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RE

Limitation of the Hours of Labor of Underground Workmen in the Mines of Ontario

By S. PRICE

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THE LEGISLATIVE ASSEMBLY OF ONTARIO



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REPORT OF S. PRICE, Re LIMITATION OF THE HOURS OF LABOR
OF UNDERGROUND WORKMEN IN THE MINES OF ONTARIO.

THE HONOURABLE W. H. HEARST,
Minister of Lands, Forests and Mines.

DEAR SIR,—Pursuant to your instructions of 10th August, 1912, I have inquired into and considered the matter of legislation for the limitation of the hours of labor of underground workmen in the mines of Ontario and I now beg to make my report.

MODE AND NATURE OF INVESTIGATION.

My investigation has been for the most part informal. I have endeavored by personal examination and by inquiry from the men and the mine managers to ascertain and understand the nature of the underground employment in the mines, and the conditions under which the men work, and to gather what knowledge and information I could as to the effect which an eight hour law would be likely to have upon the mining industry. The fullest opportunity has been given for expression of the views of those chiefly concerned. Public meetings, advertised in the press and by posting up and distributing notices, were held in the most important mining centres and every one interested was invited to be present to make known his views, or to hand in or send me in writing anything he desired to say. The mine owners throughout the province have been communicated with and data collected from them regarding the number of men employed, the present hours of labor, the means of descent and ascent, the time taken for meals or rest and other matters which might have a bearing upon the question in hand. I personally visited a number of the mines in various parts of the province, spent considerable time underground seeing the men at work, and examining the character of their employment and the conditions surrounding it, and conversed with large numbers of the men and with their foremen and employers.

By these means and from petitions and letters, and other statements and material handed or sent to me by the men and the mine managers, by discussion with a large number of them, by taking a secret ballot from the men at a number of the mines, and by consultation with the mine inspectors and other officers of the province, and interviews with other disinterested persons having knowledge of mining affairs, I satisfied myself as fully as I could as to the views and wishes of both parties, and as to the facts and conditions having to do with the matter under inquiry.

I have obtained copies of and perused the eight hour laws in force in other countries, and collected what information I could get regarding their operation and effect.

The reports of Commissions elsewhere upon the eight hour question, and various articles and comment, opinions of political economists and other literature upon the subject, have also had consideration.

MINE WORKMEN AND IMPORTANCE OF MINING IN ONTARIO.

About 7,700 men in all are employed in and about the mines at which there are underground workings (excluding smelters, concentrators and mills not operated in immediate connection with the mine). Of these 7,700 about 4,000 are underground men, who would be directly affected by the proposed legislation. These 4,000 underground men are distributed among the different mining districts of the province approximately as follows:—Cobalt 1,800, Porcupine 440, Sudbury 1,000, Michipicoten 281, Elk Lake and Gowganda 74, Hastings and vicinity 154, Grand River district 57, various places in eastern Ontario 43, and in northwestern Ontario 124, the rest belonging to Swastika, Temagami and eastern Algoma.

There are no statistics as to the men's nationality, but the great majority of them are foreign born, especially in the Sudbury and Michipicoten districts, coming largely from Italy, Finland, Austria and Poland.

In most of the mines the greater number of the men are lodged and boarded by the mining company, being either unmarried or having a family living elsewhere.

The total annual wage list for these mines is over \$6,000,000, and if the smelters, concentrators and mills in the province were all included this would add some three or four million dollars more.

It need hardly be pointed out that by reason of this large wage bill and by reason of the great quantity of provisions, machinery and supplies of various kinds used in and about the mines, the province generally reaps great advantage from its mining industry. The enviable position which Ontario now occupies as easily the premier mining province of the Dominion, and one of the great mining districts of the world, is not only a matter to be proud of, but is something that brings substantial benefit to a large part of our population. The farmer, the merchant, the manufacturer, the railway man and many others of various occupations reap advantage from the prosperity of this industry, and all are interested in its welfare.

PRESENT HOURS AND CONDITIONS.

