

CANADIAN MINING JOURNAL

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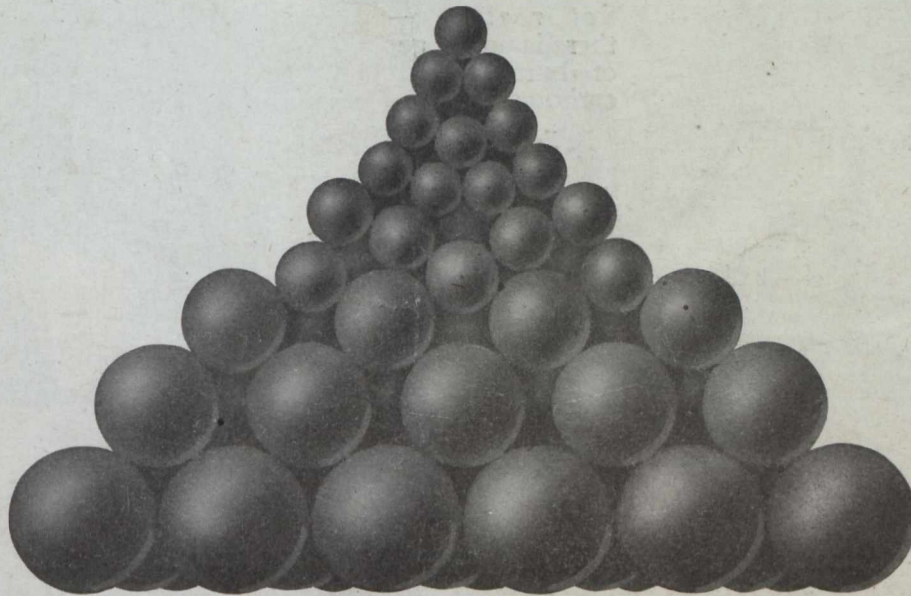
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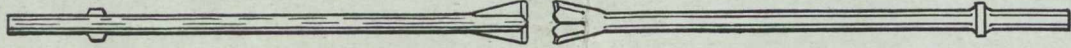
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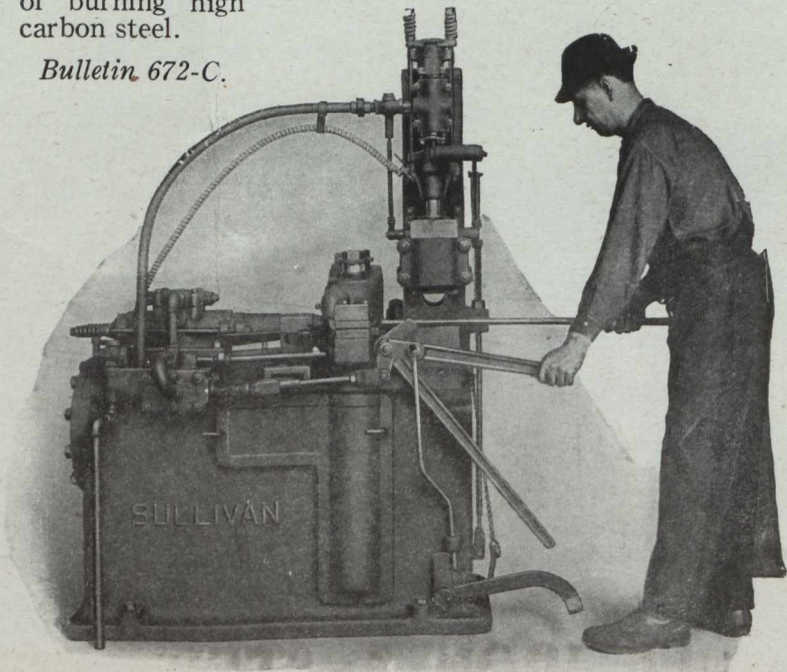
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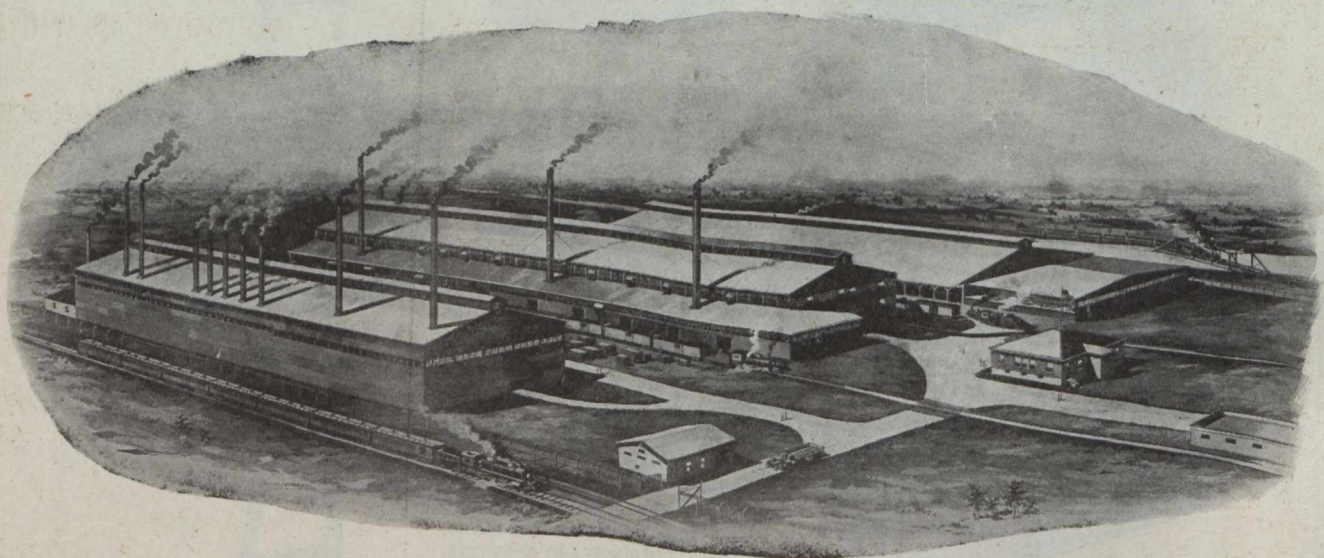
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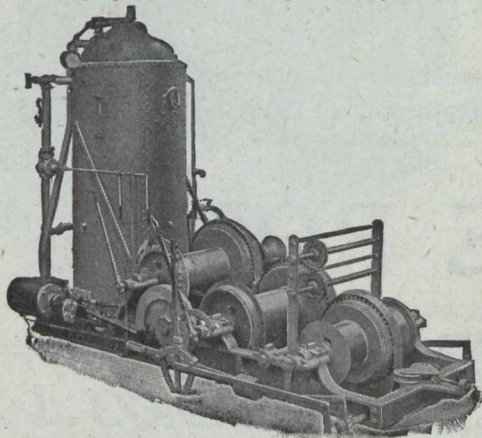
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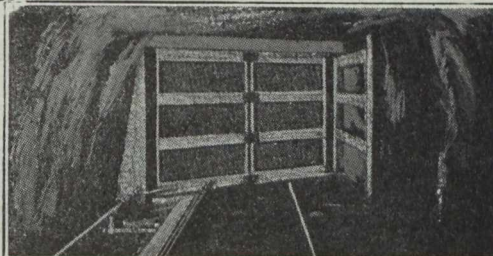
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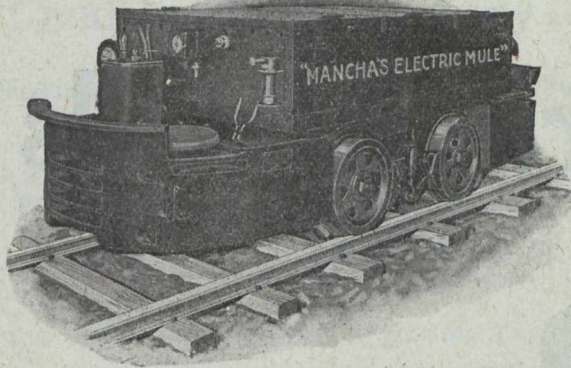
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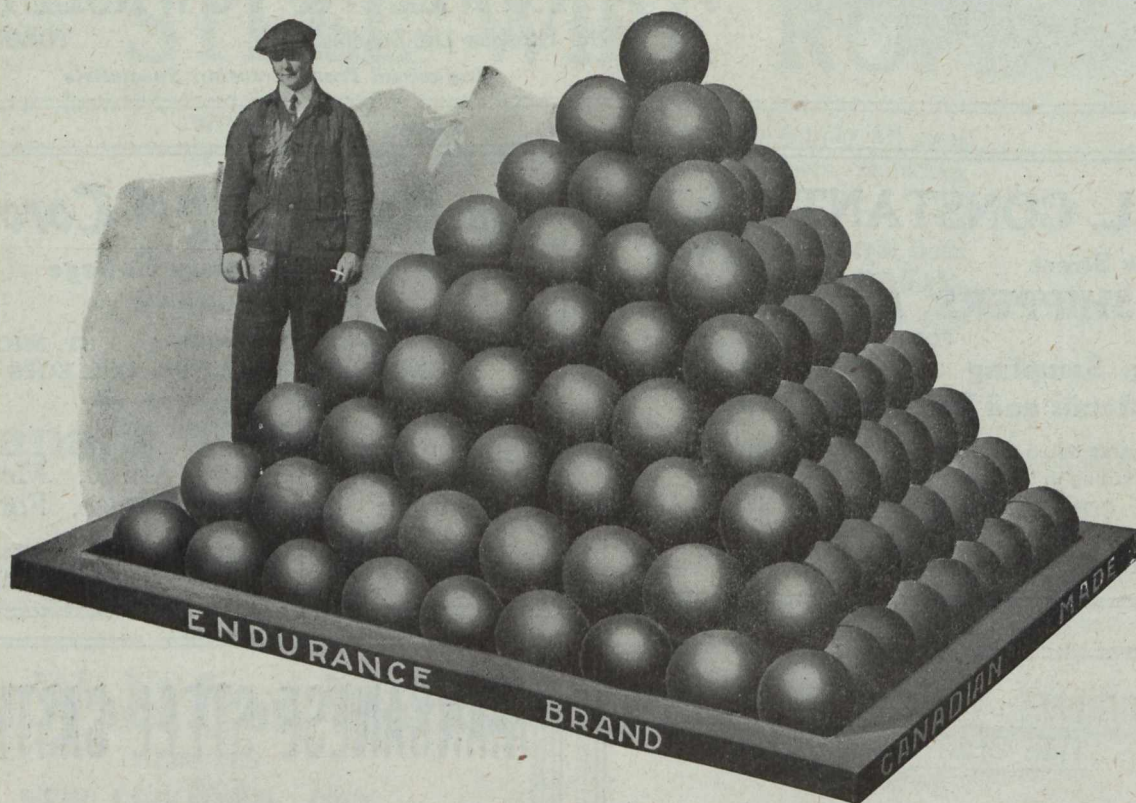
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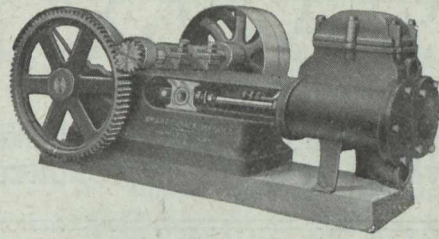
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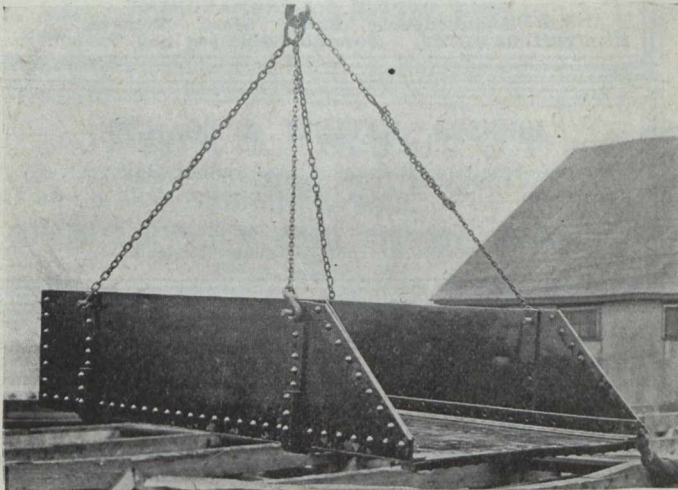
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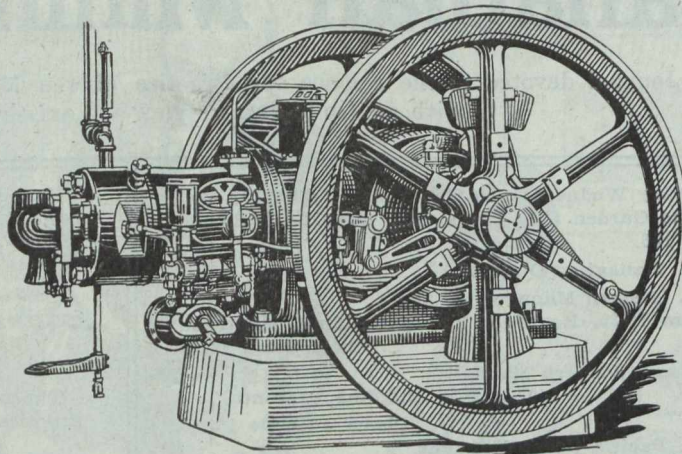
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EDITORIAL

COBALT STRIKE—STATEMENT OF THE MINE MANAGERS.

