the northern run shortly.

A. J. Taylor, president of the Engineering Concern, states that his plans are all made, that the mine will be re-opened without loss of time, that the railway will be operated, and that it will not be long before ore is shipped. He is confident that it will not be long before returns are received which will permit the payment of wages to those workmen who were employed on the construction of the railroad, and whose claims must, under the legislation referred to, be given first consideration.

Waiting for Concentrator for Rossland Ores.

Alarming reports were circulated recently to the effect that the Rossland mines of the Canadian Consolidated Mining & Smelting Company, as well as the Trail Smeltery, were being closed down. It is true that a considerable body of miners and workmen were released from Rossland, but the statement that it is proposed to cease operations entirely either at the mines mentioned or at Trail is emphatically denied by J. J. Warren, general manager of the company. In a statement explanatory of the situation Mr. Warren said: "We have been obliged temporarily to suspend

shipments of ore from the Rossland mines because we have found it impossible to make ends meet with the prevailing high costs of both labor and material. We expect to resume, however, before the end of June, when the concentrating mill probably will be ready for operation. To continue in the meantime would not only result in financial loss, but in the serious wasting of our substance—in other words our ore reserves—of which there is only one crop. We are still keeping over 100 men at work in the Rossland mines. The resumption of Rossland ore shipments may be affected by the action of the Crow's Nest Coal Miners in deciding to go on strike, thus shutting off our coke supply, as the Rossland ores require a large quantity of coke for reduction.

Pennsylvania coke is now selling at very little above pre-war prices, while Crow's Nest coke commands \$7.71 a ton f.o.b. ovens as against \$4.50 a ton f.o.b. ovens before the war. We expect to be able to maintain our smelting operations, which have been continuous for over twenty years, excepting the short periods when our men or the coal miners took a holiday. It would be idle to pretend, though, that we are not passing through a very critical period. There has been, however, some little improvement in the lead situation—not so much in price as in there being a little better demand for the metal. Mexican lead is our chief difficulty. It was offered recently at less than 4c a pound f.o.b. Montreal in bond. We appreciate the co-operation of our men at this trying time, which cannot last for ever.

Outside reports, unauthoritative in character, are to the effect that the number of men let out at Rossland is considerable, and that, for the most part, they are men who have given expression of their support of the "One Big Union" idea. It also is stated that some 75 workmen have been discharged at the Trail Smelter. Mr. Warren, however, is credited with the statement that those who have been so released need not go idle, there being plenty of employment available for them at the Sullivan Mine, which is being developed on a large scale, and from which shipments of ore are to be increased.

The Rock Candy Mine.

The development of the fluorspar property, known as the Rock Candy, and situated near Grand Fork, B.C., by the Canadian Consolidated Mining & Smelting Company, is being vigorously prosecuted. J. J. Warren, general manager; M. A. Archibald, consulting mining engineer, and other officials of the company, recently inspected this property. After looking over the mining operations, they visited Lynch Creek, when the concentrating mill, newly installed, was in operation for the first time. The tramline, which will carry ore from the mine to the mill, also was demonstrated. The bunkers at the mill already are filled. The plant and the general equipment functioned satisfactorily, and everything is ready for work. The spur connecting the Kettle Valley Ry. with the concentrating mill is not yet quite completed, but the steel is on the ground, and will be laid without loss of time. As soon as this detail has been attended to operations will start and be carried on continuously.

BRITISH COLUMBIA

The Mineral Province of Western Canada

Has produced Minerals valued as follows: Placer Gold, \$75,116,103; Lode Gold, \$93,717,974; Silver, \$43,623,761; Lead, \$39,366,144; Copper, \$130,597,620; Other Metals (Zinc, Iron, etc.), \$10,933,466; Coal and Coke, \$174,313,658; Building Stone, Brick, Cement, etc., \$27,902,381; making its Mineral Production to the end of 1917 show an

Aggregate Value of \$595,571,107

The substantial progress of the Mining Industry of this Province is strikingly exhibited in the following figures, which show the value of production for successive five-year periods: For all years to 1895, inclusive, \$94,547,241; for five years, 1896-1900, \$57,605,967; for five years, 1901-1905, \$96,509,968; for five years, 1906-1910, \$125,534,474; for five years, 1911-1915, \$142,072,603; for the year 1916, \$42,290,462; for the year 1917, \$37,010,392.