The present hours of labor underground vary from 8 to 10 hours, mines which are side by side often differing. Of the 86 mines from which complete returns have been received 40 work 10 hours a day, 32 work 9 hours, 10 work 8 hours, 2 between $8\frac{1}{2}$ and 9 hours and one works $9\frac{1}{2}$ hours. The average for the province would be a little over 9 hours. A number of what are called prospects, not included in the above, work more or less irregularly.

Taking the mines by districts: in the Cobalt district 13 mines work 10 hours, 14 work 9 hours and one works $9\frac{1}{2}$ hours. In the Elk Lake and Gowganda district one works 10 hours and 8 work 9 hours. In the Porcupine district 1 works 10 hours, 4 work 9 hours, one about $8\frac{2}{3}$ hours and 4 work 8 hours. In the Sudbury district 3 work 10 hours and 5 work 8 hours, but in the latter the half hour taken for dinner or lunch underground is not included, neither is the time taken in ascending and descending. In Michipicoten the men work 10 hours, as also generally in Hastings and eastern and western Ontario. In the Grand River district one mine works 10 hours and the other 8. In many mines, however, the hours on Saturday are from 1 to 3 less than on other days, though it seems as a rule the men are paid the ordinary day's wages. In most cases the time occupied descending and ascending is included in the above figures.

The depth of the mines varies all the way to 1,300 or 1,400 feet, but the great majority of the workings are less than 400 feet and very many of them less than

200 feet deep. In 46 of the mines the means of descent and ascent is by ladder, in 24 by lowering and hoisting of cage, in 13 both means are used and in 4 entrance is by tunnel or adit. The number of mines using the cage is increasing, but for depths not exceeding 200 feet the ladder seems preferable by reason of being safer, though the men as a rule no doubt generally prefer the cage.

Nearly all the mines in the chief mining districts work two shifts a day—a day and a night shift, each commencing at 7 o'clock morning or evening as the case may be and quitting at 6, 5, 4 or 3.30, an hour or less being usually taken for dinner or lunch about the middle of the period. When shafts are being sunk or other work is desired to be specially rushed three shifts a day of 8 hours each are usually put on. It might also be mentioned that for shaftsinking or other very wet work extra pay is generally allowed. Often the hours are shortened or changed on Saturdays by reason of Sunday intervening or to give a part holiday.

At Cobalt, Porcupine and Sudbury the men are usually paid by the day or the hour, though the contract system is to some extent used. In Michipicoten the men are paid, as far as possible, on the piece or contract system, getting so much per foot or so much per car for what they do, and in most cases their daily earnings are good. One of the mines in the Cobalt district gives the men who stay with them a year or over a bonus of 10 per cent. of their total year's wages. In other parts of the province systems of pay vary considerably.

The most numerous of the underground men are the shovellers, or muckers or trammers as they are called, and the drill runners (or "miners") and drill helpers. The larger or piston drills require 2 men to handle them but the smaller or hammer drills, which are now coming largely into use for stoping, need only one. There are also in many cases a large number of timbermen, and there are pumpmen and others, and sometimes blacksmiths or drill sharpeners underground, and shiftbosses, scalars and others are underground more or less regularly.

The supply of men generally, as well as I can ascertain, with some exceptions in the summer months, has been in most cases equal to the demand, though sometimes the mine managers would employ more if they could obtain them readily, and in many cases they have to be content with men having little experience in the work. Surface men, it is generally stated, are more often hard to obtain than underground men.

WHAT THE MEN SAY.