At the request of the President of the Temiskaming Mine Managers' Association we are pleased to publish in this issue a statement outlining the position of the Association in reply to the statement of the Minister of Labour published in the "Journal" of August 13th.

THE WIDER OUTLOOK OF THE U.S. COAL TRADE.

A significant innovation in our United States contemporary "Coal Age" is a page devoted to "Foreign Markets and Export News" which contains news relating to the coal requirements of such widely scattered countries as Switzerland, South Africa, New South Wales, South China and Russia. This is one of the many indications that our United States friends have apprehended the opportunity for export coal business that now presents itself through the paralysis, and in some instances the "hari-kari" of the European coal-trade.

In Canada, unfortunately, it will not be time for us to talk about exporting coal until we can supply our own requirements, or more correctly put, until we do supply our own requirements. That we *can* do this is not a matter for debate.

For comparison, one may note that South Africa has increased its coal production from 8,801,000 tons in 1913 to 10,383,000 tons in 1917, and that Japan's coal production has increased from 21,083,000 tons in 1913 to 27,500,000 tons in 1918, and it may be further remarked that Japanese coal is produced under conditions of great physical difficulty.

Compare the area of Japan and its coal resources with the area of Canada and our much larger coal resources, and it is hard to excuse a coal production in Canada of around 14,000,000 tons, particularly when Canada uses 35,000,000 tons annually.

THE FIVE-DAY WEEK FOR COAL-MINERS.

Old-fashioned folk, who in the erring and thoughtless days of their adolescence and later youth, absorbed the teachings of Poor Richard's Almanack, of Smile's "Self-Help," Emerson's "Essay on Self Reliance," Todd's "Self-Culture," Solomon's Proverbs—yes, and the Ten Commandments also, and later on, when contact with men and things brought disillusion, consoled themselves with the mild scepticism of Ecclesiasticus and Omar, do not quite know what to make of this present-day world, when work is regarded as a thing abhorred, and unoccupied leisure appears to be the desired haven

of all mankind. Unoccupied leisure for a selected number that is.

The worker who desires a free Saturday and Sunday, for example, has no compunction in working the tram employees and restaurant hands seven days a week and all holidays. His idea of rest is making someone else work.

The old-fashioned idea that production could only be obtained by hard work seems to have suffered eclipse, but there must be some truth in the ancient superstition, because Lloyd George has recently stated that the reduction of hours of labour in Britain has reduced the production almost in the same mathematical proportion. The Premier, who knows as much about work as any man, did not attempt to explain how the same revenue could be produced by a decreased output, in fact he was unkind enough to say it could not be done. He said: "We shall never improve matters until we increase production, or we shall be driven later to reduce even lower the standard of living in Britain. There is no other alternative except quitting the country for which we fought for four years."

One is surprised that Mr. Lloyd George should so revamp the primeval curse, and intimate that man has to earn his labour by the sweat of his brow. The phrase is not even polite English in these days, and yet it is a most accurate description of one of the eternal verities.

The feature that saves us from the worst that can be done by the cloud-capped amateur reformers who would smash the present scheme of things and re-fashion it nearer their heart's desire, is that many mooted changes ignore the domestic relations of men as much as they ignore the immutable principles of economics. Labour leaders forget that idleness in itself is a distressing state to all normal men, and they also forget that man is a monogamous being, and that in civilized countries marriage is a partnership involving a fair apportionment of human labour.

It may be permitted, without impertinence or any desire to interfere with private affairs, what the miner's womenkind will say to a five-day week, with, of course, the inevitable five days' earnings that will accompany such an arrangement. By no method known to man can five days' work produce as much coal as six days' work.

As the initiated know, Saturday morning, in ordinary households, is the time when men are not desired around the house, unless they desire to help in the domestic work. How will a healthy man occupy himself on Saturday morning? In the summer he can find occupation pleasant enough, but in Cape Breton the summer is all too brief.

There are no reading rooms, nor social clubs at any of the Nova Scotia collieries. There are not even the social facilities afforded by saloons, for theoretically the sale of intoxicating liquor is forbidden in Nova Scotia. At collieries it is twice forbidden, first by the Coal Mines Regulation Act, and secondly by all the penalties of the Nova Scotia Temperance Act, but, as everyone knows, liquor is sold in large quantities, with all the dire results that follow "blind pigs" and illegal dives, and the kind of prohibition that does not prohibit.

Those who preach "up-lift" and ethics that ignore the habits of the average adult, will say that there are many useful ways in which men can employ their leisure, and so there are, but it will not work that way.

The miner's leisure—if he takes all Saturday off—is likely to prove a greater problem to himself than it is to others, for miners are not given to mere loafing. Very few men can loaf—and be happy. And no good can come of a scheme that will make additional work for others, and will at the same time reduce the miner's output, his earnings, and, as seems likely, his domestic peace.

SICKNESS RELIEF SOCIETIES.

The announcement that the mining companies in the Poreupine District contemplate forming a society for the relief of loss of earnings among the mine-workers arising from sickness and non-occupational disability, shows a proper appreciation on the part of the mine managers of the real necessities of their employees.

The Workmen's Compensation Act provides relief in cases of accident arising out of employment risks, but statistics show that the amount of lost earning power caused by non-occupational disability is only half that caused by occupational accident. While the miner lives a healthy life, as vital statistics prove quite conclusively, there are certain diseases to which he is unusually exposed, and in no occupation is there so indeterminate a line of demarcation between occupational and non-occupational disability. This "shadow-line," as it is called by those who have specialised in insurance and accident statistics, affords much scope for malingering, as it also, in many cases, has worked undoubted hardships to men whose disability was obscure in origin or in symptoms.

The miner needs insurance against sickness just twice as badly as he needs insurance against accident, and no better way has yet been devised than that of the mutual benefit association such as is proposed at Poreupine.

The knowledge that some income will be forthcoming in the event of sickness often prevents sickness by lessening mental anxiety, and it certainly lessens the number of compensation claims. The mine owners themselves benefit largely by the institution of a mutual benefit association, as where the mine-owner is at once paymaster, landlord and general provider for an isolat-

ed mining-camp, he must of necessity help his workmen when they are disabled by sickness, even were he not possessed of the ordinary compassion of average men. All mine managers know what long sickness of workmen occasions in the matter of private benevolence, but they do not talk about it.

No proposal that has been made in the North Country promises so much in the way of real co-operation between employer and employee, or will tend to such comfortable relations as the inauguration of a really adequate and permanent system of sickness relief in the mining camps. It is essential, however, to the success of the proposal that the miners should themselves contribute the greater part of the fund required out of their own pockets, and that they should accept the full share of responsibility of management and supervision of the undertaking that their proportionate contribution requires.

THE FUTURE OF THE BRITISH COLLIERIES.

Premier Lloyd George has announced that the Cabinet has rejected the recommendation of the Sankey Report for the nationalization of the coal industry, but has accepted the principle of acquisition of the mineral rights by the State, and a measure of public control over the coal trade, but not so extended as to kill the healthful stimulus of private enterprise. The Government's policy, therefore, follows very closely the recommendations made by Sir Arthur Duckham, Director of Aircraft Production, and a Government nominee on the Coal Commission. The text of the Duckham report will be found on page 649 of this issue.

One of the very curious reasons advanced by Justice Sankey in favour of nationalization of the coal mines was that the miners refused to work for the colliery owners, and that he could see no prospect of harmony unless the miners worked for some other body of persons. Like many other persons, with smaller mental capacity than a Chief Justice, he suggested the Government might try its hand at the difficult task of raising wages and at the same time keeping down the price of coal, and of increasing coal output while simultaneously decreasing the hours of labour.

The Yorkshire strike was cited by the Premier as evidence that Government control did not necessarily mean harmony.

By accepting the principle of state ownership of minerals, and taking the responsibility of "supervising and controlling all mineral rights throughout Great Britain, so as to ensure the proper working of all minerals," Mr. Lloyd George has announced that the British Government considers the coal-seams of Britain as forming part of the public domain, with all the implications that such a momentous decision carries with it.

By rejecting the nationalization proposal, the Premier has announced that the British Government does not accede to state control of labour.

From these two things it may be deduced that the

British Government has awakened to the dangers of confusing industrial conditions with politics, and those who wish to see the rights of all the people upheld and preserved, and deny the right of any one class of the population to demand special treatment and extraordinary political privileges irrespective of the remainder of the population, will be encouraged by the clear-cut distinction made by the Premier.

It is fortunate that the demand for unprecedentedly preferential treatment should have been made by the coal workers, because coal is the basis of Britain's industrial fabric, and there is no man so poor or insignificant in Britain but his pocket has been touched and his comfort threatened by the overweening demands of the miners' leaders. The miners do not seem to have regarded themselves as being members of the body politic, but as being deserving of peculiar honour and exclusive privilege. The supreme importance of coal in the prosecution of the war, and the all-important asset of coal in national industry is perhaps responsible for this misconception of the miner's political position by himself, and the acceptance of this high valuation by others, but when the President of the Board of Trade announced recently an increase of six shillings per ton on the selling price of coal, the country saw that it was paying too dearly for special privilege attaching to one selected class of workers.

The acquisition by the State of the coal seams is to some extent but a rectification of past mistakes. The inheritance of large landed estates from ancestors who lived before the invention of the steam engine made coal a valuable mineral is not a subject for profitable debate. The point of view will depend largely upon one's ancestors. But the Enclosures Act of 1790, which conveyed large tracts of common lands to the lords of the manor grievously erred in that it did not reserve to the Crown the underlying mineral rights. In this respect the State in deciding to acquire the minerals will re-enter into possession of an asset it should never have given away to private owners.

Those who have had practical acquaintance with the management of large coal properties will be interested in Sir Arthur Duckham's recommendations for the amalgamation of all mining properties in specified districts for the purpose of obtaining the best economies and efficiencies in the winning and working of coal, particularly to ensure the most efficient draining and pumping, the most rapid transport of the coal to the surface and the miner to his work; the obtaining and distribution of power from one centre, and the prevention of waste of coal by artificial barriers and interfering leases and way-leaves.

Another recommendation in the Duckham Report which applies especially to coal-mining conditions in Canada, is that "the general extension of multiple shifts, as the most ready means of increasing output, "reducing costs, and improving wages to the workpeople as a whole should be immediately considered by

"a joint Committee of the Government, owners and "miners."

Our readers will recollect that the "Journal" has on a number of occasions made a similar recommendation in order to overcome the decreased output, increased costs and smaller wages which must necessarily accompany the reduced hours of labour recently adopted in Canadian collieries.

U. M. W. DISTRICT NO. 18 RESUMING WORK.

It is reported from Ottawa that sixty per cent of the collieries in the Fernie and Edmonton fields have resumed work. This news, which is a consequence of the repudiation of the O.B.U. movement by the miners, is good news. Few coal fields have been so wantonly hindered in business expansion by continued strikes as District No. 18, and it is to be hoped that a longer period of uninterrupted work than has been usual is now commencing.

PERSONALS.

J. R. McNeill, for the past eight years manager of No. 11 Colliery of the Dominion Coal Company, has resigned his position, and will take the managership of No. 3 Colliery (Florence), of the Nova Scotia Steel & Coal Co.

W. R. MacDonald, manager of No. 6 Colliery of the Dominion Coal Company, has been appointed Safety Inspector. T. Chew, underground manager of Dominion No. 2 Colliery, has been appointed manager of No. 6.

Mr. C. H. Hitchcock is at West Shiningtree.

Mr. Bennett is at the Gosselin property, Shiningtree.

Mr. R. Pearce, editor of the "Northern Miner" has been visiting the mines of the Wasapika gold area.

Mr. H. S. Robinson, formerly superintendent at the Trethewey mine is now at the McIntyre gold mine. He recently returned to Canada after serving in the U. S. army.

Mr. Evered, manager of the Davidson gold mine has returned to Porcupine after visiting the Herrick, Wasapika and West Tree properties in the Wasapika gold area.

Mr. A. H. Brown, mines inspector, recently visited the Wasapika gold area.

Mr. Geo. R. Rogers, president of Wasapika Gold Mines, Ltd., is at the property.

Major H. Whittingham has been demobilized, and has returned to Sardinia as superintendent of the Gennamaru mines. His address is Ingurtosu, Arbus, Sardinia. Some years ago Major Whittingham was on the staff of the Nipissing Mining Company, at Cobalt.

Mr. H. C. Carlisle who was in charge of the operations of the Mandy & Co., in Northern Manitoba, is now with the Tonopah Mining Company at Tonopah, Nevada.

Mr. William J. Hamilton, of the Cerro de Pasco Copper Corporation of Peru, is visiting his home at Westmount, Quebec.

A STATEMENT FROM THE MINE MANAGERS ON THE PRESENT STRIKE CONDITIONS IN COBALT, ONTARIO.

In the words of the Minister of Labour, the present labour dispute in Cobalt has narrowed down to a positive difference of opinion as to whether or not the local branch of the Western Federation of Miners, now known as I.U. of M.M. and S.W. should be recognized. On one side the Union officials and the Minister of Labour insists that it must be recognized, and on the other side the Mine Managements are just as positive in their determination that the Union will not be recognized until at least the laws of Canada are so amended as to make such recognition obligatory.

