

MARITIME
MINING RECORD
 Dr. R. Bell
 Geol. survey dept.
AND
COAL AND METAL TRADES JOURNAL

*Cumberland. * Pictou. * Cape Breton. * Inverness*
 New Series Vol. 9 No. 2 JULY 25th., 1906 STELLARTON, N. S.

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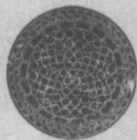
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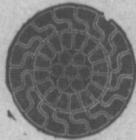
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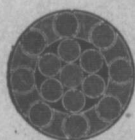
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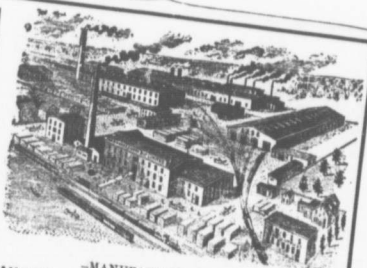


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101 Mixed for Pictou Landing	12.50
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66 Express for Pictou	18.40
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61 Express from Pictou	6.55
18 Express from New Glasgow	7.30
21 Express from Hopewell	7.35
55 Mixed from Truro	7.50
27 Mixed from New Glasgow	8.00
56 Mixed from Pictou	8.05
46 Express from Mulgrave	10.40
19 Express from Halifax and St. John	10.40
100 Mixed from Pictou	12.15
85 Express from Halifax, St. John, Quebec	12.45
29 Express from Sydney	12.55
22 Mixed from Pictou Landing	15.50
65 Express from Hopewell	16.10
86 Express from Pictou	18.10
62 Express from Sydney	18.45
17 Express from New Glasgow	19.30
66 Express from St. John and Halifax	21.05
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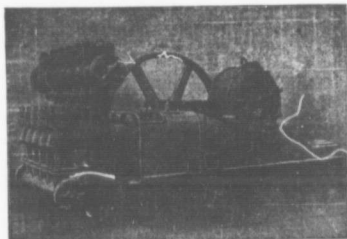
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ONE MAN'S VIEW. A well-known mining man recently finished an inspection of the ANTHRACITE coal fields of Pennsylvania. When asked what impressed him most, he said:

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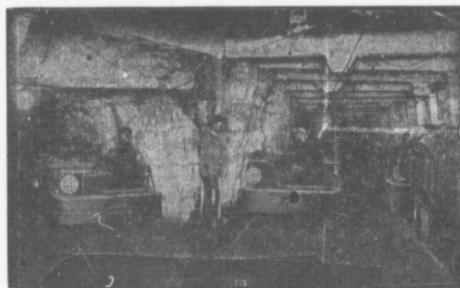
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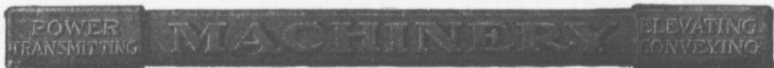
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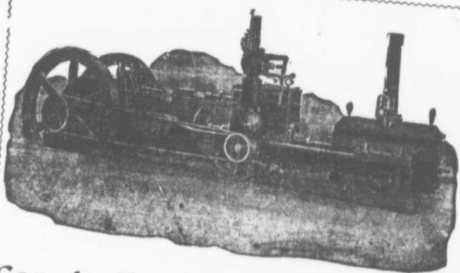


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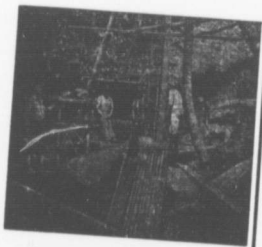
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That the use of electricity both increases the output of a mine and reduces the cost of production, is demonstrated by actual results.

The well known Canadian Westinghouse Company, makers of the famous Westinghouse electrical apparatus, cite two instances in their booklet (Electricity in Mines) of the great savings inaugurated by the employment of electricity.

In one, electric haulage has enabled a coal mine to double its output and at the same time to reduce the cost of haulage from eight cents to one cent per ton. The total yearly saving in this one item amounts to nearly 30 per cent, of the sum invested in the electric plant. In another, the substitution of Westinghouse motor driven pumps for steam—at a total cost of \$18,000, including Westinghouse Generators, Motors, Gears, etc.—resulted in an annual saving of nearly \$6,000 allowing for interest on the investment and depreciation of plant.

The...

MARITIME MINING RECORD

Vol. 8, No. 2. Stellarton, N. S., JULY 25th, 1906 New Series

THE TEMPERATURE OF A COAL GAS EXPLOSION.

The following appears in the Birmingham Post:—Our knowledge of what goes on inside the cylinder of a gas engine immediately after the explosion is becoming more and more advanced. At first it was enough that the heat caused by igniting a mixture of coal gas and air could be converted into useful work. Then investigators turned their attention to the effect of compressing the gas to some considerable pressure before the explosion took place. The next step was to measure the temperatures during the stroke of the gas engine cylinder. In all this work Professor Barstall played a pioneer part, and he is at present going more fully into various details which have arisen out of his experiments on the new engine in the University power-station at Bournbrook. Other scientists have carried out research work upon the gas-engine, but the results do not seem to have been considered as important as those of the Birmingham professor. At Cambridge an attempt has been made to investigate by means of platinum resistance thermometers the explosions of homogeneous mixtures of coal-gas and air at atmospheric pressure and temperature. The mixture was placed in a cylindrical vessel and fired by an electric spark at the centre. The platinum wire used for the thermometer was exactly one-thousandth part of an inch in diameter. When the flame approached the wire there was a sharp rise in its electrical resistance, and this could be easily measured, for the battery was placed in series with a battery of constant potential. If a thermometer be placed near the spark it is found that on ignition of the mixture there is a sudden rise of temperature to twelve hundred degrees Centigrade. It should be remembered that water will boil at one hundred degrees Centigrade, and therefore an idea of the enormous temperature at explosion may be gained. It has been found that if the gas is fired in a closed vessel, whose volume does not alter, there are differences of temperature as much as five hundred degrees centigrade in various parts of the vessel at maximum pressure after an explosion of this kind. With weaker mixtures of gas and air it was found that the spread of the flame was much slower. With one volume of gas mixed with twelve volumes of air it was found that two and a half seconds elapsed before all the gas was burnt. With a mixture of one volume of gas and nine volumes of air the flame spread rapidly from the spark, and all of the gas was completely burnt within one fortieth of a second. The results are used to explain the question of "after-burning" in the gas engine, and it is argued that the observed specific heat of the products of combustion, together with the loss of heat during the passage of the flame through the compression space, accounts for all of the peculiarities of the gas engine diagram! Progress in the design of internal combustion engines will probably result from

these scientific investigations, and it is to be noticed with great pleasure that the Institution of Mechanical Engineers are determined to continue their researches on such problems.

POLICE-RIDDEN GERMANY.

In an article in the Western Mail dealing with the Miners International Congress, Mr. William Brace M. P. says:—Quite a number of people were amused at the action taken by Mr. Stanton in calling the attention of the congress to the probability of there being an Austrian spy watching the proceedings of the delegates in the next room; but, however funny it may appear to prosaic Britishers with their full enjoyment of freedom to conduct their business and gatherings without fear or favour, it may mean anything but a joke to the representatives of Germany, and Austria especially. It is not so many years since Mr. Schroeder had to undergo a lengthy period of imprisonment for daring to attend an international miners' congress as a delegate, and even now when we take the congress to those countries the business has to be conducted more or less under the guidance of the police. About three years ago the congress was held at Dusseldorf, and during the whole of the sitting an inspector of police, with an official shorthand writer in police uniform, was in attendance, sitting on the platform by the side of the officials. It is true to say we were not interfered with, but had anything been done or said contrary to what the police inspector thought was right, he would have had the proceedings stopped, and doubtless, any delegate who had trespassed would have been penalised. With such restrictions ever present with them, one was not surprised when a German delegate stated that one of the most striking sights he had seen in London was the liberty enjoyed by the people to meet in Hyde Park, and to be addressed by speakers without the slightest interference by anyone, and that he should go back home and commence an agitation for the same freedom in his own country. Truly, with all our shortcomings, we are a common sense people, possessing in a very full degree the instinct of justice and fairplay, at least so far as free speech is concerned.

One of the biggest deals in connection with contracts given out by the Grand Trunk Pacific is that just consummated with Rhodes Curry & Co. of Amherst, N. S. The contract is for two thousand five hundred cars, which are to be delivered in lots of five hundred each, but the contract time for the delivery of the entire lot will extend over five years. It is expected, however, that about one thousand will be required within the next fifteen months. The amount of this contract in cash is a little over two million dollars.

EXPLOSIONS IN COAL MINES.