Careful inquiry and test by ballot, where that was considered desirable, satisfies me beyond doubt that the men, under whatever system of pay they are working, are nearly all in favor of an eight hour law. The meetings held at Porcupine and Cobalt, which were largely attended, and those at Sudbury, Marmora, Kingston, and elsewhere, at which the attendance was slight, expressed themselves unanimously, so far as the men were concerned, in favor of the eight hour legislation, and this after the matter had been explained and discussed and after the mine manager's statement declaring that it would involve a deduction in pay, had been read to them. Petitions purporting to be signed by a number of men at Elk Lake (not all however miners), and by nearly all the underground men of two of the important mines at Sudbury, and resolutions and addresses from the miners' unions, asking and arguing for the law, were presented to me. Owing, however, to statements from the mine managers that many of the men were really not in favor of the eight hour law, but against it, but that they sometimes did not like to say so, I determined to test the matter by distributing a ballot by which the men could

express their wishes secretly if they desired. Care was taken to include a number of the mines as to which I was satisfied the relations generally between the owners and the men were good. In nearly all the mines where the ballot was taken I am satisfied that the men as a rule are well treated and not at all dissatisfied in general with the way they are used by their employers. In a number of cases I know a good deal of pains have been taken by the employers to look after the men's welfare. The result of the ballot, however, was to show that even in these cases and in cases where the men did not belong to any miners' organization nearly all the men desired the eight hour law, 332 ballots being returned in favor of it and only 12 against it. Six of the ballots marked for it, however, had the words "with a minimum wage" written upon them, and 3 of those marked against it asked for a 9 hour day. The most significant feature in regard to this ballot was the fact that where the men are paid by the piece and depend for the amount of their pay on the amount of work they can do in a day they are almost as strongly for the law as in the places where the pay is by the day, and before the vote was taken the difference in their position as compared with other places and the effect the proposed law would have in reducing their pay, unless they could do as much work in eight hours as they are now doing in ten, was carefully pointed out and explained to them. As expressed at some of the meetings, the feeling of the men seemed to be "get the law passed anyway and see about the matter of pay afterwards."

The chief grounds urged are as follows: First, the humanitarian aspect—that working underground is working under unnatural and trying conditions, being away from the surface and the sunlight and in air more or less impure and inferior to the natural air, being often contaminated with fumes of gas and with injurious dust or particles from the drilling and other operations. They complain at Cobalt that the hydraulic air used in a large number of the mines there is not as good as the air of the ordinary compressor. It is a frequent occurrence they say in underground mines to have men overcome by gas from the blasting powder and sometimes to lose their lives thereby, and they say headache and sickness from the powder are common. They say that the work is dangerous and a strain on the system, and that the working places are often wet or damp and the work usually strenuous and more exhausting and harder on the constitution than similar work would be on the surface, and that the mining life of an underground miner is short. They claim that eight hours efficient work is all the ordinary man is capable of, and that exhaustion or dulling of faculties causes accidents to be more frequent in the latter part of a long shift. They point to the various other mining countries where the 8 hour law is in force, and ask why Ontario should not be as good as these. Some say that a better and more efficient class of men would be induced to come into Ontario if the hours of labor were as favorable as in British Columbia and the Western States. Many say that those who oppose reduction of hours think only of dividends and are willing to sacrifice the health of the men for money.

Others say they are in favor of the eight hour law because it is in conformity with the principles of socialism, and many frankly state that their object is to get as short hours and as much pay as possible.

Most of the men also claim that with proper system and management as much work can be done in eight hours as is now done in nine or ten, and that there would be no decrease in the output of the mines or increase in the cost of production. There will always, they say, be objections made to any change in existing conditions, and they claim that the cries of injury to the industry raised in other places when the law was being put in force there have proved ill-founded.

They urge that the eight hour law should apply to all mines, with no qualification or exemption, except only for cases of emergency where life or property is in imminent danger, and that it would be fatal to the usefulness of the law to exempt contract or piece work or to complicate the Act by special provisions or exemptions.

WHAT THE MINE MANAGERS SAY.

The mine managers generally oppose the eight hour law. Less than half a dozen are wholly in favor of it, a few are not strong one way or the other, while others would not object to it if it was made eight hours face to face and not bank to bank and provisions were inserted to meet special conditions and contingencies. Quite a number would have no objection to a nine hour day.