The criticism heard on the street and apparently emanating from those who may be described as the agitating minority is that the Mine Managers have taken an arrogant stand and have refused to discuss the question of recognition or any other points that may be made an issue with the men themselves. We believe that no mine manager has ever refused to discuss any question with either his men individually or with a committee of his own men elected by his own employees. We believe that in all cases where a request was made to meet and discuss matters, and in fact where the desire was merely indicated, the managers have always willingly and gladly discussed the points thus raised in a friendly and sympathetic spirit. On this basis the charge, namely that the managers have refused to meet their own men, falls of its own weight and the fact that the men of Cobalt did not ask to discuss the questions involved in the present controversy with their managers shows that they were entirely indifferent to the results contingent upon a strike, or that they were prevented from so discussing these questions by the Officials of the Miners' Union.

For the past twelve years there have been strikes threatened by the same organization. Strike votes have been taken and a large majority in favor of strike announced, but for some reason or other the officials in whose hands was placed the authority to take action or not, as they saw best, were not inclined to put the feeling apparently expressed in that strike vote to a test.

At the time the Royal Commission was appointed to investigate and advise on industrial conditions, the membership in the local Union was something less than twenty-five per cent. of the men employed in Cobalt. With the appointment of this commission, a movement was put under way to increase the membership and at the time the Commission visited Cobalt in May of this year, probably fifty per cent. of the employees were paying dues to the Union. In the wake of the Commission as they travelled East across the continent from the Pacific Coast, strikes in many large centres developed, led by men of extreme Socialistic tendencies, culminating in an attempt to establish Soviet rule in the city of Winnipeg. (Later Queen and Dunn, leaders in this same strike at Winnipeg, were invited to Cobalt, met by Union officials and on the night of July 18th were escorted by Union members to the rink, accompanied by a band, thus being honored as no other visitors to the Union had ever been honored before.)

Taking advantage of the general feeling of unrest in industrial localities elsewhere, the agitating minority of the local Union created a manufactured situation in Cobalt and as a result an ultimatum, with a

time limit of forty-eight hours, was served upon the Cobalt mines. The Union demanded a largely increased wage, a forty-four hour week with forty-eight hours pay, time and a half for overtime, double time on Sundays and legal holidays, with recognition of the Western Federation of Miners, and the check-off system. The latter it might be explained means that the mines would become responsible to the Union for all dues assessed on the men and that no man would be allowed to work on the properties who was not a member of this Union and in good standing, or in other words, the mines would thereafter operate on a closed shop basis.

No response in reply to this ultimatum having been received by the Union, they advised the Minister of Labour that we refused to treat with them and received a reply from the Minister asking in a most peremptory manner that the Union furnish him the names of those Companies that had refused to treat with their men.

This was on the eve of the taking of a strike vote by the men and the Minister's request was conspicuously posted at the polls.

The plain inference in this was that he would force any such companies to treat with the Union irrespective of any laws then existing in Canada, in all of which his attitude was not unlike that of many Union agitators.

A strike vote was then taken and it followed that under such circumstances a large majority for a strike should be officially announced.

The Department of Labour at Ottawa was advised concerning conditions, presumably by the local Union and a representative of that Department, at the request of the Minister of Labour, visited Cobalt and made a careful study of the situation. We have reason to believe that this report confirmed the position taken by the mine managers and believe that had the Minister of Labour taken an entirely neutral position in this controversy, that report would have been published.

At the request of Mr. Quirk, referred to above as representative of the Department of Labour, we confirmed our verbal statements to him in a letter addressed to the Minister of Labour under date of June 7th.

In this letter we pointed out that we were already practising collective bargaining in dealing at all times with groups or committees of our own men, but that we did not concede collective bargaining if such bargaining was of necessity through the Western Federation of Miners. We pointed out that the accusation of discrimination as brought against us by the Union was without foundation, since there was no disposition on the part of any management to refuse an applicant for work because he was a member of the Western Federation or any other Union. We maintained that living conditions in this camp, educational facilities, hospitals and recreation were perhaps better than in any other Canadian mining camp; that through the means of a bonus based on the price of silver, the wages were higher than that of any other camp and that the average wage in the largest mine operating in Cobalt was then \$4.35 per shift, which has since been increased by an additional bonus of twenty-five cents, making that average at the time the strike took place \$4.60 per shift.

The Minister of Labour was furnished with many decisions from Supreme Courts, Coroners' Juries, Royal Commissions, various Governors, and President Roosevelt, all dealing directly with the Western Federation of Miners and Charles Moyer, its President,

showing conclusively that the history of the Western Federation of Miners is a record of intimidation and in many cases incendiarism and murder. In reply, on July 16th, the Minister of Labour disregarded all these authorities, and advised us to follow the suit of one Western operator, who had "every respect" for Mr. Moyer. Moyer's record is well known, not only his past, which the Minister of Labour would forget, but also his more recent affairs. In addition to the manner in which he carried on the Michigan strike in 1913-14, were his strikes in Arizona during a time when the United States Government was calling for a steady output of minerals for war purposes; his personal incitement of Mexican labor at the border-line camps in Arizona in 1916 during the time of the Villa raids. Yet this is the man, Charles Moyer, still surrounded by the system and organization which he knows so well how to manipulate, one of the organizers and first executives of the I.W.W., that the Minister of Labour would force us to recognize and consult, in the belief that unionism of any kind is better than industrial peace and contentment of employees.

Since that time the Minister has seen fit to give to the Canadian Press a statement to the effect that while the history of this organization prior to the presidency of Mr. Moyer may not have been above reproach, that under his guidance their methods and policy were changed and that to-day the organization is beyond serious criticism.

To confirm his first statement, let us quote some extracts from report of the Royal Canadian Commission—Industrial Disputes 1903, made by the Chief Justice of British Columbia, and Rev. Elliott Rose.

"It is obviously against the public interest that any body of Canadian workmen should be subject to be called out on strike by a foreign authority over whom neither our legislatures nor courts can exercise any control, and that whether they have any grievances against their employers or not. **Whether the wheels of Canadian industry shall run or shall rust ought not to depend upon the decrees of a Secret Council at Denver.** With regard to the organization we think

They ought to be specially declared to be illegal, as their leaders have shown that they care nothing about the obligation of contracts or about the interests of their employers, against whom they are ever fomenting discontent.

That they ignore the constitution and rules of their own organization whenever it suits them to do so.

That they at all times preach the doctrines of confiscation of property without compensation.

That society is divided into two classes, the toilers and the spoilers.

That they justify the use of the boycott and the sympathetic strike.

That they do not disprove of violence and intimidation.

That they are wholly indifferent to the loss and damage that they inflict upon the public, and

That they recklessly allow suffering and privation to befall the families of their misguided followers with regard to whom they are constantly guilty of deception and concealment."

To disprove his second statement and to show that under the leadership of President Moyer their methods have not changed and that violence and intimidation are still their ready weapons, we quote as follows from a decision handed down by the Supreme Court of Michigan in connection with the strike that took place at Calumet during the latter part of 1913 and the early part of 1914. The case concerned the Western Federation of Miners as one of several defendants.

"The affidavits, 84 in number, are freighted with narratives of rioting acts of violence, threats, insults, and intimidation of men, women, and children, too numerous to attempt to repeat here, fully substantiating and showing continuation of the unlawful conduct by Defendants. The affidavits are

not only made by employees of complainants and their families, but by others,—officials and private citizens—in many walks of life. They tell of strikers, members of defendant federation and their sympathizers, parading with noise, and insults, and threats, attacking, assaulting, etc. Threatening violence not only to themselves but to their families, to kill, to dynamite, and blow up their homes. Defying the civil authorities, resisting and assaulting officers, of resort to firearms in which employees of complainants, and others were wounded, and other overt acts of lawlessness, disorder, and violence, clearly substantiating the allegations in complainant's bill, and fairly indicating concerted action on the part of defendants to promote the strike by an aggressive policy of force and intimidation."

On July 1st the Minister wrote suggesting that a committee of the men elected from each mine should meet the Mine Managers with a view to conciliation, and crystallized the situation as he saw it in the following words:—"It would appear that the real dispute existing is not so much one of wages but rather a question of the recognition of the Miners' Union." On July 2nd we received a letter from the local Union reading in part as follows:—

"We further accept his suggestion to have a representative of the employees of each mine in the Cobalt camp, also of the Northern Ontario Light and Power Company, participate in this meeting, and without executive committee to represent the Mine Workers' side of the case. The employees of each company to select their representative.

It is to be noted here that the Union did not accept the Minister's suggestion but insisted on injecting their own executive committee into any such conference.

Replying to the Minister's letter of July 1st we regretted that previous correspondence had not clearly conveyed to the Minister our attitude regarding the Western Federation of Miners and pointing out that he could not expect, having consideration for information previously supplied, the employers of labour and the non-union workers would be contented under the dictation and at the mercy of men of the stamp of Charles Moyer, Jas. Simpson and the Rev. Ivens. We further stated as follows—"We cannot accept your suggestion that we meet a committee made up of representatives from each mine for the reason that the Union, through its organization, would be able to elect its own members to the practical elimination of the non-union men and the committee would be in fact a Western Federation committee. Negotiations with such a committee would be useless."

We with all respect decline to join in a request for a Board of Conciliation since in the words of the Minister himself, the only point to be considered would be the recognition of the Western Federation of Miners, which we would not concede and the result could only mean a continued unsettled labour situation.

On July 14th we answered a wire from the Minister reading as follows:—

"Your letter 10th received this morning. After consultation with Prime Minister it is deemed desirable that delegation representing the Temiskaming Mine Managers' Association should come to Ottawa for consultation with some members of the Government on Wednesday morning. The delegation is invited to meet the undersigned at the Department of Labour at 9.30 o'clock Wednesday for preliminary discussion prior to meeting Prime Minister and other members of the Government. The question at issue is one concerning which the Peace Conference itself has gone on record and it has therefore become a matter of international policy, hence the importance of a conference to discuss the matter. Please advise if invitation for Wednesday is accepted."

Mr. McGuire, local chief agitator for the Western Federation of Miners had been in Ottawa in close consultation with the Minister of Labour for some time and this, to our mind, was clearly a plan of the

Minister's whereby we would willingly or otherwise be forced into a discussion of the situation with Mr. McGuire and other members of the Union. Moreover, it is apparent through evidence previously presented in this statement that the one and only question open for discussion at such a conference would be recognition of the Western Federation. This we had repeatedly and in all seriousness assured the Department of Labour we could not concede, for reasons above given, and we felt that, to take up the time of the Premier and other members of the Cabinet in discussing a question on which we had previously taken a positive stand, would be an imposition on our part and we respectfully declined the invitation for a conference, but requested that all correspondence be laid before the Premier.

Moreover, there was at this time a strong inclination on the part of the more conservative members of the local Union to withdraw from the Western Federation of Miners and with wages and working conditions admittedly good, continue satisfactory and profitable employment as heretofore existing. In other words, the impression prevailed, that without interference and active participation in the dispute by the Minister of Labour the situation was fast clearing, and the danger of strike practically nil.

On July 16th Senator Robertson replied in part as follows:—

"From information received it would seem important that steps be taken towards a settlement, not later than Saturday next, otherwise a general strike seems inevitable."

It is thus forcibly shown that the Minister practically served an ultimatum on the Mine Managers that they must attempt to conciliate and his statement makes plain that the method of conciliation meant recognition of the Western Federation of Miners, or that a general strike would be called on the Saturday following.

Further confirmation is supplied by the following wires exchanged between the Secretary of the Union and the Minister of Labour, and we would draw particular attention to the concluding sentence of Union's telegram and its unqualified acceptance by Senator Robertson.

To Senator Robertson:

"Reports in press that we stated you had told us to go on strike are false and we are preparing a statement for the press giving the developments throughout the progress of the dispute. The only statement was that you said you did not see that the Department could do much more, and that you would not ask the men to wait longer in view of the Managers' attitude."

(Signed) JOS. GORMAN, Secretary,
Executive Committee
Cobalt Miners' Union.

To Secretary Gorman:

"Your telegram received and the statements contained therein are exactly in accordance with the facts."

(Signed) G. D. ROBERTSON.

Again we wrote the Minister on July 21st pointing out that we had reason to believe that previous correspondence would enable Senator Robertson to explain to Sir Robert Borden why we thought such a conference would only be wasting the time of himself and Cabinet. We stated we would be pleased to discuss the matter in full with him, providing that after having read the correspondence, he, the Premier, was then of the opinion that any reasonable business man could knowingly enter into business relations with a foreign organization which is not amenable to the

laws of Canada. On July 23rd we received a letter from Senator Robertson arguing that we, the Mine Managers, were entirely responsible should a strike be called.

In the Toronto Star under date July 26th Senator Robertson is reported as stating that we had refused to abide by the decision of a Royal Commission offered by himself; as a matter of fact the Mine Managers have never received such an offer of a Royal Commission from Senator Robertson, who on the contrary had telegraphed the Secretary of the local Union on the very day before the strike (July 22nd) that he was prepared to grant them a Royal Commission had it not been objected to by Mr. McGuire (the Union head) while in Ottawa.

Our knowledge of this wire to the Union came only indirectly through the Mayor of Cobalt and the Minister of Labour must know that his Toronto Star statement is grossly inaccurate. Why should the Minister's decision re a Royal Commission depend on Mr. McGuire? The Minister has a report from another Royal Commission of only two months ago, reading as follows:—

"We would point out that in centres such as Kitchener, Sudbury, Cobalt, Sarnia, Moncton, Grand'Mere, Shawinigan, where organized labour has not been encouraged, but where the wage scale and other conditions have been fairly satisfactory to the worker, as employers do not appear to have difficulty in obtaining an adequate supply of labour, an excellent object lesson is supplied. The original intention, as understood, of labour organizations, was to promote the welfare and better the conditions of labour generally, and if these purposes are adhered to there would be no room for criticism, but when the aims of the officers of these organizations become more political than industrial, encouraging unrest and fermenting dissatisfaction, an undesirable situation is created."