Production During last ten years, \$296,044,925

Lode-mining has only been in progress for about twenty years, and not 20 per cent. of the Province has been even prospected; 300,000 square miles of unexplored mineral bearing land are open for prospecting.

The Mining Laws of this Province are more liberal and the fees lower than those of any other Province in the Dominion, or any Colony in the British Empire.

Mineral locations are granted to discoverers for nominal fees.

Absolute Titles are obtained by developing such properties, the security of which is guaranteed by Crown Grants.

Full information, together with Mining Reports and Maps, may be obtained gratis by addressing

THE HON. THE MINISTER OF MINES
VICTORIA, British Columbia

Complete Tie-up in Crowsnest Section.

With reference to the strike of coal miners in District 18, U.M.W. of A. (Eastern B. C. and the Province of Alberta), the situation has developed since my last letter into a complete tie-up in the Crowsnest Pass Section. The mines are being kept clear of water only by the efforts of the superintendent and a few officials. The City of Fernie, which is dependent on the colliery power plant for its light, is in darkness. The output of coal, of course, has ceased, and the production of coke, as a consequence, also has stopped. The latter is likely to have a very serious effect industrially if it continues. The Trail smelter is very largely dependent on the Crowsnest for its coke. Recently a considerable body of men was discharged from the Rossland mines, which are operated by the Consolidated Mining & Smelting Company, and Mr. J. J. Warren, the company's manager, made the statement that the resumption of operations might depend on the action of the coal miners, as without coke the ore of Rossland could not be treated.

In Alberta the position is much the same generally speaking. From Lethbridge comes the report that the mine workers as a body are practically without funds. Before the strike there was about \$10,000 in the union's treasury. Therefore, if the strike is continued, the suffering in labor's ranks will be severe. The Lethbridge City Mine is being operated because the Great War Veterans who are helping to man the mine insist that public utilities be maintained. Lethbridge City Power House, therefore, is supplied with fuel.

From Drumheller, Alberta, word is received that, although the strike of coal miners is general in the

valley, the Rosedale mine, which is operated by Mr. Frank Moodie, has resumed work with a full crew of men. It is stated there that, while foreign workers are fairly well supplied with savings to continue the strike, the English speaking miners, who spend more money, will shortly be without resources. The strikers are still trying to persuade the engineers to join them so that the mines may be flooded and made inoperative for three or four months. The latter, however, evince a determination to work.

FIRE BOSSES ON DUTY AT FERNIE.

In Fernie District the fire bosses, on a strike vote being taken, decided to remain on duty as in the past to carry out inspection duties and guard against irrecoverable damage within the mines. They state the mine management requested them to do work which, in their opinion, carried them outside their duties, and they refused, whereupon their resignations were demanded. With two reported exceptions not a wheel is being turned at Coal Creek. The exceptions are the pumps in B. North Mine, which mine would become inundated within a period of 48 hours if they were suspended, and the fans in B. North and No. 3 Mines, their gaseous nature of these collieries making it imperative to continue the operation of the ventilating systems. Caring for and feeding of the mine horses and other absolutely necessary work is being carried on by the pit bosses, and clerical and official help still on duty. As near as can be estimated there are between 700 and 800 employees directly affected at Coal Creek; at Michel about 500, and at Corbin less than 100.

Settlers' Rights.

A largely attended meeting was held recently at Nanaimo, B.C., to protest against the action of the Lieut. Governor in withholding his assent to the legislation passed by the Provincial Legislature in 1918, giving settlers within the E. & N. Ry. Belt an opportunity to claim the coal rights on their property. Addresses were delivered by Hon. Wm. Sloan, Minister of Mines, J. H. Hawthornthwaite, M.P.P., and Harvey Murphy, the latter being president of the Nanaimo Board of Trade. The former went fully into the history of the settlers' struggle for the coal on their property, and argued that they were asking no more than justice, which should be accorded. Messrs. Hawthornthwaite and Murphy encouraged the claimants to persevere, assuring them that, with right on their side, they would be successful. The following resolution was enthusiastically carried:

"That this meeting emphatically protests against the action of the Lieutenant-Governor in refusing his assent to the Settlers' Rights Bill, and demands that consideration of assent be given forthwith.