The arguments urged against the adoption of the eight hour legislation are very numerous, but those in which the greater number of its opponents concur are: That it would mean reduction of wages and consequent dissatisfaction of the men; that it would decrease the output and profits of the industry, make low grade propositions unworkable and discourage influx of capital; that the eight hour law has in fact had disastrous effects in British Columbia, Australia, and parts of the United States, and is driving capital and labor out of England and the United States; that the popular belief that underground employment on the present basis is injurious or objectionable is not correct, experience, the hospital records, and the fact that men prefer underground to surface work being appealed to in support of this contention; that legislation upon such a question is not wise, and that it would be inexpedient to disturb existing conditions, which it is claimed are generally satisfactory to the men who are willing to work.

It is also urged by a large number that, even if such a law were proper or desirable in very large mines or in more advanced stages of the industry, it is not justified in Ontario, where most of the mines are comparatively small and the industry largely in the development stage; and it is pointed out that while some of the mines pay very large dividends many others in different parts of the province have but a slight margin of profit and cannot bear increased expense.

By the Cobalt Mine Managers it is also urged that they have to compete in silver with Mexico, which has cheaper labor and less expense by reason of a warmer climate; that they have to pay supplementary revenue taxes and some of them royalties, and that freight and other charges are high; that a shorter day would necessitate greater speed and conduce to increase of accidents; that as the time of actual operation of the drills is only 6.45 hours a day, the rest of the 10 hour day being taken up in going to and from work, taking down and setting up drills, blasting, etc., a reduction of two hours in the working day would mean only 4.45 hours of actual drilling, and would therefore cause a reduction of 31 per cent. in the output and in the dividends.

Others object to the eight hour law on the ground that it is of socialistic tendency, and say that the agitation for it comes from undesirable foreign organizations, from agitators seeking their own personal advantage, and from those who are not willing to do an honest day's work under any conditions. Others, though not opposing the law in principle, point out that it would work harshly in their own particular cases. One requests that if any such law is passed it should be postponed for ten years so that he may have time to get out of the mining business.

LAWS IN OTHER PLACES.

Eight hour laws are now in force in the following places:

British Columbia (as to both coal and metalliferous mines).

Alberta (as to coal mines).

Great Britain (as to coal mines, stratified iron mines, slate mines, and fireclay mines. The practice in metalliferous mines also is to operate practically on the 8 hour basis).

France (as to coal mines).

California.

Colorado.

Idaho.

Missouri.

Montana.

Nevada.

Oregon.

Utah.

Washington.

Wyoming.

These laws vary considerably in detail. The eight hours under some of them is reckoned from bank to bank and under others face to face, while under several of them the time taken in descending and ascending is partly included and partly excluded. In some of them the time allowed for dinner, or lunch, and rest is excluded; in some special provision is made in respect of Saturday shifts, on account of Sunday, and to change of shifts, etc., and in nearly all of them exemption is provided for in cases of emergency where life or property is in danger. Some of them except men of certain occupations, and one or two exempt workings up to a limited state of development. In the English Act and one or two others the operator may extend the hours for a limited number of days during the year, and provision is made for suspension of the Act by Order-in-Council in case of imminent national danger or great emergency or economic disturbance. Most of the more recent Acts, including the English, the French, and the Alberta Acts, were not brought into force until a considerable time after they were passed, and in France the reduction of time was brought into force in three successive stages.

OPERATION AND EFFECT OF EIGHT HOUR LAWS.

In addition to what information I could glean from articles and reports and from interviews with persons having more or less knowledge of conditions in places where eight hours laws are in force, a number of the mine inspectors of British Columbia and of the Western States have been good enough to answer a list of questions which I submitted to them regarding the operation and effect of the law in their country, and to give me their opinion generally as to the expediency of such a law.

Chief Inspector Graham, of British Columbia, where the eight hour law has been for a long time in force, thinks it increased the cost of mining slightly, but very slightly, but that it does not decrease the output, though it may mean a reorganization of the working forces. He says the men unanimously and the operators generally favor its existence, and that instead of being injurious it is beneficial to the mining industry. He is decidedly in favor of having such a law. Inspector Strachan, of the Nicola valley district, gives answers generally much to the same

effect, but thinks the law does not increase the cost of operating, and believes the eight hour day is better for the company financially, and he says he has found none of the operators now desiring to have the day longer than eight hours, and he is even more strongly in favor of the eight hour law than the Chief Inspector. The inspector of the West Kootenay district thinks the eight hour law does decrease the output, but does not think it is injurious to mining industries, and thinks an eight hour law in mining is desirable.