Mr. B. H. Thwaite was the author of an important paper brought before the Institution of Mining Engineers at Manchester, at which the question was discussed: "Can explosions in coal mines, with their associated toxic fatalities, be prevented?" Mr. Thwaite thought the question might be answered by a direct negative. However perfect the precautions were in theory, the prevention of explosions in the workings of the marsh gas exuding from carbonaceous strata would never be possible in the absolute. He saw one gleam of light, however, in the depressing gloom. It would be possible in the future to prevent the death of, say, eight out of ten men who died through the toxic influence of carbon monoxide that was produced by the partial oxidation of the marsh gas. The coal-dust extension of the gas flame was the principal source of that gaseous element which Dr. Haldane had put as the prime cause of 70 to 90 per cent of the deaths resulting from an ordinary coal mine explosion. This element was carbon monoxide, the highly toxic character of which was now becoming generally recognized. It was pretty certain that the latter was the igniting agent of the marsh gas produced—coal dust—and therefore, neglecting the small coal dust was removed from the workings as produced, if this the toxic dangers to life associated with marsh gas explosions in coal mines, which they knew to be responsible for from 75 to 90 per cent of the fatalities, would rate among coal miners from phthisis, owing to the septic effect of the inhalation of finely divided coal or carbonaceous dust. Direct experience will alone absolutely determine how far it is possible to remove the coal dust without detriment to the healthfulness of coal miners, and the author suggests that the Government might initiate such an investigation. But assuming that the coal dust environment of the coal miner were permitted to remain as it is, will it be possible to prevent or reduce the deaths from toxic effects? An affirmative answer may at once be given, and for the following reason. It is generally known that oxygen is the best antidote for the toxic influence of carbon monoxide. Of course, pure air expels carbon monoxide from the haemoglobin of blood, but pure oxygen will do the work five times more rapidly. Now a supply of oxygen could be established along the line of working operations in a coal mine, and in such a way that it would automatically escape whenever an explosion of marsh gas occurred; through nozzles at different points along which the flame was propagated, setting up at the same time the whistling or audible sounds, so that even in the darkest mine the victims would be able to find their way by creeping or walking to the nozzles of escaping oxygen, the flow of which would continue as long as was required to permit the rescue party to find the victims and remove them, a duty that would be easily performed, because the location of the danger zone would be sharply defined by the whistling noise of the escaping oxygen. Such a method constituted the basis of a recent invention,—"Science and Art of Mining."

The Malay Peninsula is the great tin producing region of the world at the present day, and the States with the largest output are under British protection.

Preparations on a grand scale are being made by the Dominion Commission for the Dominion Exhibition which will open its gates in Halifax to the public on September 22 and keep them open for two weeks.

The new Administration Building for the Grand Entertainment proceedings in Court regarding expropriation had not been taken place, but the building will be located on a site different from that proposed. The public will be in no wise inconvenienced by the change. Should the occasion ever arise, under which another site for this building should be determined upon, the edifice will be easily moved, and construction of the foundations will be such that this can be done without difficulty. The new building will be erected close to the other new buildings added during last year to the splendid equipment on the Exhibition Grounds.

Manager Hall says that inquiries for space are coming in from all parts of the Dominion, and he reiterates the hope previously expressed, that the people of the Maritime Province will avail themselves of every opportunity at their disposal to make a good showing for this branch of agriculture or other industry. The Exhibition will be worthy of all that can be done to make it still more useful and attractive.

In mining education two standards are required. A good deal of the work of the mining-engineer is what was once described to Mr. Gregory as "bushwacking." The miner has himself to provide take so many different functions, quarrying, water-supply, railway and bridge building, and the erection of work-shops, crushing plants and smelters, and he often has to do this preliminary work so hastily that his methods must be somewhat rough and ready. The course at the Polytechnic Institute at Troy involves an extremely high standard of mathematical teaching; and in such a country as America there is a sufficient demand for engineers with highly specialised mathematical training to maintain a school with such an advanced course. But many men will make efficient working engineers although they may not have sufficiently mathematical minds to profit by the Troy system. In the same way in this country, it is necessary to train colliery managers, who may be thoroughly efficient in their own work, without undergoing the wide training of a fully qualified mining engineer. Provision has therefore to be made for mining schools with the double standard of a diploma course for colliery managers and the managers of small mines; and the higher degree course for those who are able to give the necessary time for the four years of advanced study.

Mr. John Burns, M. P. opened a new municipal electricity station at Southwick, Brighton, which has been provided at a cost of £300,000. He mentioned that in 1881 he built the first electric tramcar in this country and ran it round the grounds of the Crystal Palace for six months before people could be induced to believe that electric traction was possible, even as a toy experiment. Not to be overcome, he induced his sweetheart, Palace occasionally and get into the electric car to act as 'decoy ducks' for other passengers. Mr. Burns declared that in the United Kingdom we have, municipal servants of probity and efficiency; and, speaking broadly and generally, we have the most disinterested group of councillors in the world.

MARITIME MINING RECORD.

The MARITIME MINING RECORD is published the second and fourth Wednesday in each month.

The RECORD is devoted to the Mining—particularly Coal Mining—Industries of the Maritime Provinces.

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STELLARTON, N. S.

JULY 25th, 1906

Says the Suburban:—"We are sorry to find the editor of the Record defending the essential principles of a combine." Well the editor of the Record has not set himself the task of discovering what these principles are, therefore if he is defending them there cannot be much wrong with them, as he defends only what he deems to be right. We have been defending, perhaps, the coal companies against the charge of being extortionists, of being so utterly selfish that they do not care what harm they do to others so long as they themselves are benefited. We have produced evidence from many quarters to prove that if the price of coal is high, there are good and sufficient reasons why it is so. We have shown that if the price of coal has gone up within the past five years, the increase was made necessary, by the great increase in wages, by the enhanced cost of materials necessary to mining, and by the growing depths of our mines. We have produced figures, which cannot be disputed, to show that colliery workers in very many cases are making twice the wages they did four or five years ago, and that while part of the increase is due to steadier work, the biggest part is due to increase in rates for contract as well as day's labor. The contentions of the Record, as regards increased cost of production have not been met, indeed no attempt has been made to meet them fairly. Instead we have had as arguments such misleading half truths as the following "The coal mines of Nova Scotia are wonderfully well placed by nature for cheap transportation. Far from there being anything in their situation to justify dear coal, they are intended by nature to give us an advantage over all other countries". Nature has not been so very indulgent as at first blush might appear. It is true that our mines are at comparatively short distances from tide water. Had nature placed them as remote from shipping points as are the mines in, say, Virginia, then nature had rendered any development of coal mining in Nova Scotia impossible, now or for ages to come. Nature is not a stranger to the law of compensation, if some Nova Scotians are. If she placed the mines of Virginia at great distances from tide water she more than compensates for that by giving Virginia a splendid article of coal, easily mined, being of easy angle, requiring little timbering, and no expensive pumping machinery, and therefore coal that can be produced cheaply, so cheaply indeed, that what Virginia may lose in comparison with Nova Scotia on account of distance from tide water is far more than made

up. Nature has been so kind to a majority of the coal mining districts in the U. S., by giving coal easily and unexpensively worked that the kindness shown to Nova Scotia in the matter of transportation facilities, falls very far short in comparison—in proportion. The mines in parts of the U. S. can bring coal to the surface and transport it 300 miles by railway, as cheaply as a majority of the collieries in Nova Scotia can put it on cars at the pit.

- Rubs by Rambler.

Some wise men from the east, in other words, some recently arrived Scotsmen, have taken possession of the P. W. A. lodge at Sydney Mines, and are trying to introduce some old, new fangled notions. Some of these base their claim, to be heard, on the fact that they have sat at the feet of Keir Hardie, whose strong and only prominent characteristic is his oddity. He may be a smart man in his way; he is decidedly outre. And so are his following. They have a desire to be unlike ordinary, decent citizens. They are in a hurry to turn things, especially the P. W. A., upside down. It is too slow, and too stupid. But what do these Scotsmen know of a well regulated trades union. Outside of Weir's organization in Fifeshire, can they point to a thorough miners' organization in Scotland. How long ago is it since a leader was chosen in Ayrshire, Lanarkshire, etc, not so much on account of his fitness, as on his ability to make promises. Has there been a competent leader since Alex McDonald left the stage. Men who are union men by fits and starts, when there is anything to be made out of it, only, at once, are not quite the men one would think to tell the members of a society which has an unbroken record of advancement for twenty-seven years, how they should conduct it. These new comers propose that the Grand Secy should not be elected at Grand Council, but by the lodges in a cumbersome way. This would mean that the old Secy would require to be at the beck and call of each lodge. If he did not do what a lodge wanted then it would threaten to cast its vote against him first opportunity, just as the man who is not sick threatens to punish the doctor, or the chairman of the relief committee. The Grand Secy has served its purpose admirably, just as the P. W. A. is fulfilling its mission. An innovation which is not a reform should find no favor, and therefore the proposed innovation in the mode of election of Grand Secy, should be rejected without palaver. Instead of being a reform the proposed mode of election would lead to bickerings and jealousies, and be a hindrance to efficiency. Talk about New Zealand and its advanced labor legislation, why, for real progress, and comfort, for real harmony between employers and employees New Zealand is not once in it with Nova Scotia.