Finally we are forced to the conclusion that the Minister of Labour is much more interested in the absolute recognition of Trades Unions than in promoting industrial peace and harmony; seeing no difference, for example, between the Union of the Mercantile Marine and the Western Federation of Miners; giving little or no consideration to the fact that there is no dispute as to wages and working conditions but insisting, while the opportunity remains, in strengthening at any cost the authority and prestige of those who, like himself, are high in the councils of organized labour.

All the operators are willing and anxious at all times to treat with a body of their own men and employees of a number of companies have committees elected by themselves for this purpose.

At the time the strike was called, the lowest paid man on the pay roll was receiving \$4.00 per shift and machine men \$5.00 per shift.

The present dispute is one between the mines and the Western Federation of Miners and in no case can it be considered as one between the Mine Managers and their employees. **The mines did not throw their men out of employment, but the Union did** and since the mines will not deal with or through the Western Federation the question of adjusting the present deadlock is one that must be settled by the miners themselves. If this can be done in the near future, much suffering and hardship will be prevented, but if on the other hand the Western Federation can maintain their influence and authority, the mines will continue to flood, coal cannot be provided for winter operation, and of necessity operations will stand suspended at least until the Spring of 1920.

Special Correspondence

NORTHERN ONTARIO.

Porcupine.

The rumours of a few weeks ago relative to the resumption of work on the Porcupine V.N.T. mine were well-founded, it has been learned, but the plan failed to materialize due to various reasons, among which might be mentioned the labor situation. It would now appear probable that should a solution be found for the present deadlock in the labor situation in Cobalt, and which would add somewhat to the favorable labor outlook in the Porcupine Camp, the resumption of work on the Porcupine V.N.T. would soon follow.

The mine is equipped with a mill adequate to treat ore at the rate of around 100 tons daily. While cash in the treasury is understood to be fairly low, yet some 750,000 shares stated to be in the treasury would appear to be ample guarantee that not only can the present mill be utilized in building up a cash treasury, but the treasury shares should be sufficient with which to finance proposed construction work, including the addition of larger milling equipment.

It is rumoured in usually well informed circles that a revision of the terms as recently proposed may be made in connection with the negotiations being conducted with a view to merging the Thompson-Krist with the Porcupine Crown Mines.

It is understood that the Wettlaufer interests together with associates of Buffalo have interested themselves in the Lonsway group of claims, situated a few miles north from Golden City, in the Porcupine district.

It is proposed to carry out a more or less extensive exploration campaign toward which end a diamond drill contract has been let and the work already commenced by Messrs. Smith and Travers.

Mr. Irwin, one of the directors of the Foley-O'Brien mine, situated at the western outskirts of the town of South Porcupine, has returned to Buffalo after having paid a visit to the property.

It is understood that Mr. Irwin will probably make the recommendation to a meeting of the directors soon to be held that the mine be re-opened.

The general impression appears to be that the president of the Dome Mines will make good his promise to mark the beginning of next year by the disbursement of a dividend. At the time the promise was made, not a few mining men felt inclined to fear the likelihood of such a recovery in the financial position of the company. Information emanating from Toronto, and presumably from New York, would indicate that the mill has recently been treating ore at the rate of about 600 tons daily. This would correspond with the statement issued last spring in which it was declared to be the policy of the company, following resumption of operations, to gradually bring the mill up to a capacity of about 600 tons daily. This having now been achieved, further gradual increase would appear reasonable to expect. As to the average grade of the ore being treated, it is unofficially stated to yield about \$9 per ton, in which case the daily output would amount to about \$5,400, or at the rate of upwards of \$160,000 a month. The cost of operating is understood to be high, but the

general opinion seems to be that costs and net profits run about fifty-fifty, or at the rate of about \$4.50 a ton profit. Should such prove to be true, the monthly net profit would approximate \$80,000 and it can readily be seen would soon place the treasury in a strong position.

The company is capitalized at \$5,000,000 dividend into 500,000 shares of the par value of \$10 each. Of this only \$4,000,000 or 400,000 shares have so far been issued. Thus in order to disburse dividends at the rate of 20 per cent annually net profits of only \$66,666 monthly is all that is required.

There is one feature, of course, which is important, and that is that mill heads will gradually be reduced as milling capacity is increased. It is expected, however, that the smaller margin of profit realized on each ton of lower-grade ore treated, will be compensated for by the larger tonnage being handled, and that, barring labor difficulties, which now appear extremely remote, the Dome Mines Company is once more upon the threshold of success.

The annual report of the McIntyre-Porcupine is being awaited with interest. Although the company's year ended June 30th, the directorate has followed its much criticized policy of withholding the important information for a far greater length of time than is the custom of leading mining companies.

Not a few shareholders are disgruntled over the treatment accorded them by the directorate, and criticism is open and pointed. Just why the report should be held up each year is difficult to understand. The practice offers great benefit to the few insiders who are thus placed in a position to take advantage of either a favorable or an unfavorable report. This year's report is generally believed to be favorable, but no thanks is due to the directorate for the reason that little or nothing of an official nature is given out by President Bickell since his appointment, except that contained in the belated annual statements. The policy is in sharp contrast to the admirable frankness of the past president, the late Col. A. M. Hay.

Unofficial reports indicate that the net profits realized by the McIntyre-Porcupine during the fiscal year ended June 30th last, amounted to not far under \$850,000. During the year three dividends, each for five per cent were disbursed, amounting to \$541,542.55. This would leave a balance of something like \$300,000 to be carried forward to former surplus of \$872,172.75.

At the time of writing it has not been possible to secure any information as to the ore reserves as at the close of the company's fiscal year.

Gowganda District—Miller Lake-O'Brien Mine.

Certain misleading statements have recently appeared in certain portions of the press, in connection with the Miller Lake-O'Brien mine, in the Gowganda district.

The Miller Lake-O'Brien is the only producing mine in the Gowganda field, and ranks among the leading silver producing mines in this country. Recently it has been producing at a rate of upwards of one million ounces of silver annually, being about in the class with the Coniagas, O'Brien, and McKinley-Darragh mines in the Cobalt district, but considerably less than the leading mine, the Nipissing which up to the middle of this year was producing at the rate of close to three million ounces annually.

The statement that the Miller Lake-O'Brien has a re-

serve greater than any other "exclusively silver producing mine in the world," is perhaps one that the O'Brien Limited, owners of the mine in question, would not be prepared to make, and it is considered quite probable that the following statement as it appeared in certain parts of the press was inspired in the mind of some one who is not familiar with the actual situation:

"As already intimated, the Miller Lake-O'Brien in Gowganda has more silver in sight than any exclusively silver producing mine in the world, probably as much as 50 per cent of the total now showing at Cobalt. The district is promising if handled by men who know their business.

"The white metal is not nearly so widely distributed as the yellow, and is in fact practically confined to the Western hemisphere. Gowganda seems to have deposits of much greater vertical extension than those of Cobalt, and when the methods of their occurrence are thoroughly understood the camp will be our main reliance for silver."

The foregoing statement was obviously written by some person not very familiar with the subject under discussion, which fact is indicated by reason of the ambiguous construction, as well as the disregard shown for the facts. It would be wrong to belittle the importance of the Miller Lake-O'Brien mine. The property, as stated, ranks among the leading silver mines of this country. At the same time it is contended to be only fair that the owners of the property should be protected from any of the onus which might follow the circulation of unofficial and incorrect statements.

Fort Matachewan District.

A property of considerable merit, about which very little has been said, is that belonging to "Jim" Nelson, one of the oldest prospectors and miners in this country. The property is situated in the Fort Matachewan gold district, and is several miles north from the centre of activity in the latter field.

The surface outcrops on the Nelson claims show andesite and porphyritic formations, in which veins or mineralised dikes occur running north-east and south-west. Very encouraging gold values have been encountered, including some visible gold. A number of men were taken in to the property this week for the purpose of making a more or less thorough exploration of the surface, including the sinking of test pits.

Gold bearing veins have been found to occur on the Indian Reservation near Fort Matachewan on the Great Northern Bend of the Montreal River, and only a few miles north from the gold discoveries which have during the past year or so attracted considerable attention to the Fort Matachewan district.

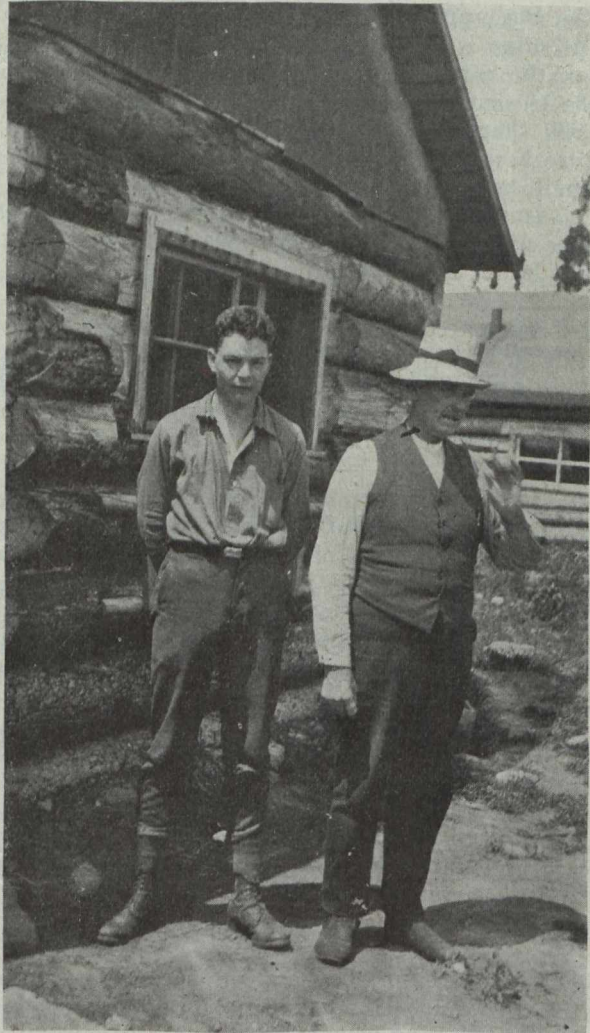
It is learned that an effort is being made to determine what the government can do in the matter of making the mineral possibilities of the reserve available for exploration. The reservation is about four miles square and is situated partly in Alma and partly in Baden townships. Gold-bearing veins discovered on the Nelson claims in the township of Baden, and former promising finds made in the township of Alma has served to place the Indian Reserve in the heart of a promising prospective area.

The rock formations in the area are somewhat similar and appear to be a continuation of those which occur as far west as the Ontario-Quebec boundary, passing through Kirkland Lake, Boston Creek, Skead, Larder

Lake, etc., and offers an attractive field for the prospectors.

At a depth of 170 feet on the Matachewan Gold Mines (formerly the Otisse), lateral work is being carried on with favorable results. Drifting operations are being carried on in two directions, while crosscutting is also under way.

It is planned to proceed with development work on a comprehensive scale until winter at which time a fair estimate can be made with regard to additions to the mining plant. T. J. Flynn, manager of the mine, came out a few days ago, and is quite optimistic over the outlook.



On Right, T. J. Flynn, Manager, Matachewan Gold Mine.

Kirkland-Lake.

In connection with the merging of the Tough-Oakes Gold Mines with the Burnside, Aladdin, Sudbury Syndicate and Sylvanite, certain portions of the English press has offered more or less serious criticism. The chief objection presented is in connection with the capitalization. In connection with this the "Financial Times," England, states that it is not so much concerned about the terms of the merger as "with the capitalization of the consolidation at a million sterling, with nearly £800,000 in issue to start with and with what we consider to be the slender basis for this valuation." Continuing this criticism, it is pointed out that after reading the official summary of Lieut.-Col. H. H. Johnson,

the conclusion is reached that: "This engineer provides more in the way of prognostications than positive data of value." Further: "There is nothing whatever to show in the summary we are referring to that the consolidated properties will yield a reasonable profit. That remains to be demonstrated. We are told developments 'should' do this thing or the other, that its situation gives one property 'unique possibilities', and so on; but when it comes to facts, we find that the one mine on which there has been a fair amount of development now has 'only a small tonnage of ore reserves in sight,' while on the other two Kirkland properties little actual development has been done."

Concerning this, H. G. Latilla, the chairman of the extraordinary general meeting of the Kirkland Lake Proprietary, Ltd., held in London on July 16th, declared that he welcomed criticism, and that instead of the capitalization being unreasonable, it was just the opposite, in that should the merger be completed along the proposed lines it would in reality effect a reduction of about £1,200,000.

Concerning the foregoing, the writer is familiar with the position of the Tough-Oakes Gold Mines, particularly in relation to the present physical condition of the mine. Criticism as to its weak position is quite unfair, for the reason that during the prolonged litigation in which the mine was involved those in charge appear to have devoted their energies toward producing the gold in sight with very little regard for developing in advance the continuation of these deposits or exploring for new ones. In justice to the criticism, however, it must be admitted that it is intelligent, and, therefore, no doubt sincere. The only objection is that in view of the peculiar situation at the mine, the term 'prognostications' appears to be out of place owing to the fact that ore reserves are low, due entirely to the policy of the former control to mine ore accordingly as it was developed. It has been demonstrated that development work has always resulted in bringing ore into sight with remarkable rapidity at the Tough-Oakes, and that there has been no developments that would even indicate that the limit of these deposits have been reached. To the contrary there would appear to be very probability, without making unreasonable prognostications, that a very considerable period of productivity lies ahead. As to whether or not the future will result in the realisation of a reasonable profit on a capitalization of a million sterling is a question of course that only the future can decide, but in the meantime there would appear to be reasons for being quite optimistic over the outlook.