Mr. Henahan, Commissioner of Mines, Colorado, where the eight hour law has been in force since 1904, thinks the law does not raise the cost of operating and that such a law is desirable in mining. He says the workmen favor it, and that the metalliferous mine operators generally favor it also. Mr. Bartholomew, Secretary of the Bureau of Mines, Missouri, which has had the eight hour law since 1899, is not prepared to answer as to the effect of the law on the output, but says the men and the operators generally favor its existence, and that he thinks it is desirable to have such a law. Inspector Walsh, of Montana, where the eight hour law came into force in 1907, does not think it raises the cost of operating and says that the men and in most cases the operators favor its existence, and his opinion is that the law is desirable in mining. Inspector Jones, of Wyoming, says the 8-hour law raises the cost of operating at first, but thinks, with proper adjustments to meet the altered conditions, this can be more than offset. He says the men favor its existence, but that the operators are not favorable to outside regulation. He thinks the law is desirable. State Inspector Bell, of Idaho, thinks the 8-hour law raises the cost of operating proportionately and decreases the output of the mine, but that the men and most of the operators favor its existence, and he thinks such a law is desirable in mining. State Mineralogist Storms, of California, where the 8 hour law has been in force since 1909, thinks it raises the operating tonnage cost and undoubtedly decreases the output. He says the men generally favor its existence, but some of the operators are opposed to it. He thinks, generally speaking, such a law is desirable in mining.

Mr. Sutherland (now Assistant Inspector of Mines in Ontario), who has had extensive practical experience in a number of the mining districts of the west, says the men and he thinks, generally, the operators favor the existence of the 8-hour law where it is in force, and he thinks it does not decrease the output of the mines and that it is not injurious to the mining industry.

As to the operation and effect of the 8-hour law in England, where it went into force in 1909 and 1910, all the information I have obtained has been derived from the inspectors' official reports and from information which Sir George Askwith, of the Industrial Commissioner's Department, has been kind enough to give me. It seems that owing to the customs and privileges which had grown up in different parts of the country some friction occurred at first as to a number of matters, but the law seems now to be working pretty smoothly. The comparatively short time it has been in force and the other labor disturbances that have occurred and the changes that have been made in other respects make it difficult to tell what are its effects. It does not appear to have decreased the output, but the chief inspector, while thinking there has been an increase in the working cost per ton, says it is impossible to say how far this is due to the operation of the "Eight Hours" Act. On the whole it would not appear that any very material economic effects are attributed to the operation of the law.

INDEPENDENT OPINION IN ONTARIO.

I have discussed the question of an 8-hour law very fully with our own mine inspectors and other officials and with other disinterested persons familiar with mining conditions. The inspectors, whose efficiency and usefulness I found in my visits to the mines to be held in high respect both by the operators and the men, naturally and properly do not wish unduly to take part in any controversy between the two parties, but their knowledge and experience in these matters and the opportunities they have had for understanding circumstances and conditions are such that it seemed to me imperative to obtain the benefit of their knowledge and opinion. It is chiefly upon the various points arising during the investigation that I have consulted them; some of the information they have given me upon these is more particularly referred to in other parts of the report, but I think it is right to say here that they and the other mining officials with whom I have discussed the eight hour day do not seem to fear evil results from it, and Inspector Sutherland is very strong in the belief that a reasonable eight hour law for underground workers would be beneficial.

I think the weight of well-informed independent opinion is in favor of the law.

REVIEW OF THE MATTER.