Is it not strange that an exaggerated statement finds favor quicker than a simple statement of fact. Here we have an instance in the Truro News and one of its correspondents. They actually affect to believe the Suburban's statement that coal costs dearer in Nova Scotia than in Montreal; that it costs twice as much as it did ten years ago. The fact is, as pointed out in the Record more than once, there is little or no consumption of soft coal in Montreal for domestic purposes, therefore there can be no true comparison between the price in Montreal and the price at retail in Halifax. The Record also gave figures showing that the smaller manufacturing coal consumers in Montreal paid much dearer for their coal than did consumers of a similar class in Halifax or other parts of N. S. The Record has clearly demonstrated that coal to manufacturers is not dearer in Nova Scotia than Montreal. In contradiction it has been stated that the I. C. R. pays more for its coal at the mines than does the G. T. R. at Montreal. That is true, but because it is not the whole truth it is misleading. The I. C. R. demands screened coal; the G. T. R. is content with run-o-mine. That means a difference of perhaps fifty cents a ton. The G. T. R. takes the coal in five to seven thousand ton ship loads, whereas the I. C. R. takes it in from 6 ton hoppers to 30 ton gondolas and takes it not when it suits the company, but when it suits the railway. That means at least other fifty cents a ton. Therefore, in fact the I. C. R. does not pay as much as the G. T. R. for its coal.

The Suburban gravely asserts that the Dominion Coal Co. does not keep up the price of coal to enable the companies in Cumberland and Pictou to do business, but to enable it to pay a dividend of fifteen millions of common stock, mostly water, as the company is not paying dividends on its common stock, neither on the portion watered or safe on the portion left in its original arid state, it is price up high enough. I wonder if friend McNeil—McNeil and the Suburban are interchangeable terms, or as some may prefer to say, synonymous—is forgetful for the time of that axiom to be found in holy writ "Let him that is without sin among you first cast a stone," or that awfully hackneyed saying, not exactly found there, "People in glass houses should not throw stones." If the Dominion Coal Co. has a certain quantity of stock mostly water, I think I know of another company of which a similar thing may be said. I will not go into particulars unless obliged in fair argument to do so. The Suburban should know there are different modes of making stock absorb water. Perhaps I should put it this way: Water can be made to absorb stock, and stock can be made to absorb water. The distiller who sends out his stuff five per cent under proof has attained the same object as the retailer who adds fifteen gallons of water to his ten over spirits. If the one is the rogue so is the other. And yet I don't say either did a great wrong for the stuff at 95 might be of the consistency to do the least harm. And so with stock. If the Dominion Coal Co., or the other company I have in my mind, administered a portion to the stock, it may have been that the stock in the first instance was

too cheap, and would have had on this account a bad effect, in what particular direction, I beg to be excused at the present moment from relating. There may be in the foregoing a parabolic flavor, only, but that should be sufficiently strong to convey a hint.

Dalhousie is making a big effort to perfect arrangements for classes at the mining districts the coming fall and winter. It is very strange that the antagonism to the carrying out of these classes with success exists in some localities. The impression got abroad last year, and has not yet been wholly dispelled, that these classes were intended in course of time, to supplant the excellent government mining schools in successful operation for a number of years. There was not any good grounds whatever for this suspicion. The thought never entered the minds of the government nor of the college authorities. It was never intended that the mining schools would be the alpha and the omega of technical instruction for miners. They were instituted to supply an apparent need, but it was never intended that they should fully meet all needs for all time to come. They are still needed and will be still carried on as of old. But between the knowledge to be acquired at the mining schools, and that imparted in a thoroughly equipped college, there is, it must be admitted, a rather big gap. To fill that gap is the chief, indeed it may be said is the one object of the governors of Dalhousie College. If it is desired to stop or discourage the bringing in of men from other countries to fill the more important positions in the mining centres, then it is necessary that larger and more advanced facilities for technical education be afforded than can be supplied by the mining schools, excellent though they be in their way, a necessarily limited way. Thousands upon thousands of dollars annually go out of Nova Scotia to correspondence schools. These are good in their way, and no one will deny that they have accomplished good. But after all is said that can be in their favor, they are not to be compared to the living voice—to instruction conveyed by the mouth. Were there not facilities with a reach at home for securing all the knowledge that may be gained by correspondence schools, there might be an excuse for so many Nova Scotians taking courses in alien institutions. But at home all the knowledge, and more, that can be acquired from outside schools can be acquired within our own borders, and be it noted, at less expense. Our miners in matters of general interest, in all things pertaining to material and social advancement are striving after the best, why should they not also strive after the best in educational lines. Let it be taken for granted that the mining schools shall not be interfered with until it is demonstrated that they have ceased to be useful.

There are those who come to the conclusion at a jump that the scarcity of unskilled labor question up for discussion at the present time is one of easy solution. A writer in the Herald says "increase the rate of wages and the trick is done," and the Sec'y of a free trade, or tariff, league hastens to the support of this sort of which—league hastens to the support of this sort of ver. People should avoid attempts to solve pro-

blems, that are above and beyond them. Of course if the Dominion, or other, coal company was to offer two dollars a day to unskilled labor it would get all of it that was required. But that would be anything but a solution of the question, for the drawing, by means of higher wages, to its works, of laborers, would mean the draining from some other company. If the coal companies gave unskilled laborers as high a wage as skilled, they would get all the loaders they might require, but at the expense of reduced output in the mines by a falling off in the skilled labor supply. It is not the low wage that is the cause of the short supply of labor, but the great demand all over Canada for men to work in the mine, the mill, the factory and the farm. The demand is strong, and the supply is short, and higher wages would not cause labor to be more abundant, at all centres, unless indeed they brought flocks of immigrants from other lands. The writer in the Herald seems to forget that labor was far more abundant at the mines when labor was low, than now when it is high. It might be foolish to offer wages that would attract at once crowds of outsiders. Trade is not always going to keep as brisk as at present, and should it fall off, and the labor market become glutted, then high wages as an inducement to attract to a particular locality, instead of having proved a solution will be found to have made the question more perplexing. We may expect to peeh pooh the law of supply and demand, but it is inexorable. Labor is scarce because the present demand is greater than the supply, and higher wages could not well help to an immediate supply so far as Canada generally is concerned. If the farmers in the west induce by higher wages, laborers to go there from the east, Canada as a whole is not benefited greatly, for what the west gains the east loses. A solution of the difficulty might be the importation of foreign laborers, the semi-savages of Continental Europe, but better far to bear the ills and inconveniences we have than have added to our population so undesirable a class. Better that labor should be a little scarce, than over abundant. Things will find their level by and by.

In the matter of old age pensions I see one paper at least is taking credit for doing what it did not do. Several months ago this paper called loudly for old age pensions to miners. There was nothing said about the miners contributing to the scheme, indeed the impression was plainly conveyed that the government should be the burden bearer in producing the necessary funds. The Record took the ground that self-respecting miners did not want any pension scheme formulated after such a fashion, that a scheme of that kind would have if anything a pauperizing effect. The Record claimed that if there was to be a pension scheme which would not carry with it the odium of charity it would have to be so wide that prince as well as pauper should be participants. The Record contended at that time that the Relief Societies could have their operations so extended, that a separate pension scheme would be unnecessary. It is not displeasing to discover that the Record's views are being endorsed, if I may not say appropriated, in other quarters. I am an out and out believer in the help self, or

self help school. I do not believe the state, society in general or a society in particular should do for men what they are well able to do for themselves. Why should the state make provision for the old age of miners, while it makes no provision for the more numerous lower paid classes of clerks and shop assistants. The state must have no step children. At the time the Record took the ground above referred to it also threw out the hint that old age pensions might prove a delusion and a snare in this country of comfortable if not luxurious living. I said that a pension of two dollars and a half a week might only tend to accentuate poverty. Such a small rate of relief was ridiculed. Well what do we find? That those who did so now enthusiastically quote what an Australian Royal Commission approves of. Here it is:

"The commission has made a unanimous report in favor of a system of pensions for the benefit of all reputable persons of the age of 65 (or of 60 if disabled), such pensions to be regarded "not as a charity but as a right." The cost of the federal system is to be charged upon the general consolidated revenue. Every British white subject of the commonwealth is to receive \$2.50 a week, unless he has other sources of income, in which case he is to get less or nothing at all. Those who are worth \$1,150 or more are entitled to no payment from the public treasury. It is estimated that the proposed system will entail, for the present, an annual expense of \$7,500,000.