Among the new companies operating in the Kirkland Lake field is the Granby-Kirkland Gold Mines. The company has two claims comprising approximately 85 acres, situated in the township of Lebel about one mile north-east from the Tough-Oakes mine, and a little north from Gull Lake.

Up to the present time about 300 or 400 feet of surface trenching has been done, during the course of which three very promising veins have been opened up at outcrop. These veins vary in width from three to upwards of five feet. On the main or No. 1 vein which is about five feet six inches in width, a shaft has been started and has reached a depth of about twelve feet, at which point the vein shows a tendency to widen. The veins stated to occur in the contact between conglomerate and porphyry formation, and is composed of

quartz and altered rock, all of which is highly mineralised. What appears to be lead-telluride occurs in some of the vein filling, an analysis of which is to be made this week. A mud-seam also occurs in the vein.

It is understood the plan of the management is to continue surface exploration during the present favorable weather after which sinking operations will be proceeded with. The company is capitalised at \$2,000,000 divided into 2,000,000 of the par value of \$1 each. E. Croteau is in charge of the work.

Very satisfactory progress is being made in constructing the macadam road from Swastika to Kirkland Lake. As yet the work has been carried on largely on the western end, adjacent to the railway. A start has also been made on that part which passes over the Kirkland Lake Gold Mines.

As near as can be learned, it would appear probable that the east end may be left over until another year for completion, the present indications being that the first four miles or so will be about all that may be completed this year. This would take in all the mines as far west as the Wright-Hargreaves.

A gold discovery made on a group of claims situated in the township of Bernhardt, in the Kirkland Lake district is attracting considerable attention. The find was made on claim number 6075, being one of a group owned by K. Ayoub of Cobalt.

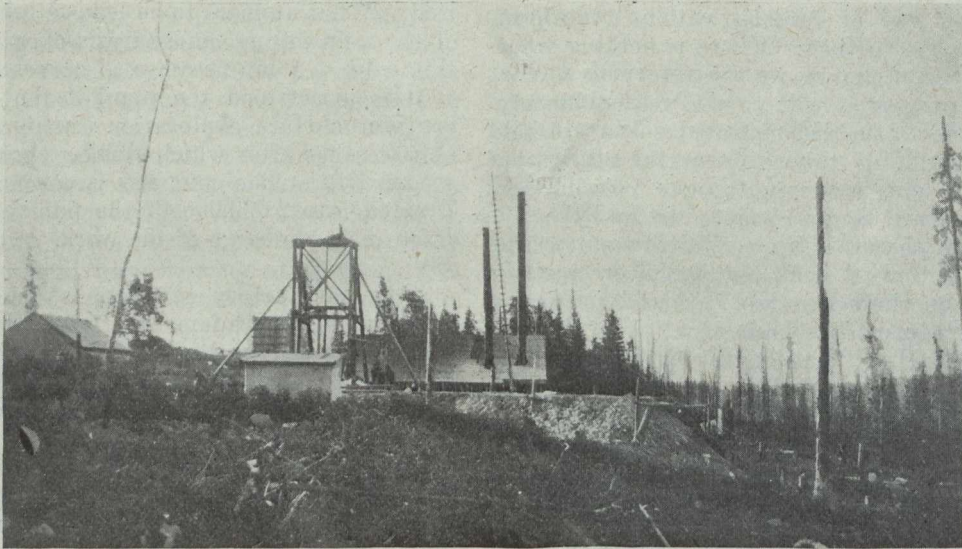
The rock formation on the claims referred to is stated to consist of keewatin, basalt, porphyry and diabase, in which a vein has been opened up showing a width of from six to eight feet, composed of sugar quartz and schist and containing visible gold. The claims are situated in the southern part of the township of Bernhardt, and on the west side of Amikougami Lake. They have been held for about four years by the present owner, the assessment work having been completed this summer.

Boston Creek.

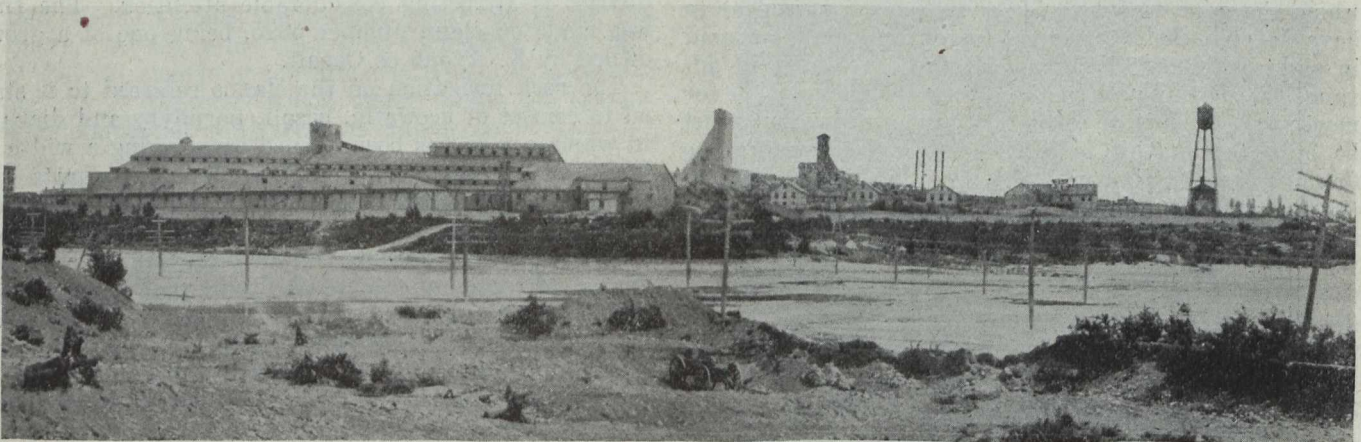
With the near approach of fall which will draw to a close one of the finest summers in Northern Ontario's history, comes the information that representatives of the provincial government are looking into the matter of offering assistance in the building of a road through the Boston Creek district to the Skead area. As far as the Skead area is concerned, a winter road will be of considerable assistance, and should be built. In the matter of the Boston Creek road, however, the time has arrived when it is found necessary to haul a large amount of equipment without waiting for snow roads, and the belated move of the government is less than had been expected.

It is true that the burdens of the Department are heavy, but no matter to what extent this holds good it is essential that the road-building programme should be guided by the merits of the case. No other mining area bearing anything like equal promise to that of Boston Creek has been left to paddle its own canoe. At least not by any of the party governments which have held power in this province during recent time.

Quite a number of prospectors have left for the scene of the reported gold discovery in The Pas district, Northern Manitoba. According to reports from the north some seventy or eighty prospectors are reported to have left the Porcupine district for the purpose of visiting the reported discoveries, and, if considered advisable, staking claims in the vicinity of the finds.



Matachewan Gold Mine, N. Ont.



The Hollinger Mine.



Matachewan Gold Mine, N. Ont.

According to unofficial information, it is learned that interests of Bedford, N.Y., have acquired the property of the Hill Gold Mines, in the Painkiller Lake district, and that the property will be worked under a new name, probably the Beattie Gold Mines.

According to advice just to hand, the Crown Reserve Mining Company has purchased two mining claims in the Larder Lake gold area. The two claims are part of a group of thirteen owned by N. N. Maloof, of Haileybury, and are situated about a little less than half way between the Harris Maxwell, one and a half miles north-east from the Harris-Maxwell and the Kerr-Addison. The claims in question were originally staked by Eli Tripp. Work carried on has uncovered some very promising showings. A highly mineralized porphyry dike which has been uncovered on the two claims just sold, has also been traced over a portion of the group still retained by Maloof.

In the Maple Mountain section of the Elk Lake district a good deal of inconvenience is being caused by the lack of satisfactory transportation facilities. During the past several years a considerable amount of exploration and development work has been done on the White Reserve property and a substantial amount of silver ore has been opened up. This is another district where the government could be of assistance.

Cobalt Strike Situation.

The deadlock in the labor situation at Cobalt continues. After one of the most sincere and unbiased efforts on record, a committee of returned soldiers acting as a neutral body, have failed to find a solution to the labor strike. This committee, after approaching the Cobalt Miners' Union with the suggestion that a ballot be cast on the question of whether or not the men favored a return to work on conditions which existed before the strike was called, which suggestions were rejected, approached the Mine Managers of Cobalt, who granted them a hearing and even went so far as to concede to the request that a system of collective bargaining be agreed upon, and that all employes be taken back without discrimination accordingly as positions should be available. These concessions, presented by the Temiskaming Mine Managers' Association to the Committee of Returned Men, were placed before the workers of Cobalt together with the request that each man, union and non-union, should record his vote as to whether or not he favored the proposition. The matter was placed before the workers without recommendation or otherwise. Regardless of the fact that the workers were asked to vote either for or against the matter of returning to work, or remaining on strike, the executive of the Union ordered the members of that organization to not cast their ballot, under penalty of being expelled from the union. As a consequence of this the ballot taken is scarcely representative of all the workers of Cobalt.

The executive of the Cobalt Miners' Union declare that they recommended to their members that the matter be voted upon, but that the members refused to support the recommendation. This is construed as constituting a lack of confidence in the judgment of the executive.

Owing to the failure of the Returned Soldiers' Committee to find a solution, the strike continues. The situation now is this: The Cobalt Miners' Union oppose the interference of a neutral organization. The Temiskaming Mine Managers' Association refuse to recognize or

deal with the Cobalt Miners' Union. Thus, as a consequence of neutral influence or effort being of no avail, the gulf has broadened.

To the neutral observer, the situation presents every indication of being a more or less tame affair for some considerable time to come, in that with the union defying its members to vote on any proposal put forward by neutral bodies, and the mine managers refusing to recognize the union, there would appear to be noliikelihood of a solution being found or even suggested under the present circumstance.

The false impression has gone abroad in badly informed circles that the Returned Soldiers' Committee was endeavoring to break the strike. As far as can be seen, just the opposite has been the case. For instance, in presenting their proposal for the expression of opinion as to whether or not the workers of Cobalt would return to work under a system of collective bargaining, the Committee appears to have refrained entirely from making any recommendations for or against the plan, and presented it as a neutral body, even carrying their neutrality to the point of actually not casting their own ballot on the question, although, as workers in the closed mines and plants, they were legitimately entitled to record their votes. The workers and the business men of Cobalt would appear to be indebted to the Returned Soldiers' Committee for their commendable endeavor to secure an unbiased and representative expression of opinion of all the employes affected in the present labor strike, despite the fact that success has been denied them.

Company Incorporated to Aid Prospecting.

A new company, known as the Prospectors' Development Company, Limited, has been incorporated, which plans the organized development of promising mining properties in Northern Ontario. The company is capitalized at \$2,000,000 divided into \$1 shares. There has been no promotion stock issued, the entire stock remaining in the treasury. The scheme is the first of its kind to be undertaken in this country and may reasonably be expected to enlist a good deal of support. The incorporators are men of good reputation in the mining field, the following gentlemen being identified with the enterprise: John B. Holden, of Toronto, Harry Oakes, president of the Lake Shore Mine; H. H. Johnson, of the Tough-Oakes; Wm. Wright, original owner of the Wright-Hargreaves' mine; Mr. Bain, of Bicknell, Bain, McDonald & Gordon, and others, which gives assurance of integrity.

The plan is to have prospectors register their holdings with the company, and, if the property possesses merit the holders are to be paid a limited amount of stock in the company, which will carry out the necessary assessment work obligations and receive a small percentage in each claim for each instalment of work paid for. It is planned to carry properties through the prospecting stage and make it possible for the prospectors to still be interested in the mines that may result from work done, instead of, as has been usual, the prospector not getting his full measure of reward in cases where he has been the discoverer of large mines.

West Shining Tree District.

A large amount of diamond drill work is to be done in the West Shining Tree district this year. Although Mr. Hore's recent report on the district marked it as one of more or less uncertainty, but presenting considerable possibilities, the feeling exists that there are

a number of mineralized bodies which should be comprehensively explored.

Not a few conservative mining men have shunned the camp for the reason that it has been boomed by brokers. Conservative newspapers throughout the country have advised caution with regard to dealing in shares of companies operating in that district. The promoters have endeavored to put the public off its guard by charging that certain newspaper correspondents were knocking the camp itself. At the present time, after consulting the opinion of recognized authorities, it may be stated that the West Shining Tree district has some prospective merit. The pay-streaks, of course, are narrow, and the development of the various properties is still a gamble, but all new mining camps must first pass through this stage. At the same time, the necessity for advising caution on the part of the public is stronger than ever, for the reason that when mining engineers or geologists make a report on property they consider only the mineral deposit and not the methods of financing. The would-be speculator should always learn approximately what amount of money received for stock is actually going into the treasury and how much is being raked off by the promoters.

WASAPIKA CUTS VEIN AT 100 FT.