From what has already been stated I think it must be concluded that forebodings of disastrous results to the mining industry if an 8 hour bill is enacted are not justified. The mine managers do not produce any figures or evidence in support of their prediction that injury would result, except statements of a number of mining men who attribute their financial difficulties in whole or in part to the 8 hour law, and a reference to the closing down of a number of mines in British Columbia after the 8 hour bill went into effect. Other opinions, however, do not attribute these things to the reduction of the hours of labor. Inspector Sutherland and others think the trouble in British Columbia was due to other causes, and it may be pointed out that returns indicate that the past year's mining operations in British Columbia have been the most profitable in the history of the province. The strongest support I have found in favor of the contention that the mining industry would be injured is the refusal of the Commission on Hours of labor in Nova Scotia in 1910, to recommend the 8 hour day for the coal miners because they believed such a law would undoubtedly add to the cost of operating or seriously reduce wages, and because apparently they feared injury would in consequence result to the coal industry, which as they pointed out had to meet competition from other places.

In the British coal mines the average hours of labor prior to the enactment of the 8 hour law were about the same as we now have in Ontario, and the Commission dealt pretty fully with the matter of reduction of output which the owners claimed would result, and arrived at the conclusion that this would not be so great as claimed though they believed some diminution of production would follow. The actual effects, as already pointed out, seem at least no worse than the Commission anticipated.

With regard to the figures as to drill time submitted by the Cobalt Mine Managers, and the contention based thereon, which is very similar to what was urged by the coal mine operators in Great Britain, I am told by independent persons having knowledge of these matters that there is no reason why the actual drill time should not be a good deal longer than the contention indicates. I am

informed also that it is claimed by the managers of the mines in Ontario which are working on an 8 or a 9 hour basis that their costs are as low as those of 10 hour mines, and western shiftbosses and mine captains working in the Ontario mines claim that they can get as much work done in 8 hours as in 10. It is stated and admitted on nearly all sides that the amount of work done generally in the Ontario mines is not satisfactory for the time that is spent at it, and that in fact the efficiency of a great many of the men is not as high as it should be.

What the effect of the enactment of an 8 hour law would really be no one of course can definitely say. As pointed out in the report of the Miners' Eight Hour Day Committee in Great Britain in 1907, much would likely depend on the spirit in which the law was received and the efforts made to adapt operations to the new conditions, and to minimize friction between the men and the employers. Probably upon the whole the conclusion that would be most warranted is that while results might vary in different places or under different circumstances and while there might probably, generally speaking, be some increase in cost of production, the increase which may reasonably be feared is slight.

The fact that little or no injury would likely result to the industry or that the mine owners are able to stand a diminution of profits is no ground for a change or disturbance of conditions unless other reasons warrant or require it. Neither on the other hand I think would even material decrease in output and profits be reason for refusing the law if the conditions in regard to the health and welfare of the workers were so serious as imperatively to require it.

Turning to the latter question, I am convinced that the popular idea of hardship and injuriousness of working underground is only partly right. The mines of Ontario, I believe, as a whole, are naturally as healthful as any in the world. Figures and opinions show that there is little in the assertions regarding arsenic poisoning in the Cobalt mines, though, no doubt, through infection, that does in a few instances occur. There seems, however, to be better basis for the fear of harm arising from the breathing of the dust caused by the drilling and other operations, and especially from the hammer drills where no water is used to allay the dust, and particularly in the quartz workings. Phthisis or miners' consumption is at present a disease little known in Ontario, but the time has been short for its development and it is undoubtedly a matter to be considered and as far as possible guarded against. Our inspectors are fully alive to this necessity and no doubt will do their best to minimize the evil, but I may here mention that one of their difficulties is that the men are not always as willing as they should be to co-operate in precautionary measures. It is undoubtedly true that there is a good deal of powder gas in many of our mines and that this causes considerable trouble, and is more or less harmful even where the men are not actually overcome by it and no fatality occurs thereby. I think it cannot be questioned either that underground mining though not the most hazardous of occupations, must be distinctly classed as a hazardous one. The allegation of greater frequency of accidents in the latter hours of shifts I find after very careful investigation, assisted by the hospital records and other figures produced by the managers, and especially by the data put together for me by Chief Inspector Corkill, is not borne out by the facts. The figures really show that a rather larger percentage of the accidents take place during the early hours of the shift than during the later hours. Reports and opinions do not on the other hand confirm the allegation that shorter hours and consequent speeding up would be likely to increase accidents. Hospital records do not show a large percentage of sickness among the miners. The Commissioners in the British