These proposals and measures show that social amelioration and social legislation are still the order of the day in progressive countries."

It will be noticed that a man who is worth \$1,150 is not to be a pensioner. This is most peculiar and may have but one effect, viz. to force the man to spend his savings before he reaches the age of 65, as even \$2.50 a week is better far than a sum in hand of \$1,150

In a new country like Canada there is no crying need for a pension scheme. There are other reforms that might receive prior attention. Why is not the miner as able to make provision for old age as the clerk or the bookkeeper. He receives as high a wage. To say that he cannot make provision or save for the future is a reflection on his intelligence or on his morals. He either lacks judgement or he lacks will. But he lacks neither and therefore it is that there is no agitation among the well doing and the industrious miners for old age pensions. Of course there are shouters for old age pensions who do not know what they are shouting for. To them it matters not whether the thing shouted for is indefinite or intangible. Anything for a cry. Where there is a sturdy manhood no cry for old age pensions is heard. Of course we will ever have with us the unfortunate, or afflicted poor, those maimed, those lame, and those blind. For such as these provision must be made as they cannot make it for themselves. But just yet there is no need of providing for the able bodied. If they have sufficient sand in them they can make provision for themselves either as individuals or as members of some fraternal association. If they work steadily with the wages presently going, the majority of the miners can make provision fit for a

prince. There are certain people in all communities who think they should be fed with government paps; there are certain communities who cannot limp without the aid of government crutches and there are certain cities that would tumble to decay but for government propping. Instead of the miners taking these as examples, let them stand on their own legs, and work out their own salvation—uplifting, advancement.

Those who desire purity in elections can scarcely join the party press in their glee that the Halifax contested election case was thrown out of court or, as the Chronicle puts it, bowled out, on a technicality. Honest party men, on the other side would rather that the case had been dismissed on the grounds that no proof of disqualification had been submitted. If the law regarding bribery at elections is too drastic, if a member may be unseated on grounds which a majority may consider trivial, then let the law be amended. Far better there should be no law on the subject than that the law should be a comedy. How can the command manly, if the very law makers, are tricky, and try by any and every quirk to make law a laughing stock. If those against whom petitions were laid were guiltless of any breach of the bribery law, why did not they face the music like brave men. The very fact that they sought to avoid service is suspicious. Of course it may be said that the petitioners would do the very same acts of which they desired to convict the respondents. What of that? Two blacks don't make a white. Talk about the Scott Act, it never was the howling farce that the election law is.

A writer in the Halifax Herald takes the ground, in at least one point, taken by the Record several months ago, in regard to old age pensions. He writes: "Regarding the 'old age pension' proposition, the question is asked 'whom do you propose to pension?' and then it is argued, 'if you pension the needy only it will simply be a repetition of the principle laid down in the public charities act of the province.'"

In the estimation of the writer the point is well taken if only the needy are pensioned, but in common with many others, he holds that the pension should be general. Rich, well-to-do and poor should be included.

I can scarcely concur in the soundness of the argument in favor of pensions advanced by the writer of the foregoing, particularly when he says:

"The soldiers and sailors of the empire, when the age limit is passed, are pensioned off for the remainder of their lives, on the ground that they gave their vigorous manhood to the defence of the country. Why should not those who fight and win the industrial battles of the country be treated likewise? Not only those who fight the industrial, but the professional and commercial battles as well."

The analogy is far from perfect. Sailors and soldiers are the servants of the whole people, do not serve a particular employer. If there is gain from their service then the whole country participates in their profit. If the people paid the sailors and the soldiers from two to four dollars a day for a short days work, then I am not quite so sure the people would think they were under obligations to make old service retiring allowance. Old age pensions are a good deal of a delusion. The ideal of workmen should not be old age pensions, but a

wage sufficient to enable them to make provision for the future as well as the present. I might go the length of saying I believe in compulsory provision as surely as I words juxta-position may seem anomalous.

The argument of certain partizan papers, against clergymen interfering in politics, will apply with equal force to a clergyman opening his mouth in the pulpit on almost every day topic or on any matter whatsoever. For instance, here is the argument of the Amherst News. "The average intelligent citizen is generally just as well informed, if not better than the clergyman and he does not desire his advice as to how he should vote." Very well, let me put it another way: The average citizen knows just as well as, if not better than, the clergyman, what is set forth in the moral law, and he does not desire his advice as to who he will worship, what day he should keep holy, what language should be in his heart, what his thoughts should be in his heart, what his conduct towards his parents should be, what, his relations to his neighbors; what things he should not appropriate, what things he should not even covet, and what, in short his general conduct should be. The average citizen knows just where he should stand, and yet it is not considered bad form for a clergyman to remind him of his duty.

Our colliery workers claim, and we will not say their claim is without force, that the law that applies to a workman, for a breach of the Mines Regulation Act, should also apply to the bosses. Indeed at last session of the local house they applied for an amendment to the law, which was granted, and which enables a workman to have a boss, guilty of a breach of the law punished only one way. If they insist on putting the gander on the same footing, in one point or respect, as the goose, they must, to be fair, place the goose on the same footing, in an analogous respect, as the gander. In demanding a square deal they don't mean a half of a square but fair play all round. Coming at once to the point; will the M. P. P. for Cumberland County, or Brother Gillies from C. B. or the Gd. Master or the Gd. Sec'y of the P. W. A. be good enough to show us why a boss may have his certificate taken from him, if convicted of drunkenness or gross negligence, and a miner or an engineman be liable to no such drastic discipline. The point may be raised—it would only be a quibble—that a boss cannot be convicted unless his drunkenness tends to unfitness. Will it be said that a man who gets full on Monday is fit for work on Tuesday. If he gets full on any day he is unfit for duty on that day, and is therefore open to a charge of drunkenness, and consequent negligence. Sub-section D of section six of the Mines Act gives the Coal Commissioner power to suspend the certificate of a boss convicted of drunkenness or gross negligence. How would it do for the ledges of the P. W. A. which are foremost in all good work, to ask that the clause be extended to apply to workmen as well as bosses. In short, that the engineman, or miner, convicted of the offence named have his certificate suspended. Such a law would compel the officials to discipline whether they would or not. Will some one show why the clause should not apply to certificated men of all classes.

AROUND THE COLLIERIES.

The Suburban's last article on "Coal" affords hope of a speedy return of the editor to soundness of mind on the question. Our friend's opinions are not so rasping, as the assertions he makes and misnames facts.

Prices at which the I. C. R. will get coal this year have not yet been fixed. The railway department is making a big effort to get the operators to take a less price than in previous years. This the operators however anxious, cannot do, owing to the big wages paid and the high price of material.

Definite information is not yet to hand in reference to the distribution of the I. C. R. contracts. It has been announced by the M. P.'s of the mining counties that the following are the allotments:—Springhill has 80,000 tons; Joggins 20,000 tons; Maritime 40,000 tons; Acadia 50,000 tons; Intercolonial 50,000 tons; Dominion 2,300 tons at Sydney. Water coal: Dominion 74,000 tons; Nova Scotia Steel 36,000 tons; Intercolonial 10,000 tons, and Gowrie 3,600 tons.

The Maritime Railway, Coal and Power Company have definitely decided to establish an electric power plant at their mine at Chignecto. The contract for the electrical apparatus necessary for the work has already been awarded and it is confidently expected that the plant will be in operation before the end of the year. Smaller industries will naturally gravitate to the place where power can be furnished with the smallest expenditure of capital and that place will hereafter be Amherst.

Inverness County showed up best of all the districts in the late examinations. It is the only county which has Managers and Underground Managers alone to its credit. Its candidates evidently were inspired with the motto "Pluck at a gown of gold and you may get a sleeve o't. They got more than a sleeve. That sixty per cent of its candidates were successful in securing first class certificates is most creditable. Though Cape Breton secured thirty one certificates as against eleven for Cumberland, nine for Pictou and six for Inverness, it must not be thought that it was the most prolific in candidates, on the contrary it is at the foot of the poll. For instance if we take the men employed at the collieries last year, Cape Breton County sent a candidate to the examination for every 286 men employed; Cumberland one for every 221; Pictou one for every 204, and Inverness one for every 102 men it employed. Or if the tons shipped be taken: C. B. sent a candidate for every 106,000 tons; Cumberland for 48,000; Pictou for 44,000 and Inverness for every 25,000 tons shipped. So in any case Inverness is an easy first and C. B. an easy last in the matter of successful candidates.

The land of ceaseless summer pic-nic's—Cape Breton.

It is reported that a party is out whose object is to once more discover the Mullin's seam. The Mullins is the most wonderful seam in C. B. It is always and everywhere cropping up.