Development work at the Wasapika gold mine is progressing favorably. A cross-cut is being driven at the 100 ft. level from the shaft towards the Ribble vein. This cross-cut has just entered the vein and the indications are that the vein will prove to be very wide. Nearly 9 ft. of quartz has been broken and the face is still in quartz. The quartz is well mineralized.

Herrick Drill in Operation.

Diamond drilling has begun at the Herrick gold mine, Wasapika gold area. It is planned to thoroughly explore the Herrick vein by drilling preliminary to development by shafts and drifts. The shaft is in good ore for 50 ft. and the drilling will give some idea of the nature of the deposit at depth.

West Tree Shaft in Rich Ore.

Sinking of a shaft on the West Tree property on the west shore of Upper Wasapika lake is proceeding rapidly. Some very rich ore is being taken from the shaft.

Across the lake there is a shaft from which rich ore was taken 3 years ago. It is planned to drift across the lake towards this old shaft from the western shaft.

BRITISH COLUMBIA.

Mine Safety and First Aid Competition, Nanaimo, B.C., Sept. 1st.

The Vancouver Island Mine-Safety Association will hold its fourth annual field day, mine-rescue and first-aid competition on Labor Day, September 1st, at Nanaimo, B. C.

The programme will include mine-rescue competition, which is open to the mining world, for the Vancouver Island Mine Safety Association shield and first and second prizes; first-aid competition, team event open to the mining world, first and second prizes; B. C. Department of Mines cup, first and second prizes; W. L. Coulson cup, first and second prizes; V. I. M. S. A. Juvenile cup, sixteen years and under, first and second prizes; two-man event, first and second prizes. One man event, first and second prizes. Teams are expected from Nicola Valley, Eastern B. C., the State

of Washington and from all the mining centres of Vancouver Island.

The "Journal" has arranged for a full report of the competitions by its regular correspondent.

Mining Exhibit at Vancouver Annual Exhibition Creating Great Interest.

When the Vancouver Exhibition Association's 1919 Exhibition is opened by Sir Arthur Currie, one of the great attractions will be the exhibit of British Columbia minerals and mining machinery.

The B. C. Chamber of Mines, working in conjunction with the Exhibition Association have arranged for an exhibit, which will display the wealth of British Columbia's mineral resources on a scale never before attempted, and which is sure to draw a great deal of public attention. New samples are coming in continually, and the arrangement of the different minerals will be attractive and with the idea of showing each variety in the best possible manner.

The supply and equipment firms are taking hold in a manner which shows their interest in the exhibit. There will be a concentration plant, a flotation plant, water wheel, and assay furnace all in actual operation, and actual workings of drills, etc. This will make the allied exhibit of much interest to all visitors.

The mining exhibit this year will be of special value, as there will be hundreds of visitors to the exhibition, who are touring the Northwest in autos, and they are planning to be at the exhibition during Exhibition Week, this means direct advertising of British Columbia's natural resources.

CONSOLIDATED MINING & SMELTING COMPANY PURCHASE GOLD PROPERTIES NEAR GOUDREAU.

It is reported from Sault Ste. Marie that the Consolidated Mining and Smelting Company of Canada interests have purchased a portion of the Webb-McCarthy-Miller gold properties near Goudreau, the deal involving \$400,000.

The holdings acquired by the Trail people include six claims situated three miles east from Goudreau, but Sault men interested have other holdings in the district including three claims of McCarthy and Webb on one side and three other claims of Miller and Huckson on the other.

The conditions of the deal, it is understood, including the construction of a \$500,000 plant by the purchasers.

New Interests.

The properties have been gone over twice by J. K. Cram, representing the company, who found the tonnage and general average very satisfactory. They purpose putting in a spur from Goudreau and to start diamond drilling within forty days from date of purchase. Smith and Travers, Sudbury, have contracted for the drilling. The company is arranging for electric power from the Michipicoten Power Company at Michipicoten River.

While results of the assays taken on the property cannot be secured owing to the absence of Mr. Cram, the syndicate which has just disposed of the claim say they are as high if not higher than anything yet found in northern Ontario and that there is ample tonnage in sight to make the development one of the most interesting features of mining the north has ever experienced.

NOVA SCOTIA NOTES.**Nova Scotia Steel & Coal Co.**

The N. S. S. & C. Co. has commenced operations on the Stubbart Seam, near Point Aconi, about six miles from Sydney Mines. It is understood the company has in view a continuation of its existing railroad system from the Scotia Colliery, distant about four miles, which will necessitate a bridge across the Little Bras d'Or. It is understood that it is considered preferable to take the coal from the new Stubbart Mine direct from the Point Aconi district to Sydney Mines, rather than commence any minor shipping operation at or near the Bras d'Or.

The production of the Scotia collieries in July compared with July, 1918, as follows:

	July, 1919.	July, 1918.
Princess	13,141	12,161
Florence	16,153	14,306
Scotia	4,797	7,560
Jubilee	6,237	12,191
	40,328	46,218

The outlook for August is said to be much improved, and it is probable that the collieries will work almost full time during this month.

About half the regular working force at the Steel Plant is engaged on repairs, but all the productive operations are suspended.

Dominion Coal Company.

Work at the collieries has been lessened by the suspension of producing operations at the Sydney Plant, and the smaller tonnage of coke required.

The new shaft to the Phalen Seam, situated between No. 1 and No. 2 Collieries is progressing rapidly, and the excavation is now below the Harbour Seam.

The Limestone quarries of the Dominion Steel Company in Newfoundland produced 47,702 tons in July against 45,648 tons in July, 1918. The limestone quarries at Marble Mountain in Cape Breton in July showed an output of 51,176 tons comparing with 46,740 tons in this month last year.

At Wabana, the iron-ore output in July was 68,914 tons. Last July it was 50,933 tons. The production of all the departments of the Mines & Quarries of the Dominion Steel Company was therefore greater in July, but it may be anticipated that the slackening of operations at Sydney will necessitate some reduction in production of raw materials, although it may be expected that this will be brought about rather by a curtailment of the shipping season and an earlier suspension of production as winter approaches, rather than by restriction of output at the moment.

War Loan Savings.

The Maritime Mining Record says:

While quite a number of young miners sold their war bonds, there are many of the married men who deeply regret that the war loan system of saving has passed away. These men openly state that but for the war bond they could never have saved any money. Now that they have a few hundred dollars they would like to have more, but they are convinced that there is only one way of getting it and that is the system of payment through the coal companies.

Those who have been able to hold on to their Victory Loan bonds have had reason to be satisfied from a purely monetary standpoint, seeing that the bonds are now quoted at a good premium and are likely

to appreciate still further. It has been particularly pleasing to those who have purchased their bonds through the instalment plan on the scheme made possible by some of the coal companies to receive full interest on the June coupon, without any deduction for interest by the company that in the first instance purchased the bonds for its employees. The Scotia Company adopted this plan, and it has been the occasion of much gratification to its employees.

Unfortunately, as the "Maritime Mining Record" states, some of the younger men, and some who unfortunately could not help themselves, sold their bonds, and in some instances there is no doubt that they were taken advantage of by persons who gave them par for bonds that were quoted at 104 and 105.

The "war loan system of saving" has not passed away, however, as another loan is shortly to be asked by the Government. If the coal companies assist their workpeople to buy the new loan, in the same way that they did in the case of the previous loans, equal success will be achieved, allowing, of course, for any depressed trade condition that may exist when the loan is floated.

Working Hours.

As bearing on the determination of the United Mine Workers to enforce a seven-hour day, it is significant to note that the Tennessee Coal, Iron & Railway Company's mines have gone back to a ten-hour day, with time and a half for all time over eight hours, and that on August first this move was followed by the mines of the Republic Iron & Steel Company. The eight-hour day which has been in force since April has proved a decided failure. The longer day is expected to mean a considerable increase in wages, and already a large increase in tonnage has been noted.

That a similar procedure may be experienced in Cape Breton is indicated by the Maritime "Mining Record," which says with reference to the five day week:

"There are many others against the five day week system than President Workman. Some U. M. W. locals protested against it, while many members of most locals are loudly declaiming it. These men openly state that they were led to believe that five days per week meant six days pay, or they would have voted against instead of for. Nearly all day-men say that it does not suit them, and miners and contract men receiving a bonus for steady work want none of it, for they stand to lose from twenty to fifty dollars per month. These men are 'saying things' now and when the loss hits them things will be 'doing' around the collieries. That such a vital question could be so darkly initiated is beginning to arouse the suspicions of the thinking class of the workmen who are beginning to realize that there are others besides politicians who win elections on promises."

The Dominion Coal Company has obtained re-delivery of the S.S. "Kamouraska" from Admiralty requisition. With the "Jord Stratheona" also recently released, this company should be in a much improved shipping condition.

About fifteen to twenty years ago, the Dominion Coal Company formed sales connections in Norway, and some coal was shipped there from the Cape Breton collieries. It is announced that recently the Furness Withy people shipped 3,000 tons of Cape Breton coal

to Norway by the "Bratland," and that a further order for 10,000 tons has been received at the mines. Two steamers, "Brad" and "Mons" are due at Sydney about Sept. 1st for further cargoes for Norway. In this instance Cape Breton coal is being substituted for English coal.

It is significant of the reversal of trade conditions brought about by the war that Cape Breton coal can be shipped to Norway and sold in competition with English coal—or rather in default of English coal—and that Cape Breton coal cannot compete with United States coal in the Montreal market.

A VAIN PETITION.

The most arresting article in a late issue of the Springhill paper was a letter of a correspondent. Here is the letter, unnecessary words omitted. "I am a church member and member of a labor union. I try to be consistent. I attended prayer meeting the other evening and was called on to pray. Among my supplications I humbly asked that in view of the fact that a majority of the workers were day laborers, and in all probability would be reduced to five days a week that God work on the hearts of our statesmen to do something to reduce the high cost of living. At this point a man in the audience got up and said he could not listen to such talk. He told me I was no friend of labor. Said he: "How can the Lord reduce the high cost of living without reducing wages." And we too, not facetiously not lightly, but, in all honesty ask "How can He?" — Maritime Mining Record.

LARGE COAL EXPORT ORDER.

Philadelphia.—It is reported that a New York firm has been successful in placing with Pocahontas operators a contract for 500,000 tons of coal a year, for three years, or a total of 1,500,000 tons, for export to Great Britain.

Assurance was given that bottoms for transatlantic shipment would be available, and the entire contract is reported to have been at a fixed price. Export coal of this high grade is commanding \$1 to \$1.50 premium over the domestic price and it is assumed that this would be attractive to Pocahontas region shippers in a long-term contract such as the present instance.

WORLD'S DEEPEST OIL WELLS.

Of four deepest oil wells in the world, two are in West Virginia, one in southwestern Pennsylvania and the other in Germany. Deepest well is the J. H. Lake, of the Hope Natural Gas Co., which was abandoned at 7579 feet.

Second deepest well is the M. O. Goff drilled 7386 feet, about eight miles northeast of Clarksburg, W. Va., also by the Hope Natural Gas Co. Third deepest is at Czuchow, Germany, and is 7348 feet deep. Fourth is the R. A. Geary, drilled to a depth of 7248 feet, in southwestern Pennsylvania, by the People's Natural Gas Co., according to the United States Geological Survey.

In comparison with these depths, other depths reached by wells or mines are insignificant. Depest mine in the world, for instance, is shaft No. C of the Tamarack mine in Houghton county, Michigan, which has a depth of 5200 feet.—Boston News Bureau.

HOLLINGER CONSOLIDATED GOLD MINES, LIMITED. INTERIM REPORT, 1st JAN. —17th JUNE, 1919.

The Interim Report of the Hollinger Company covering the 6 four-weekly periods from 1st January to 17th June, shows income and disposals as follows:

Income	\$3,166,625
Expenditure	1,646,868
	<hr/>
Dividends	\$1,519,757
	738,000

Added to Surplus \$781,757

Current assets, plus bullion assets, total \$3,346,575, which less current liabilities, leaves a surplus of \$2,853,043.

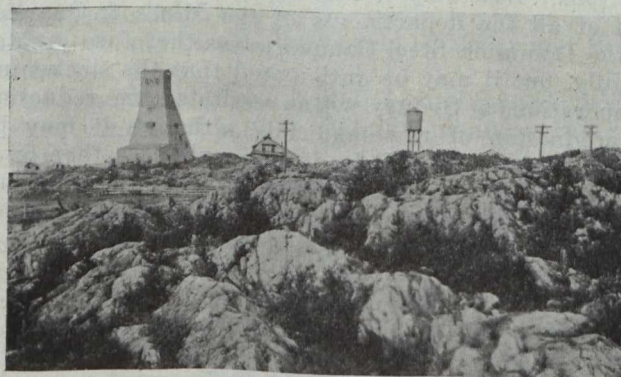
The number of persons employed totalled 1,344 at 17th June against 1,311 at March 25th, an interesting feature being the slight decrease in the non-productive



A Quartz Outcrop of the Hollinger Property.

force and an increase of 40 men in the mining class. The number of miners obtainable is understood to be less than could be employed, but the labor troubles in the Cobalt and Kirkland Lake camps have helped the situation to some extent.

The mill ran 69 per cent of the possible running time, treating 316,386 tons of which 50,477 tons came from development. The average value of the ore treated was \$9.93 per ton. Cost of treatment totalled \$4.95 per ton.



An Unusual View of the Hollinger.

We believe the world will better know how to behave itself and keep the peace when it has learned that imports are the only international currency that pays for exports and that all schemes to blink, dodge or sidestep this fact can lead only to dispute and conflict. Trade is barter, money is but a poker chip, and the thought of money as wealth in itself gives life to the old proverb: "The love of money is the root of all evil."—Stephen Bell, in "Commerce and Finance."