"And be it further resolved that this meeting protest against any invasion of recognized provincial rights."

Reserve Mine Closed.

The Reserve Mine, Canadian Western Fuel Company, which is situated near Nanaimo, B.C., has been closed indefinitely. Thus some 200 underground workers and 60 or 70 surface workers are out of employment. The output of the Reserve Mine has been maintained for years at about 10,000 or 11,000 tons of coal a month. The Canadian Western Fuel Company now is operating No. 1 Mine, Nanaimo, with a production of about 30,000 tons of coal a month, and the Harewood Mine, which has been producing in the neighborhood of 22,000 tons a month. The Wake-siah Mine, also near Nanaimo, is still in the development stage.

INCREASED DEMAND FOR GOLD AND SILVER.

The war caused a universal absorption of the available gold supply for credit purposes. It went mostly into the great state banks of issues and national treasuries of the world. It came mostly out of circulation. The vacuum so created, and more, was filled by paper emissions, of more or less doubtful redeemability.

But the world cannot remain satisfied to have billions upon billions of paper circulating as money. The world's bank deposits doubled during the war, going from \$25,000,000,000 to \$50,000,000,000. It is estimated that note currency increased \$100,000,000. In Germany alone there is \$7,000,000,000 of new bank notes brought into being on account of the war.

Hence, there will be an increased demand for metallic money, gold and silver, for years to come to supplant, in a measure, this paper circulation. Gold and silver mining will be an economic urgency.

But the production of gold has certain limitations. It is only found in paying quantities in certain quarters of the globe. And its price is fixed according to the monetary standard.

It is silver, therefore, that will be relied upon to a great extent, to fill the necessities of coinage. Here there can be extended a premium to encourage production. The United States government has done so

by establishing a minimum price of \$1 an ounce for silver for an indefinite period.

Over the period of the war the total stock of gold money in the world increased about \$1,575,000,000. But in that period the stock of gold in the state banks and treasuries of the world increased approximately \$3,125,000,000, or nearly twice as much. The difference is the result of that striking development of the war, namely, the withdrawal of gold from circulation and its concentration under the control of government institutions. The money came partly out of the private banks, but mainly out of the pockets of the people. These figures are based upon returns of the world's output, with due allowance for the gold absorbed in the industries and by India and Egypt.

Gold Circulation \$1,500,000,000 Smaller.

Thus, the world's gold circulation, in spite of the increase in the general supply, is to-day smaller by over \$1,500,000,000 than it was before the war.

At the end of 1913, 63 per cent of the total stock of gold money was in state banks and treasuries and 37 per cent in the hands of private banks, and the public. On June 30, 1918, the proportions were 85 per cent and 15 per cent respectively.

The proportion in the hands of the public, apart from private banks, before the war, was estimated by the Manchester Guardian of England to have been probably about 30 per cent, mainly in France, Germany, United States, United Kingdom and Russia; while to-day it must be far smaller than the 15 per cent mentioned above. "It may be," said this authority, "that for some years to come gold will not be allowed to circulate freely in European countries for internal purposes, for the amount of gold required by the central banks as a basis of their note circulation and the structure of credit it will have to support will be very great."

It is to be noted along this line that the British currency report issued late last year recommended against complete return to the internal circulation of gold coin that obtained in England before the war.

Before the war the United States held about 25 per cent of the world's stock of gold. To-day it holds 33 per cent.—Boston News Bureau.

An article on the "Efficient Compression of Air" in "Mining & Scientific Press," suggests for the purpose of detecting leaks in compressed-air transmission lines the practice of an Illinois man "who, at regular intervals, puts essence of 'peppermint into the air system, and then has all the pipes 'inspected. Leaks are revealed by the odor.'" We can imagine some entertaining possibilities if this method were tried in some collieries our readers know of.

The Technical Supplement to the review of the foreign press, which is issued fortnightly by the British War Office, reproduces a report from the Austrian Chemical Journal that the Hungarian Department of Agriculture has decided to transform the Magyarovar Explosives Works into a factory for the manufacture of artificial manures. The note is headed "From Explosives to Manures." Without desiring to accuse the War Office of levity, is this heading a gentle hint of the modern expression of the ancient formula "swords to ploughshares and spears to pruning hooks"?