Mr. W. S. Wilson, lately underground manager of the Hub, now fills the position of Coal Inspector for the Dominion Coal Co. Mr. Wilson has had long experience and should be able to put an embargo on coal not properly cleaned or handled.

Dr. Horton, a famous English diver paid a visit a short time ago to Germany. He described to an audience, after his return, a Sabbath as he saw it in the protestant city of Nuremberg, where after ten A. M. the people gave themselves wholly over to frivolity:—

As he walked about amidst the gay throng and listened to their soulless laughter he said to himself: "These German people are becoming a negligible quantity. They are forgetting God. They are neglecting the Sabbath. Remembering one part of the Saviour's words, that the sabbath was made for man, they are forgetting the other, that the Son of Man is Lord also of the Sabbath." England need never fear German competition, unless Germany should recover, and England should lose, the Sabbath. But inasmuch as every true German patriot was seeking to regain it, while in England it was being filched away from us, he thought we had every reason to dread German competition.

Referring to operations at Port Malcom the Eastern Journal says:—The work of sinking the shaft at Port Malcom proceeds under double shift without interruption under the supervision of Mr. H. M. Pearl and of the genial President of the company Dr. Dolly. The Canadian Consolidated Coal Co. has purchased and paid for land at Indian Head, Port Richmond where it is said a large and modern coal pier will be erected at an early date. It is distant about three miles from the mine where the water runs bold and deep to the shore. An ideal spot for shipping, open all the year round. Several cargoes of building material has already been received by the company at Port Malcom, which will be utilized in the erection of about fifteen miners houses almost immediately. With many thousands of dollars worth of modern up-to-date machinery in operation, with the purchase of a site for the shipping pier, with the receipt of material for the erection of a large number of miners houses, besides the large and commodious buildings already at the mine; no doubt can be entertained of the fact that the company has all the coal required, as shrewd capable business men such as Pearl and Dolly would not certainly go to such a large expenditure otherwise.

MINING EXAMINATIONS, 1906.

Full list of successful Candidates from the
several Districts.

—INVERNESS COUNTY.—

MANAGERS.

No.	Name.	Address.
200	Robert H. Gray	Inverness
201	Walter F. Davis	Inverness
202	James S. Quigley	Mabou
203	H. A. McLeod	Inverness

UNDERGROUND MANAGERS.

204	Alexis F. Glabais	Inverness
208	John Henderson	Inverness

—PICTOU COUNTY.—

MANAGERS.

9	John Higson	Stellarton
35	Samuel Moss	Westville

UNDERGROUND MANAGERS.

15	William Arthrell	Stellarton
17	John D. McKay	Coalburn
27	Joseph Smith	Westville

OVERMEN.

11	Alexander Munro	Stellarton
23	Archibald Black	Westville
29	James Wadden	Westville
31	George W. Horne	Westville

—CUMBERLAND COUNTY.—

MANAGERS.

303	William D. Mathews	Springhill
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UNDERGROUND MANAGERS.

306	James P. McNeil	Springhill
307	John G. Evans	"
309	William Hartley	"
314	William Letcher	"
317	John Rector	Chignecto
318	Thos. Carr	"
319	Forest Mitchell	"

OVERMEN.

310	Phillip Vienneau	Springhill
311	James T. Hartley	"
312	William T. Letcher, Jr.	"

—CAPE BRETON COUNTY.—

MANAGERS.

105	John C. Nicholson	Dom. No. 1
110	Alex. S. McNeil	Dom. No. 4
111	James D. Maxwell	New Aberdeen
112	Bart Connors	Reserve Mines

UNDERGROUND MANAGERS.

119	James Moseley	Glance Bay
120	Joseph Mann	Sy. Mines No. 3
122	William Largo	Sy. Mines No. 3

123	Martin Weir	New Aberdeen
124	James R. Dinn	Caled. Mines
125	Michael A. McNeil	Bridgeport
128	Allan A. McDonald	Dom. No. 4
129	John Murphy	New Aberdeen.
132	Andrew Ballie	Sydney Mines
133	John Hunter	"
134	George Ballie	"
135	Henry Oliver	New Aberdeen
136	Samuel Shone	Reserve
137	Alex. D. Mathewson	Caled. Mines
140	Luther Saville	Sydney Mines
145	John Jos. McIntyre	Bridgeport
160	Wm. R. McDonald	Port Morien

OVERMEN.

121	Thomas McDonald	Reserve
126	Thomas Kavanagh	Bridgeport
127	Norman E. McDonald	Glance Bay
131	William McDonald	Port Morien
139	Andrew Cunningham	Sydney Mines
143	Lauchlin X. McNeil	Dom. No. 1
147	John P. Young	Dom. No. 1
157	Thomas Branton	Dom. No. 6
159	William Edwards	New Aberdeen
161	Duncan McNeil	New Aberdeen

The Record is particularly pleased to see so many of its friends secure the higher grade certificates. Of the eleven who were able by merit alone, to claim managers certificates, no fewer than nine are subscribers to the Record and possibly the remaining two have a side glance at it occasionally.

Development work is proceeding briskly at the Mabou mine. Levels east and west have been driven in the new lift. A balance is being driven on the west side level of this lift.

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Transacts a general trust business
such as acting as Executor, Admin-
istrator, Guardian, Trustee, Regis-
trar or Transfer Agent for an estate
Folders obtained from
Branches Bank of Nova Scotia.

Brick! Brick!

The Westellar Terra Cotta Company

having taken over the business of the Stellarton Brick and Tile Co'y, and having installed more powerful and modern machinery, WILL BE PLEASED TO HAVE ENQUIRIES AS TO PRICE AND QUALITY.

Works:—SYLVESTER

Head office—STELLARTON.

GEO. E. MUNRO, Sec'y, WESTVILLE, N. S.

AROUND THE COLLIERIES.

The S. S. Times which was chartered by the N. S. Steel & Coal Co. for a few days, came back to the "Landing" last week and loaded with coal for Montreal.

Referring to the possible route of the Guysborough Railway an esteemed contemporary says:—"Whichever the route adopted will be the cars will run 'into' New Glasgow." No doubt, that has been distinctly promised, but how many feet.

A superintendent of a coal mine asked for an item or two the other day replied: "There is nothing new; yesterday was pay day, and half of our men were off work." To be off work after pay is nothing new at a majority of the collieries. More's the sorrow of it.

Mr. M. S. Beaton has been promoted to the position of resident manager at the Inverness Colliery. Mr. Beaton is a capable mine man, and the company was well advised in selecting him to succeed Mr. Campbell. Mr. McGillivray has charge of the railway, and the coal sales, and the office work generally. As both men are strong we should hear of progress and enlargement at Inverness.

The Dom Coal Co. lately shipped a five thousand ton cargo of coal to Mexico. When the cargo reaches its destination it will be put through a series of tests. If these are successful then the chances are that some railway companies in that country may enter into contracts. But it is not anticipated that any large quantity of provincial coal will find its way there, probably not more than 50,000 tons under the most favorable conditions.

Last month was the busiest and best in the history of the Steel Works at Trenton. In June no less a quantity than 3600 tons of finished products were turned out and shipped from the various mills and machines.

A very strong letter referring to the Board of Examiners has been received from a candidate who failed. As the Record has asked for the complainant's papers for publication it may be as well to hold over his strictures. If he failed after an impartial trial then the least said the better; if it is found he has been unfairly dealt with, then there will be firing all along the line.

Mr. Henry Ritchie Jr., of New Glasgow was one of those in attendance at the meeting of electricians held in Sydney last week. Young Ritchie gives promise of attaining a foremost place in his profession. He is intelligent and energetic, and can work with his hands as well as his head. Work he has done lately has been satisfactory to his patrons.

Mr. J. W. Cumming of New Glasgow, the well known maker of all kinds of mining tools is doing a very large business. He has found it necessary to add largely to his premises and machinery. The workshop has been enlarged to 70 x 40 feet. A new steam hammer has been installed, also a combined shearing and punching machine, and an additional trip hammer. Indeed Mr. Cumming has all the latest tools to facilitate the carrying on of his business. He gives employment to twelve hands, who have their hands full, business is so brisk.

It will indeed be a GREAT Exhibition.

PREMIUMS

\$100,000

**Take a Holiday
and**

Race Purses

\$9,000

and Visit the Garrison City for the

DOMINION EXHIBITION.

If You do You'll be GLAD You took the Trip

**SEPT. 22
October 5**

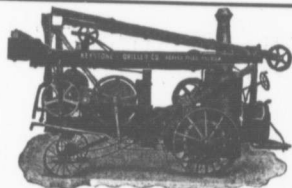
THE DATES

and

THE PLACE

**Halifax, N. S.
Canada.**

Write to M. McF. HALL, Manager, Halifax, N. S. for Information.



The KEYSTONE
Percussion Core Drill Attachment
is an economical appliance for
TESTING COAL LANDS.