**THE REPORT OF SIR ARTHUR DUCKHAM
MINORITY REPORT OF THE BRITISH
COAL COMMISSION.**

Acquisition of Mineral Rights.

The whole of the mineral rights of Great Britain should be acquired by the State, the value of such rights being estimated in each case on the same basis as adopted by the Inland Revenue in assessing ownership of minerals for death duties (the evidence of the witnesses from the Inland Revenue Department clearly shows the principles), due regard being given to the change in value of money owing to the war, increased taxation (with the exception of the Excess Mineral Rights Duty), etc. No increased value should be given in cases where it can be shown that mineral owners have used improper pressure to obtain royalties above those commonly obtained or in the case of sliding scale royalties which have become excessive through war conditions. Compensation should preferably be paid in the form of annuities, as suggested in Mr. Walter Leaf's evidence.

Ministry of Mines.

A Ministry of Mines should be set up, which should, at a later date, form one of a group of Ministries attached to a Ministry of Industry. The duties of the Ministry of Mines should be (inter alia)—

- (a) To supervise and control all mineral rights throughout Great Britain and to ensure the proper working of all minerals.
- (b) To ensure the making of a complete geological survey (including the systematic proving of all coal areas) of the whole country.
- (c) To be responsible, through its inspectors, for the proper equipment and running of mines to ensure safety.
- (d) To initiate and, if necessary, carry out research for the improvement in the conditions of those working in and about mines, better methods of winning coal, etc.
- (e) To undertake the study of the special diseases of underground workers and to initiate special treatment.
- (f) To exercise any control of the industry which a national emergency may render necessary.
- (g) To advise the Minister of Labor as to the special conditions present in the coal industry.
- (h) To co-operate with any Government Department set up for the conservation of fuel.

Area Commission.

A Commission assisted by experts acquainted with the various districts should at once be set up to decide the areas into which the country should be divided (all mining interests in each of such areas being amalgamated) in order to obtain the best economies and efficiencies in the winning and working of coal. The areas should not be larger than necessary to ensure:—

- (a) The most efficient draining and pumping for the whole area.
- (b) The most rapid transport of the coal to the surface and the miner to his work.
- (c) The obtaining and distribution of power from one centre.
- (d) The prevention of waste of coal by artificial barriers, etc.
- (e) The proper handling of the various classes of coal produced in the area.

Unification.

It is essential that all the colliery interests in the

areas specified should be amalgamated in order to obtain proper working. The amalgamated interests would be granted a lease by the Crown to work coal and other necessary minerals.

Method of Unification.

It is possible to prepare a variety of schemes to attain the primary object of unification in areas, but the following proposals are made to illustrate the intention. The proposals assume the discontinuance of the present system of control.

The whole of the mining interests in each area should be amalgamated into a Statutory Company (hereinafter called "a District Coal Board.")

(a) The total par value of the shares issued by any Board shall not be greater than the total value of the various amalgamated interests as going concerns at the present time, but valued at 1914 prices, due allowance being made for capital expenditure since that date at enhanced prices.

(b) The shares of the District Coal Board should be of one class only and should be entitled to a minimum rate of dividend of 4 per cent which should be guaranteed by the Government.

(c) Profits in excess of those necessary to pay the 4 per cent dividend and usual depreciations may be utilized—(i.) to form such reserve funds as may be approved by the Minister of Mines. (ii.) To pay a further 2 per cent dividend.

Of the remaining profits one-third may be utilized for paying further dividend on shares, but the other two-thirds must be used to reduce the price of coal.

The above proposals for the division of profits do not preclude a bonus on profits being paid to the managerial and clerical staff. This would correspond to the bonus in output proposed below for the manual workers.

Government Right to Take Over a District Coal Board.

The Government shall have the right to take over the shares of any District Board, should the Board have called upon the Government in four years out of a consecutive seven years to make advances to pay the guaranteed dividend and the Board failed to repay within seven years any advances made. The compensation to be paid by the Government for the shares so acquired should be based upon the profits earned by the undertaking during such seven years.

Board of Directors.

The number of directors on each Board should be not less than seven. All except three of the directors should be appointed in the ordinary way by the shareholders. Of such three directors, one should be elected by ballots of the agents, managers and undermanagers, and two by ballot of the workpeople engaged in the area.

Government Representative.

The Government, as owner of all minerals in the area, should appoint a competent mining engineer to safeguard the interests of the State. He should have the right to attend directors' meetings when he desires to do so, but should have no voting power.

**Agents, Managers, and Undermanagers
Representatives.**

The agents, managers, and undermanagers have and will continue to have legal obligation for the proper and safe running of mines. They, therefore, should be represented on the Board of Directors. Their expert advice would be invaluable.

Workmen's Representatives.

Labor has a special claim for representation in the directorate as wages form the predominant item in the cost of production and the conditions of the industry are necessarily hazardous. The other directors would benefit greatly by having actual workers on the Board with a close knowledge of conditions, and the workmen would have a definite voice in the conduct of the industry.

Minimum or Standard Wages.

The minimum or standard wages for mine workers should be considered and settled together with the general wages of the country. Whichever machinery may be set up by the Minister of Labor for this purpose should be utilized.

Committee For Settling Rates and Wages.

Special rates and wages should be settled for the area of each District Board. The basis should be the agreements at present in force which have been arrived at after years of experience. Conciliation Boards on similar lines to those now existing shall deal with special wages and disputes.

Payment by Results.

The wages of all workpeople and employees should be guaranteed by minimum or standard rates. An equitable system of payment on increased output and efficiency should be arranged and made applicable as far as possible, to all manual workers in addition to the system of piece-work rates at present in force.

Associated Undertakings.

Where a colliery undertaking is attached to other industrial undertakings, such as iron, steel-works, by-product ovens, etc., the value of the colliery undertaking should be separated and included in the holding of the District Coal Board. The colliery should then be leased back to the original owners, who would have the right to raise and use all coal necessary for their own purposes, but they should have no powers to sell coal as such except through the District Coal Board.

Pit Committees.

At each colliery a pit committee should be set up with the manager as chairman and representatives of each main class of workmen employed in or about the mine. The pit committees should meet at definite intervals and would be competent to discuss and make proposals on:—

- (a) Safety of the mine;
- (b) Conditions of working; **3**
- (c) Improvement in methods;
- (d) Comfort and well-being of the workers while in the mine or colliery premises;
- (e) Any disputes that may arise other than wages disputes.

Wages would not be discussed at pit committee meetings.

Multiple Shifts.

The general extension of multiple shifts, as the most ready means of increasing output, reducing costs, and improving wages to the workpeople as a whole, should be immediately considered by a joint committee of the Government, owners, and miners.

Coal Traffic.

The question of the economy of coal traffic and private ownership of wagons should be dealt with by the Minister of Ways and Communications in conjunction with the Minister of Mines. The interests of the consumer must be safeguarded, and the consumer must be given free choice of fuel to ensure proper economy in its utilization.

Publicity.

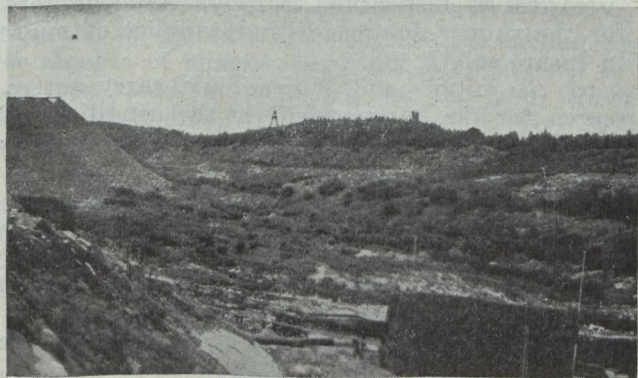
It is essential that there should be complete publicity as to the operations and financial results of the coal industry. The Ministry of Mines should be expressly charged with the duty of publishing, not less than once a year, figures showing the cost of getting coal in each of the districts of the country, and the proportion chargeable to materials, wages, general expenses, interest, profits, and other general items.

SUB-AQUEOUS PROSPECTING.

In an interview with the Victoria "Daily Times," Mr. Vaughan M. Lavery, of Le Pas, Man., recently returned from overseas service in a tunnelling unit, suggested that in course of time prospecting in Northern Manitoba would be done with the aid of diving equipment. The country is of the "rocky lake" type, and in many instances the rock exposure which is being following by prospectors disappears under the waters of a lake.

Apropos of Mr. Lavery's suggestion, readers of the "Journal" may be interested in the accompanying photograph of the bottom of the Kerr Lake, snapped by Mr. R. E. Hore a month ago. Fine crops of oats and potatoes were growing on the ancient mud bottom, which has dried out in fine laminations that in section looks not unlike the so-called "paper shales."

An interesting feature of the lake bottom is the glaciated silver-bearing rocks, showing the glacial marks in a surprisingly preserved condition. In some



The Bottom of Kerr Lake.

instances the native silver had been "plated" on the surface of the rocks by the weight and slow movement of the overlying glacial mass.

Mr. Lavery's future prospector will probably be able, in his sub-aqueous geological investigations, to dispense with the old-fashioned diving-apparatus that requires an air-pump and a breathing-tube communicating with the surface of the water, and will be equipped with the self-contained compressed-oxygen diving-helmet, and be thus enabled to "fossick around" at will in shallow lakes.

Incidentally, Mr. Lavery considers that in ten years time the Northern Manitoba district may be the richest mining area in North America.

See our exhibit at the Fifth National Exposition of Chemical Industries Coliseum and First Regiment Armory, Chicago, week of September 22.

AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS.

Chicago Meeting.

In view of the large number of coal mines centered about Chicago, it is planned to make the Chicago meeting, to be held at the Congress Hotel, September 22-26th, of special interest to the coal industry. A large proportion of the 150 technical papers prepared for discussion will be on subjects related to coal, coal mining and coke. Among these is a carefully prepared symposium on sulphur in coal. Excursions have been arranged during the meeting that will be particularly attractive to the coal man; on Thursday the trip to LaSalle will include the inspection of operating coal mines in the district, and late Thursday night a party will leave for the mines in Franklin and McCoupin Counties, where some novel and ingenious ideas in plant design and methods of operation have been adopted and proven practicable. The trip to the Gary Steel Mills on Tuesday will include an inspection of the immense coke ovens and by-product plant.

Metallurgists and electrical engineers will be much interested in the demonstration to be made of the production of metallic tungsten and molybdenum at the plant of the Fansteel Products Company, North Chicago, on Tuesday, September 26th. As a part of the programme for the Chicago meeting, an excursion has been arranged to Milwaukee, to visit the various mining machinery plants in the vicinity, and a stop will be made en route at the Fansteel plant. The entire metallurgical process will be shown, from the preparation and purification of the commercial concentrates, and including sintering the pulverent metal obtained into homogeneous billets by the use of currents of enormously high amperage.

The National Exhibition of Chemical Industries is being held at the Coliseum, Chicago, the same week as the Institute Meeting. Members of the Institute have been extended an invitation to attend this exhibition.

THE "CANADIAN MINING JOURNAL" IN CHICAGO.

The Canadian Mining Journal, and the other technical periodicals published by the Industrial & Educational Press at Ste. Anne's will be "at home" in Booth 138 at the National Exposition of Chemical Industries from the 22nd to 28th September in Chicago.

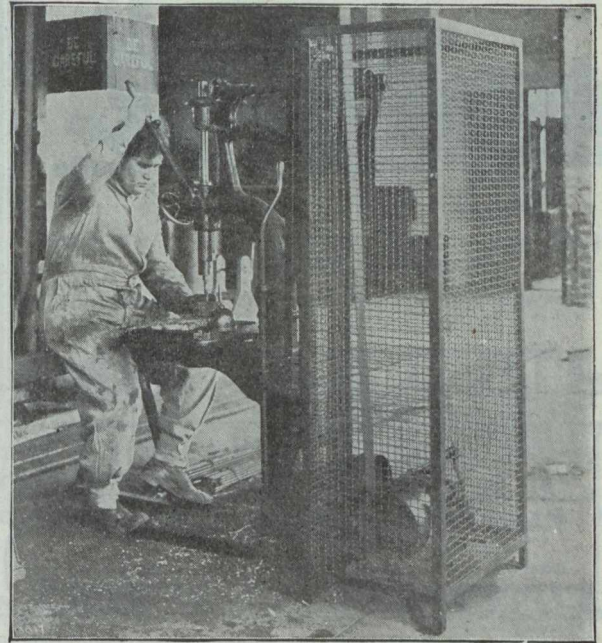
Mr. H. W. Thompson, the western advertising manager of the "Journal," with his assistants, will have charge of the booth.

A cordial invitation is extended to all friends and readers of the "Journal" to make themselves at home.

The other magazines of the Industrial & Educational Press, which will be represented are "Pulp & Paper Magazine of Canada," "Canadian Textile Journal," "Canadian Fisherman" and "Iron & Steel of Canada."

Isn't it a fact that most people have a sneaking admiration for the action of the German Admiral in scuttling his ships at Scapa Flow. And suppose — something that is unthinkable — that British ships should have been placed in a similar position, would not they have found the bottom? The incident occurred because the British Navy, for political reasons, were appointed guardians for the Allies, but not given the right to post a guard on the German ships. The Germans "put one over" on the Allies, but did not the laxity of the Allies invite the incident?