8 hour day report already mentioned, find that the health and physique of coal miners in Great Britain compares favorably with that of other workpeople, although the 8 hour law was in fact adopted there. The best information I have been able to get shows metalliferous mines as a class to be generally less healthful than coal mines.

The prevailing view expressed in the reports received from the inspectors and other officials of British Columbia and the Western States, is that in their opinion underground work is more injurious to the health than surface work, and that there are special reasons why underground men should have shorter hours than other workmen. The 8 hour mining laws, as a rule at least, seem to be based upon that assumption, some of the United States statutes specifically so declaring. I am not unmindful in considering the above reports that officials will naturally be disposed to favor their own law, and that the employers whose opinions they refer to in support of the law may not feel disposed to complain of what they cannot help; nor do I forget that the exigency of the situation in the United States from a constitutional point of view may have something to do with the legislative declarations as to the injuriousness and danger of underground employment. Neither do I neglect what is said by the mine managers here, which I think is to a great extent true, that men after getting used to working underground prefer that to surface work; but higher wages and a certain fascination about it, and a sense of pride or dignity in having attained to a higher or more important stage in the mining occupation, probably account largely for the preference. Whatever the reason may be such a preference is not incompatible with the statement that the occupation is in fact unhealthy and injurious.

Undoubtedly the air in mines even under favorable conditions is not as good as ordinary air. It contains a smaller percentage of oxygen (especially where hydraulic air is used), is more or less laden with dust or small particles of rock or mineral and with powder gas—the prevalence of which, however, varies very greatly in different cases—and as natural ventilation is always poor other impurities also are pretty sure to be present. There is besides usually more or less water or dampness underground, though our inspectors say that as a class the Ontario mines would be considered dry in comparison with others. Working under these conditions, and always by artificial light, I think cannot reasonably be contended to be as good for the worker as working under ordinary conditions, and the element of danger may add something to the burden. It is estimated that 80 per cent. of the underground men are under 40 years of age and 90 per cent. under 50.

Upon consideration of everything I have been able to gather I think the conclusion must be that working underground is unhealthy and injurious, though not at all to as great an extent as is claimed by a number of the men or as is ordinarily believed by persons unfamiliar with mining conditions.

Some of the statements put forward as arguments for or against the law are not relevant. That the workmen have among them persons who favor the law upon grounds that do not commend themselves to the general community, or that they have in their ranks or in the organization to which a number of them belong, individuals who are not a credit to them, should not condemn their case if it is in fact meritorious; though I think the importance to any body of men of so controlling their members as to maintain public opinion upon their side can hardly be over-estimated. I should be sorry on the other hand to see any law put in force for no better reason than that those upon whom it may be assumed to be a burden are making large profits and are well able to bear it, even where that is the case.

The prevailing idea, however, that the mine owner gets his money easily is far from being always correct. While some of the mines may return investment a hundred fold and be almost able to pay their last year's wagebill from the mere advance in the price of their product, there are many where profits are very much smaller, and some where more money goes in than ever comes out. I have sometimes felt that the mine owners of Ontario have not always had the sympathy that they should have from the rest of the population, but objections on the ground of taxation and royalties, which have no relevancy in the present inquiry and which can only be regarded as complaints against what the people of the province generally regard as just and reasonable, can hardly be hoped to enlist public opinion in their favor. But this is beside the question.