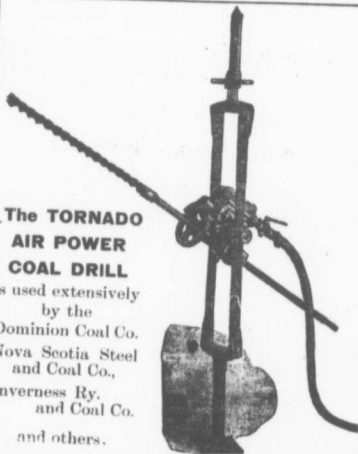
It can be used in connection with any good "churn" drill, but operates best on the long-stroke KEYSTONE, thus making the cheapest and quickest method of boring to be found.

In operation a hole is sunk to the coal with the ordinary Rock Bit. The Bit and Stem are then removed and the Coring Attachment put on in their place. It takes a 4 ft. core out of the Softest as well as the Hardest part of the vein. Avoids all delay and expense of "rods" water wash, diamonds, shot, and heavy operating mechanism.

Price of Complete Attachment
\$200.00

Catalog No. 2 B. is a book on the subject.
We make Water, Oil & Test Well Drillers
for all depths and purposes.

Keystone Driller Co. Beaver Falls, Pa.



The TORNADO
AIR POWER
COAL DRILL
is used extensively
by the

Dominion Coal Co.
Nova Scotia Steel
and Coal Co.,
Inverness Ry.
and Coal Co.

and others.

Herzler & Henninger Mach. Works,
Manufacturers of the
H. & H. Coal Cutters & Tornado Coal Drills,
Belleville, ILL., U. S. A.

MABOU & GULF COAL COMPANY, L'T'D.

Miners of the

MABOU DIAMOND COAL.

Burns and Works like Bituminous;

Looks and Lasts Like Anthracite;

IT HAS NO EQUAL.

Mines, Piers
and General Offices

MABOU, CAPE BRETON.

MONTREAL STEEL WORKS Limited.

STEEL CASTINGS
FORGINGS,
SPRINGS,
FRIGS,
CROSSINGS,

We make a Speciality of cast Steel WHEELS

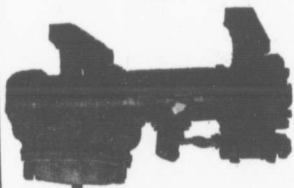
and other
Steel Castings for

MINING PURPOSES.

INTERLOCKING SWITCH AND SIGNAL Plants.

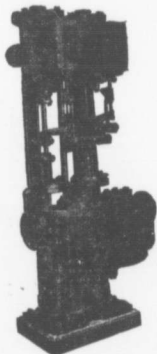
(Under the patents of Saxby & Farmer, Limited, of London Eng
CANAL BANK, POINT ST. CHARLES MONTREAL—

PUMPING MACHINERY.



Fairbanks Morse Duplex,
Piston Pattern,
Boiler Feed Pump.

**Steam Pumps,
Power Pumps,
Fire Pumps.**



Fairbanks Morse,
Vertical Duplex Boiler
Feed Pump, Marine Type.

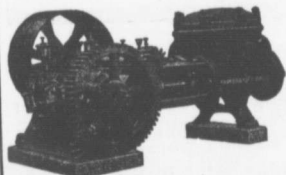
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and have a VERY Extensive Line of
Patterns.**

Our aim is to Build a High Grade
Line of Pumpin Machinery.

**The Material and Workmanship en-
tering into the Construction of Our
Pumps is kept up to the highest Stand-
ard at all times.**

All the Wearing Parts are made to Gauge and are therefore
interchangeable.

**EVERY PUMP IS THOROUGHLY TESTED
BEFORE IT LEAVES THE FACTORY.**



Fairbanks Morse Horizontal Duplex Power Pump

Send for our Catalog 48c, or have our representative
in your vicinity call on you.

REPRESENTED BY

A. F. LYTLE, New Glasgow, N. S.

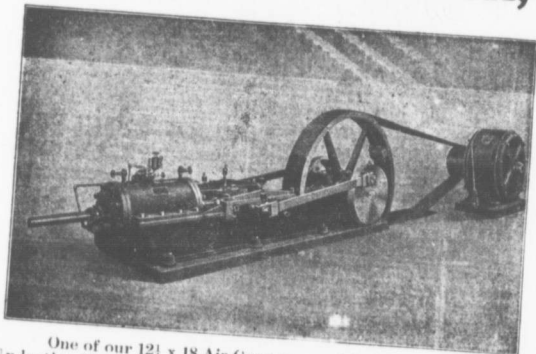
K. N. FORBES, Halifax, N. S.

G. E. Choinier, St. John, N. B.

The Canadian Fairbanks Company, Limited.

Montreal, Toronto, Winnipeg, Vancouver.

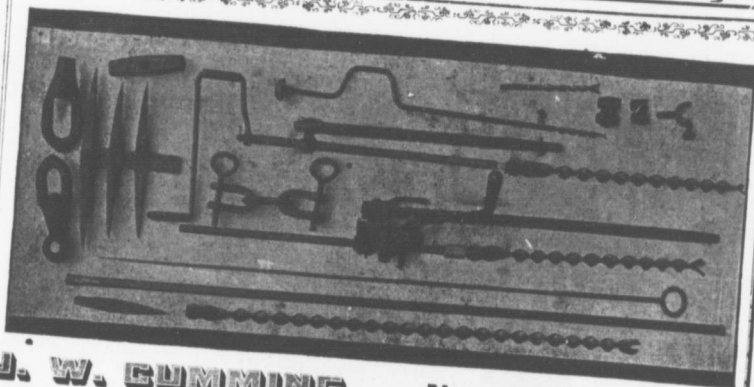
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One of our 12 $\frac{1}{2}$ x 18 Air Compressors driven by a 50 h. p. In-duction Motor, and supplying power for a Manitoba quarry. For different uses of compressed air see Catalogue 75 F.

Works, MONTREAL.

Branch Office New Glasgow.



J. W. CUMMING,

New Glasgow, N. S.

—DESIGNER AND MANUFACTURER OF—

Miners High Grade Tools.

Augers, Mauls, Wedges, Copper Needles, Tamping Bars, Cones and Swivles for Wire Ropes, Drawbars, Mountings, all kinds of forgings for Pit Machines

Boring Machine Parts always on hand.

Any Kind of Pick to Order.

ESTIMATES PROMPTLY FURNISHED



Synopsis of Canadian North-West. Homestead Regulations.

ANY even numbered section of Dominion Lands in Manitoba or the North-West Provinces, excepting 8 and 26, not reserved, may be homesteaded by any person the sole head of a family, or male over 18 years of age, to the extent of one quarter section, of 160 acres, more or less.

Application for homestead entry or inspection must be made in person by the applicant at the office of the local Agent or Sub-Agent.

An application for entry or inspection made personally at any Sub-agent's office may be wired to the local Agent by the Sub-agent, at the expense of the applicant, and if the land applied for is vacant on receipt of the telegram such application is to have priority and the land will be held until the necessary papers to complete the transaction are received by mail.

In case of "personation" the entry will be summarily cancelled and the applicant will forfeit all priority of claim.

An applicant for inspection must be eligible for homestead entry, and only one application for inspection will be received from an individual until that application has been disposed of.

A homesteader whose entry is in good standing and not liable to cancellation, may, subject to approval of Department, relinquish it in favor of father, mother, son, daughter, brother or sister, if eligible, but to no one else, on filing declaration of abandonment.

Where an entry is summarily cancelled, or voluntarily abandoned, subsequent to institution of cancellation proceedings, the applicant for inspection will be entitled to prior right of entry.

Applicants for inspection must state in what particulars the homesteader is a defaulter, and if subsequently the statement is found to be incorrect in material particulars, the applicant will lose any prior right of re-entry, should the land become vacant, or if entry has been granted it may be summarily cancelled.

DETTIES.—A settler is required to perform the conditions under one of the following plans:—

(1) At least six months' residence upon and cultivation of the land in each year during the term of three years.

(2) If the father (or mother if deceased) of a homesteader resides upon a farm in the vicinity of the land entered for by such person, the requirement as to residence may be satisfied by such person residing with the father or mother.

(3) If the settler has his permanent residence upon farming land owned by him in the vicinity of his homestead, the requirements may be satisfied by residence upon each land.

Before making application for patent the settler must give six months' notice in writing to the Commissioner of Dominion Lands at Ottawa, of his intention to do so.

SYNOPSIS OF CANADIAN NORTH-WEST MINING REGULATIONS.

COAL. Coal lands may be purchased at \$10 per acre for soft coal and \$25 for anthracite. Not more than 320 acres can be acquired by one individual or company. Royalty at the rate of ten cents per ton of 2,240 pounds shall be collected on the gross output.