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PRINCE OF WALES VISITS HIS MINES IN THE DUCHY OF CORNWALL.

Previous issues of "Mine & Quarry" have described the great interest which Cornish mining men have taken during the past two years in the introduction of Sullivan diamond core-drills for prospecting in the mines of Cornwall. The accompanying photograph was taken on the occasion of a visit of the Prince of Wales, who is also the Duke of Cornwall and Devonshire, to the Kit Hill Mine in June, 1919. The "Western Morning News" of June 11th says, "Because of the enterprise of the Duchy management in installing up-to-date machinery, these mines are providing valuable quantities of tin and wolfram, the supplies of the latter having proved of great national service during the war. The Prince showed a decided aptitude for making the most of his time, and was shown, what is a novelty in Cornwall, the new Sullivan diamond-drill, which began its work of boring on May 28th. This drill bores out a core of rock about one inch in diameter, from which can be learnt the properties of the lode, the object of the drill being for prospecting. It has already bored about 120 feet, the average being about 12 feet per day (horizontal holes in single shifts) and its ultimate depth will be over 700 feet. The Prince spent some time watching the drill at work and displayed a very keen interest asking many questions relative to the working of the drill. Specimens of metal which had been extracted by the drill were also shown him."

The Prince in the photograph is shown close to the swivel-head, watching the machine work.

Mr. W. H. Seaman, Jr., has accepted a position with the Matachewan Gold Mines. His address is Elk Lake, Ont.

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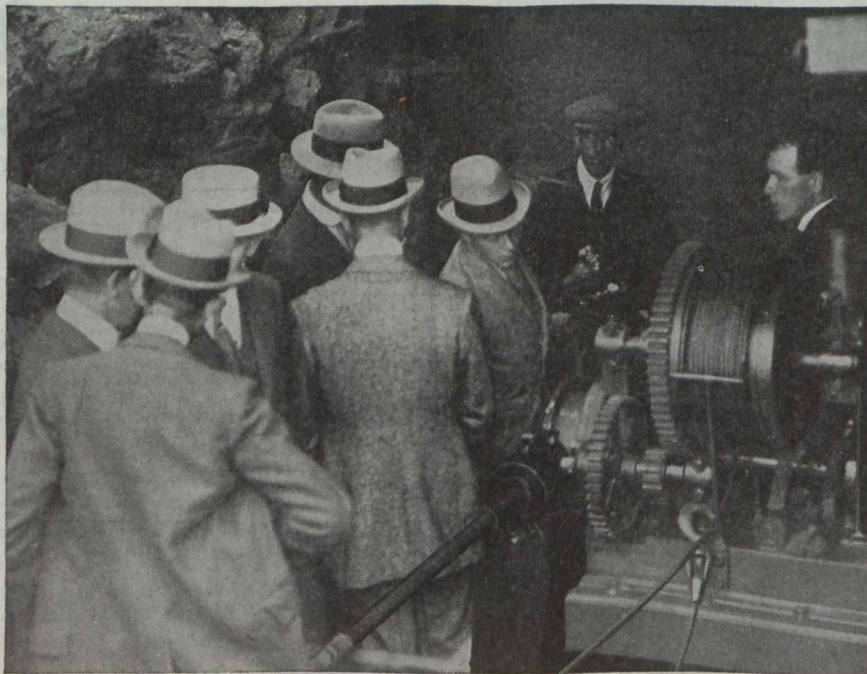
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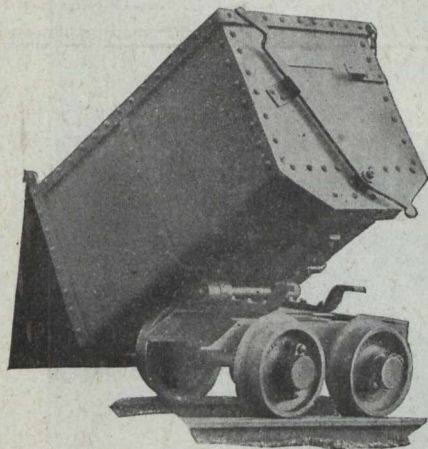
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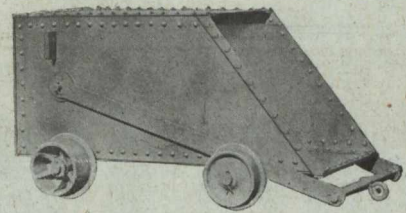
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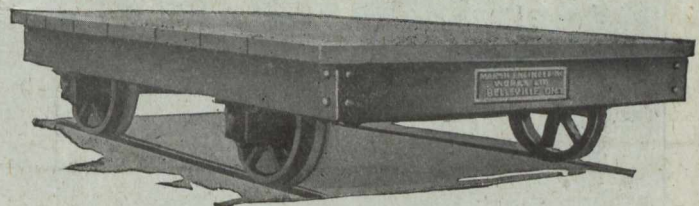
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7	Gen. Elec.	550	5 x 4 1/2 in.	Gen. Elec.	
7 1/2	Fairbanks Morse	350	8 x 10 in.	Fairbanks Morse	
10	"	525	5 1/2 x 5 in.	"	
15	Western Elec.	800	2 x 2 in.	Fuller	
25	United Elec.	325	8 x 10 in.	Robb Armstrong	
30	Westinghouse	350	9 x 15 x 9 in.	Westinghouse	
50	Bullock	275	12 x 12 in.	Payne	
50	Gen. Elec.	275	13 x 12 in.	Armington Sims	
62 1/2	Westinghouse			Robb Armstrong	
75	Westinghouse	750	125 h.p.	Phoenix	
150	Crocker Wheeler	225	18 x 17 in.	Harrisburg Fleming	
200	Can. Western Elec.		16 x 24 x 24 in.	Robb	
		220/250 Volts:			
60	Thompson Ryan	275	13 x 12 in.	McEwen	
62 1/2	Westinghouse	275	9 x 16 x 12 in.	Idé	
75	A. C. B.	275	11-18 x 11 in.	Shepherd	
75	Crocker Wheeler	275		Fleming Harrisburg	
75	Bullock	275	13 x 14 in.	Robb Armstrong	
130	Crocker Wheeler	225	16 in.	Buffalo, Twin cyl.	
150	Can. Gen. Elec.	230	17 x 16 in.	Leonard	
150	Fort Wayne	165	16 x 24 in.	Diesel	
150	Bullock	160	16 x 24 in.	"	
500	Fort Wayne	90	22-38 x 48 in.	Bates	
850	Westinghouse	80/90	26 1/2 x 44 1/4 in.	Allis Chalmers	
		500/550 Volts:			
300	Thomson Ryan	150	24 x 22 in.	McEwen	
500	Westinghouse	90	30 x 48 in.	Cooper Corliiss	

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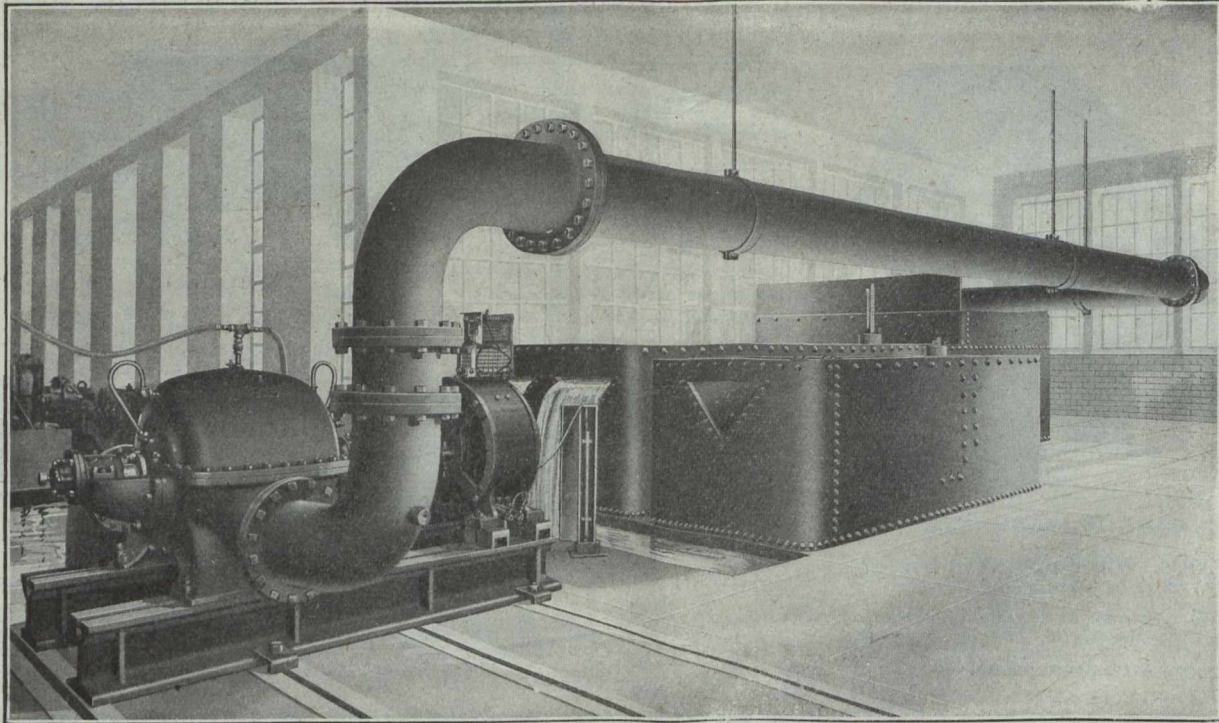
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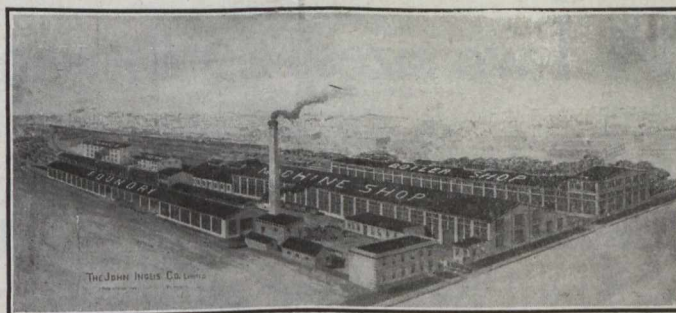
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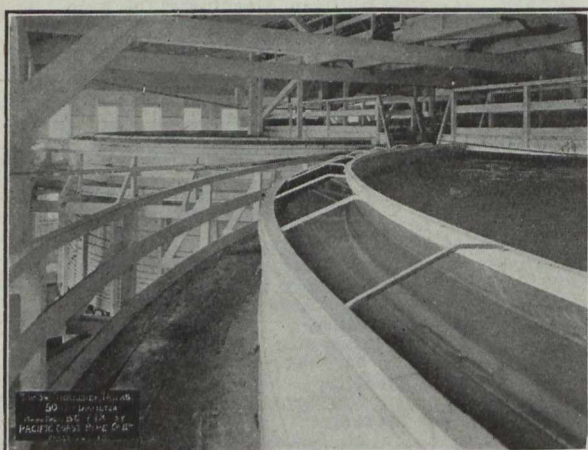
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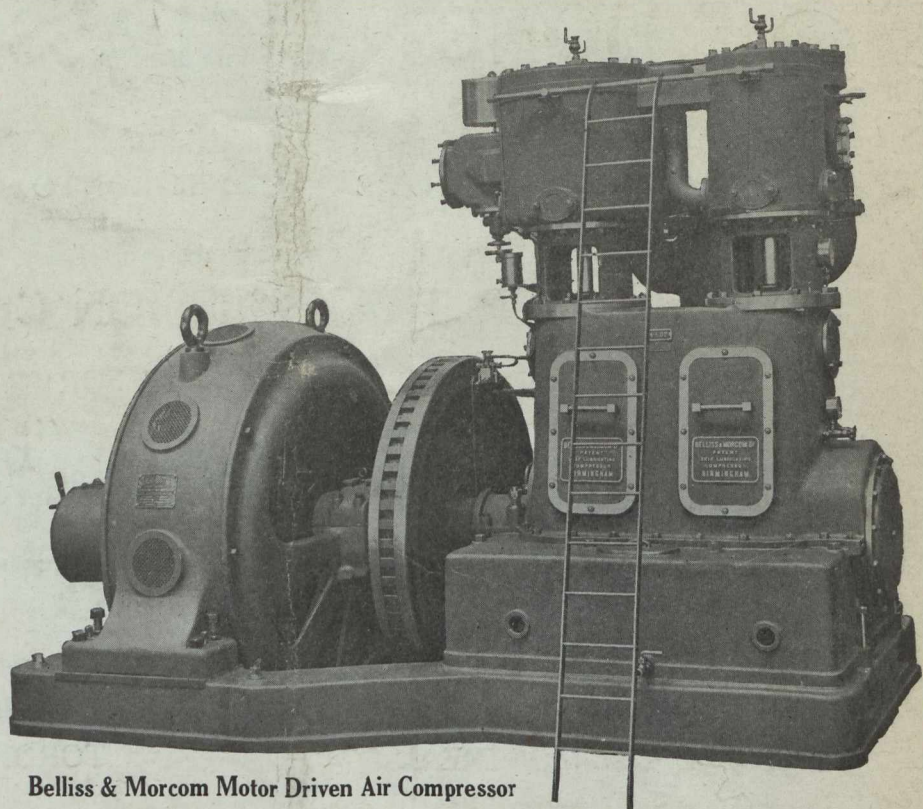
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