A consideration which I think should have weight is the tendency the proposed legislation would likely have toward allaying unrest and removing friction and difficulty existing in a number of the mining camps. Taking out of the field of controversy and settling permanently what has been and will apparently likely otherwise continue to be a fruitful source of trouble between the employers and the men would of itself be a good deal gained. Sir George Askwith, speaking of the question generally, and Inspector Sutherland, speaking of conditions in Ontario particularly, are both of opinion that the 8-hour day will likely come sooner or later, or will be a source of agitation until it is obtained, and they both see advantages in establishing it now. The history of the matter in Ontario supports this view. There has been a gradual reduction in the length of the day in a number of the mining districts. The newer camp at Porcupine has, on the whole, considerably shorter hours than Cobalt, and lately the shorter day has been introduced in some of the mines in the older districts. As already mentioned, it is not only the miners' organizations that are wanting the shorter day, but also the men who neither belong to the union nor live in districts where unions exist, and those working by piece work or contract, as well as those working for day wages. This desire of the men for the law, I think, is an important consideration in estimating its desirability. It cannot, of course, be hoped that the legislation would settle all difficulties and wholly prevent strikes, but it would remove one of the chief causes of trouble.

I think there is something, too, in the contention that the shorter day would tend to greater skill and efficiency of the men, and that by improving conditions it would encourage a more permanent class of residents in the mining camps and lessen the very large remittances of wages now sent out of the country by those having no established home here.

RECOMMENDATIONS.

Everything considered, I think the balance is in favor of enacting a reasonable 8-hour law for underground workmen in the mines of Ontario.

Of the laws in force in other places, I think that in Great Britain is the most carefully devised, and that its principles should, in the main, be followed, with simplification of some of its provisions where that is possible.

Subject to proper safeguards for securing suitable means of descent and ascent, I would recommend that the law respecting metalliferous mines in British Columbia, and that in force in most of the Western United States, approximating closely in this respect to the laws of Great Britain and France, should be followed as to making the 8-hours from face to face rather than bank to bank.

The law, I think, should apply to contract and piece work, as well as work by the day, and men as well as employers should be obliged to observe it, notwithstanding any consent or agreement between them; otherwise I think the chief benefit of the law would be lost.

I think no overtime or deviation from the Act should be permitted except in emergencies where life or property is in danger and for repair work and an exception for Saturdays; but I think pumpmen and shiftbosses and persons engaged solely in surveying or measuring might properly be excepted from its provisions, and I think, having in view the conditions now prevailing at a number of the mines, the time taken for dinner or lunch, not exceeding half or at most three-quarters of an hour, should be excluded, and I do not think the usefulness of the Act would be materially impaired by exempting workings where not more than six men are employed in a shift. Very strong representations have been made to me in respect of the hardship an inelastic 8-hour law might entail in performance of development work, especially in out of the way districts, and I think this exemption might safely be conceded.

I would suggest that the mine managers, in order to be permitted to exclude the time taken in descending and ascending, should be required to obtain from the Mine Inspector a certificate that the means provided for descent and ascent are satisfactory. I think also the question as to whether a shift is in fact composed of more than six men should, in case of dispute, be determined by the Mine Inspector.

In answer to a question asked, I would say I do not think it would be desirable that, instead of enacting a positive 8-hour law, the fixing of the hours of labor should be left with a Board. That, I think, would be sure to cause trouble, and would destroy one of the chief benefits I see in passing the legislation.

I can see no harm in inserting a provision such as the British and Alberta Acts contain, empowering suspension of the law by Order-in-Council in the event of great emergency or grave economic disturbance.

The provision in the British Act allowing an extra hour during periods not exceeding 60 days in the year is, I think, unnecessary here, and would only tend to cause complication.

Following the course pursued in the enactment of similar laws in a number of other places, I think, in order to permit of preparation for it, the coming into effect of the Act should be postponed for a reasonable time—not less than six months—from its passing, and, perhaps, it would be but fair to postpone it longer in respect of the mines or the district where there have recently been strikes, as it might be considered a hardship upon the mines which, according to the findings of the Arbitration Board, have not been in the wrong, to disturb conditions again after so short an interval.

Faithfully submitted,

S. PRIOR.

St. Thomas, Ontario,
January 27, 1913.