QUARTZ. A free miner's certificate is granted upon payment in advance of \$5 per annum for an 80 ft. vein, and from \$20 to \$100 per annum for a vein of any width.

A free miner, having discovered mineral in place, may locate a claim 1500 x 1500 feet.

The fee for recording a claim is \$5.

At least \$100 must be expended on the claim each year or paid to the mining recorder in lieu thereof. When \$500 has been expended or paid, the locator may, upon having a survey made, and upon complying with other requirements, purchase the land at \$1 per acre.

The patent provides for the payment of a royalty of 2 1/2 per cent on the sale.

Placer mining claims generally are 100 feet square; entry fee \$5 renewable yearly.

A free miner may obtain two leases to dredge for gold of five miles each for a term of twenty years, renewable at the discretion of the Minister of the Interior.

The lease shall have a dredge in operation within one season from the date of the lease for each five miles. Rental \$10 per annum for each mile of river leased. Royalty at the rate of 2 1/2 per cent collected on the output, after it exceeds \$10,000.

W. W. COBY,
Deputy of the Minister of the Interior.

NOTICE.

MINES OFFICE HALIFAX, N. S., June 16, 1906.

AN Examination for Granting Certificates of Competency to Stationary Engineers will be held at Springhill, Stellarton, North Sydney and Inverness, on July 17th., 1906. Applicants for certificates of service and firmen will be examined on July 18th.
Applications must be sent in not later than July 9th., to the members of the Board for each district, who can furnish any other information that may be desired.

MEMBERS OF THE BOARD.
John Barrington, North Sydney, A. F. Campbell, Inverness,
H. F. Coll, Stellarton, H. R. Groggett, Springhill.

W. M. T. PIPES,
Commissioner Public Works and Mines.

Miners Wanted To Chew BULL DOG TOBACCO,

Because it is the only Tobacco
which does not excite Thirst
for Water after using.

TRY IT!

The St. Lawrence Tobacco Co., Ltd.

—Montreal.—

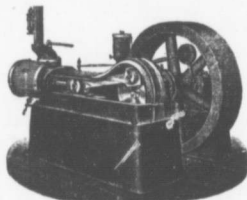
—W. B. Reynolds, Halifax Representative—

The Archibald Company, Limited

Hats, Caps, Straw Goods, all kinds of
Fur Goods and Men's Furnishings.
Wholesale only,

TRURO, Nova Scotia.

NOT ONE CENT FOR REPAIRS



An experienced Engineer has written us
as follows:—

"After eighteen months of hard service, the Robb engines are in excellent shape, running very smooth and without a bit of vibration. Up to this time they have not cost one cent for repairs, the only expense being steam, oil and packing, and this below the average. Perfect alignment, parts well machined, and good design make the Robb the most economical and labor saving engine that has ever come under my notice."

Robb Engineering Co., Ltd.
Amherst, N. S.

HAMILTON'S ZEPHYR

....PILOT,....

CALLED

“The Prince of Pilots.”

Beyond Comparison. The Finest Pilot Biscuit Made.

ASK YOUR GROCER FOR IT.

G. J. HAMILTON, & SONS.
Pictou, Halifax, St. John.

Contractors to Admiralty and War Office, also Colonial Governments.

ALLAN, WHYTE & C'O'Y.

Clyde Patent Wire Rope Works,
Rutherglen, Glasgow, Scotland.

Cablegrams:

“Ropery Rutherglen,”

Cables, A. B. C. (10b & 10h Eds)
A. L. Lieberson and Private.

Wire Ropes

for
Winding & Haulage
in

Collieries and Mines.
Specially

Aerial Ropeways, Suspension Bridges, Winches, etc.
flexible for Ore & Coal Discharging Cranes, etc.

The Nova Scotia Steel & Coal Co., Ltd., who use our Ropes largely, write that one of our Haulage Ropes at Wabana Mines has been in service for over 5 years, drawing over 1,750,000 tons in that time and is still good for further considerable service.

Agents in Nova Scotia:—**Wm. Stairs, Son & Morrow, Ltd., Halifax.**
Agents in New Brunswick:—**W. H. Thorne & Co., Ltd., Saint John.**

—Different Sizes and Qualities kept in Stock—

CAPE BRETON COLLIERY.

NEW CAMPBELTON CAPE BRETON N. S.

SUPERIOR

STEAM AND DOMESTIC COAL

SAFE AND CONVENIENT SHIPPING PORT

The Nearest Coal Port to Newfoundland Just Inside Entrance Great Bras d'Or.

Vessels from P. E. I. and Western Ports, via St. Peter's Canal, will save time by loading at New Campbellton. Smooth Inland Navigation. Quick Despatch.

J. T. Burchell Manager.

INVERNESS IMPERIAL COAL

INVERNESS RAILWAY and COAL COY.
Inverness, Cape Breton.

Miners and Shippers of INVERNESS (BROAD COVE)

Screened, Run-of-Mine Slack.

—First Class both for Domestic and Steam Purposes.—

BUNKER COAL Shipping facilities of the most modern type at Port Hastings, C. B. for prompt loading of all classes and sizes of Steamers and sailing vessels.

Apply to Inverness Railway and Coal Company, Inverness, Cape Breton; Wm. Petrie, Agent, Port Hasting, C. B.

INVERNESS RY. & COAL CO'Y

Time Table No. 18, Taking effect at 1 a.m. June 5th, 1905.

EASTBOUND			STATIONS.	WESTBOUND		
Read Down				Read Up		
No. 32	No. 44	No. 55		No. 32	No. 44	No. 55
L	S	A		L	S	A
11 10	11 16	11 30	P. TUPPER JUNCTION	10 55	10 58	11 00
	8 4 00		PORT-HAWESBURY	10 58	10 58	11 00
	A 4 15		PORT HASTINGS	10 40	10 40	10 40
	L 4 30		TROY	10 00	10 00	10 00
	F 4 35		CREIGNISH	9 53	9 53	9 53
	F 5 10		CATHERINES FORD	9 58	9 58	9 58
	F 5 50		PORT HOOD	9 00	9 00	9 00
	A 5 58		GLENCOE	8 45	8 45	8 45
	L 5 45		MARJI	8 15	8 15	8 15
	F 5 50		GLENDYNE	8 00	8 00	8 00
	F 6 00		BLACK RIVER	7 50	7 50	7 50
	F 6 05		STRATHLOREN	7 37	7 37	7 37
	A 7 00		INVERNESS	7 30	7 30	7 30
	P 10 1					

Trains make close connections at Pt. Tupper Jet. with I. C. R. passenger trains, excepting the Maritime Express.

THE PORT HOOD COAL COMPANY LIMITED

Miners of

SCREENED
STEAM
STOVE
SLACK

COAL,

Mines and Shipping Pier, Port Hood; C. B.

Especial care is taken in preparing our coal for Domestic Uses. For Stoves, Grates and Ranges, it has no superior in Cape Breton or Nova Scotia.

For prices f. o. b. at Port Hood and delivered at any point including all stations in the Intercolonial or Dominion Atlantic Railways apply to

THE PORT HOOD COAL COMPANY, LIMITED

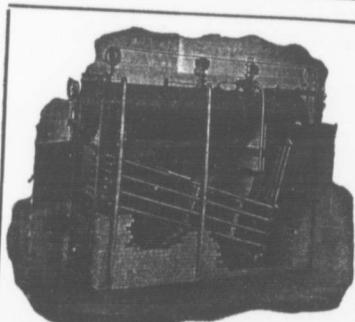
ADVERTISE IN THE MINING RECORD.

DOMINION BRIDGE CO., LTD., MONTREAL, P. Q.

BRIDGES

TURNABLES, ROOF TRUSSES
STEEL BUILDINGS
ELECTRIC & HAND POWER CRANES
Structural METAL WORK of all kinds

BEAMS, CHANNELS, ANGLES, PLATES, ETC., IN STOCK



BABCOCK AND WILCOX PATENT WATER TUBE
BOILER WITH SUPERHEATER.

BABCOCK & WILCOX LTD.

PATENT
SUPERHEATERS

Over 1,250,000 H. P. now in use.

Can be adapted to existing plants and to all types of
boilers, effecting great economy in fuel consumption.

Write for our Circular giving detailed description.

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BRANCH:—114 KING ST. WEST, TORONTO.

We Have in Stock

and offer at lowest price

—the following—

Asbestos Cement, Blacksmith Bellows,
Carrage Bolts, Crow Bars,
Coke Forks, Rail Benders,
Jack Screws, etc. etc

These are only a few of the many supplies we
have on hand. Write for quotations

AUSTEN BROTHERS,

Halifax, N. S.

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BARRISTER, SOLICITOR, ETC.

NEW GLASGOW, N. S.

Successor to Sinclair and Patterson—

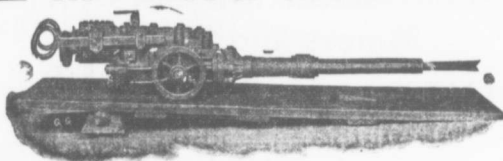
JERSEY - LILY - FLOUR.



*Best all round flour on the market.
Uniform in quality. Every barrel*

*can be depended upon. This flour can
only be had in Cape Breton at the stores
of the Dominion Coal Company.*

COAL MINING MACHINERY



"G" HARRISON IMPROVED COAL CUTTER.

HARRISON IMPROVED COAL CUTTERS.

AIR COMPRESSORS
—of all Descriptions—

LITTLE GIANT STEAM OR AIR DRILLS

MANUFACTURED BY **Canadian Rand Drill Coy Works, Sherbrooke Que.**

Halifax Office, 116 Hollis St.

G. L. Burritt, Agent.

The Stirling Consolidated Boiler Company,

Successors to the plants and Water Tube Boiler business of The Stirling Company, Barberton, Ohio, and The Aultman & Taylor Machinery Coy., Mansfield, Ohio.

Manufacturers of

Stirling A. & T. Horizontal and Cahall Vertical Water Tube Boilers, Chain Grate Stokers and Superheaters.

WORKS: Barberton, Ohio; Mansfield, Ohio.

GENERAL OFFICES:.....Trinity Building, 111 Broadway, New York.

RUBBER BELTING.

Unequaled for DURABILITY and POWER TRANSMITTING Qualities.

"Monarch," "Red-Strip" and "Lion" Brands, for Transmitting, Conveying and Elevating.

"REDSTONE SHEET PACKING"

For Highest Pressures with Steam, Hot or Cold Water and Air

The most durable and satisfactory Packing on the Market.

Suction Hose, Steam Hose, Air Drill and Pneumatic Tool Hose.

—MANUFACTURED BY—

The Gutta Percha & Rubber Mfg. Co., of Toronto, Limited.

B ranches at Montreal, Winnipeg and Vancouver.

Head offices, 47 Yonge Street, Toronto

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STELLARTON, NOVA SCOTIA.

Miners and Shippers of the

CELEBRATED

ACADIA COAL.

Unexcelled for Steam, Domestic and General Purposes.

DELIVERED BY RAIL OR WATER.

SHIPPING PORT: PICTOU LANDING.

Quotations Furnished Promptly on Application.

MARITIME COAL & RAILWAY CO., Limited,

Miners and Shippers of

CHIGNECTO HIGH GRADE COAL.

Steam AND Domestic

Unexcelled for General Use.

Shipments to all points reached by the
Intercolonial Railway.

Offices and Colliery - - - Chignecto, N. S.

JAMES BAIRD, Mine Manager.

DAVID MITCHELL, General Manager.

The BROWN MACHINE CO.,

New Glasgow, Nova Scotia.

Coal and Gold Mining Machinery a specialty

Endless Haulage Engines, Revolving Tipples, Picking Tables and Complete Screening Plants for the Cleaning and Picking of Coal. Rope Wheels, Pumps, Valves, Shafting, Belting Etc.

Complete equipments furnished for Coal or Gold mines.

Screening plants are now in operation at Sydney, Springhill, Broad Cove, Port Hood and Westville Mines

Estimates Cheerfully given.

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**THE BOILER INSPECTION
& INSURANCE CO.**

OF CANADA



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CONSULTING ENGINEERS
G. C. ROBB CHIEF ENGINEER

HEAD OFFICE TORONTO

WHEN WERE YOUR
.. BOILERS ..
.... LAST INSPECTED I....

WRITE TO
G. W. JONES, Agent,
Halifax, N. S.

-OR TO-
A. BONNYAN, INSPECTOR
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**WIRE ROPE,
"Acme Brand."**

Highest Grade of 'Hoisting Rope made,
Extra Tensile Strength for Heavy Work.

Use Greening's Rope Grease for Lubrication.

THE B. GREENING WIRE COMPANY, LIMITED.
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**DRUMMOND
COAL.**

INTERCOLONIAL COAL MINING CO., Limited,
WESTVILLE, NOVA SCOTIA.

MANUFACTURERS AND MERCHANTS SHOULD ADVERTISE IN THE
MARITIME MINING RECORD Rates Moderate.

GOWRIE AND BLOCKHOUSE COLLIERIES,

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OF NEWCASTLE ON TYNE.

MINE AND LOADING PIERS, PORT MORIEN, COW BAY.

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Miners and Shippers of **GOWRIE COAL.**

The Reputation of this Coal has Steadily Advanced during the past 40 years and the Output of the new Mine is fully up to the old Standard of Excellence.

Especially designed Piers for the rapid delivery of coal into Vessels by Roe and Bedding's Patents.

OFFICES:—Canada, Port Morien, Cape Breton, Nova Scotia. England, Newcastle on Tyne.

The JOHN McDOUGALL Caledonian Iron Works Co., Ltd.

Montreal Que.

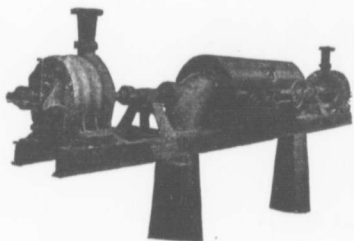
BOILERS: All Sizes and all Pressures.

PUMPS

Worthington Pumps for
Water Works and Mines.

Water Wheels

Doble Water Wheels for high heads.



Two Worthington 3 stage Turbines and McCormick Water Wheels, built for Port Arthur, Ontario, Water Works. Combined capacity 1440 gallons per minute against 350 head.

Mill Machinery

Etc. Etc.

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RAILWAY AND

COAL COMPANY.

OPERATING THREE
THICK SEAMS
NOS 1, 2 AND 3.

—Miners and Shippers of the Well Known—

FRESH MINED SPRINGHILL COAL.

... ANALYSIS ...

	NO 1	NO 2	NO 3
Moisture.....	2.02 %	1.41 %	2.71 %
Volatile combustible matter 18.94 %	27.93 %	28.41 %	
Fixed Carbon.....	75.29 %	67.47 %	64.69 %
Ash.....	3.75 %	3.19 %	4.19 %
	100.00	100.00	100.00
Sulphur.....	1.15 %	58 %	.79 %

BEST COAL FOR
LOCOMOTIVE USE.

Delivered By Rail or Water

BEST COAL FOR
GENERAL STEAM PURPOSES.

The year Round
IN Lots To Suit Purchasers.

BEST COAL FOR
DOMESTIC CONSUMPTION.

BEST GAS COAL

Mined in the Province.

Mines _____
SPRINGHILL

N. S.

Head Office _____
MONTREAL

Dominion Coal Company, Ltd.

Miners of
 Bituminous Coals, the celebrated "Reserve" coal for household use, "International" Gas coal, and the best Steam coal from its collieries on the Phalen seam.

—Yearly output 3,500,000 tons.—

ANALYSES.

ANALYSES OF GAS AND STEAM COAL MADE BY J. & H. S. PATTINSON, CHEMISTS,
 —NEWCASTLE, ENGLAND.—

	STEAM COAL.	GAS COAL
CARBON.....	80 18 per. cent.	77 51 per. cent.
HYDROGEN.....	5 11 " "	5 22 " "
OXYGEN.....	7 34 " "	6 72 " "
NITROGEN.....	1 16 " "	1 27 " "
SULPHUR.....	0 56 " "	3 07 " "
ASH.....	2 30 " "	4 10 " "
WATER.....	3 35 " "	2 11 " "
	100 00	100 00

Calorific Power of Steam Coal:—Pounds of Water evaporated from 212 per cent Fah, by one pound of the coal as determined in Thompson's Calorimeter,—14.8 lbs.

Shipping facilities at Sydney, and Louisburg,
 G. B., of most modern type. Steamers carrying
 —6000 tons loaded in 24 hours.—

Special attention given to quick loading of
 sailing vessels. Small vessels loaded with
 ↗ quickest despatch. ↘

:: BUNKER COAL ::

The Dominion Coal Co. has provided unsurpassed facilities for Bunkering
 Ocean going Steamers with Dispatch Special attention given to Prompt loadings
 Steamers of any Size are bunkered without detention.

By Improved screening appliances lump coal for Domestic trade is supplied
 of superior quality.

Prices. Terms, etc. may be obtained at the Offices of the Company.

ALEXANDER DICK Genl. Sales Agent, Glace Bay, N. S., Can.

DOMINION COAL COMPANY, LIMITED,
 DOMINION COAL COMPANY, LIMITED,
 DOMINION COAL COMPANY, LIMITED,

112 St. James St., Montreal, Que.
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 R. P. and W. F. Starr, St. John, N. B.
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2nd. Vice President