

# MARITIME MINING RECORD

Dr. R. Bell  
Geol. survey dept.

## COAL AND METAL TRADES JOURNAL

*136 M. J. Jones*  
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New Series Vol. 11 No. 6 SEPTEMBER 23rd, 1908 STELLARTON, N. S.

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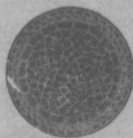
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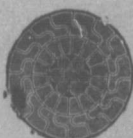
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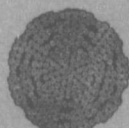
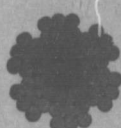
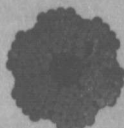
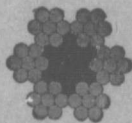
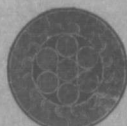
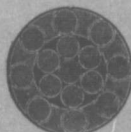
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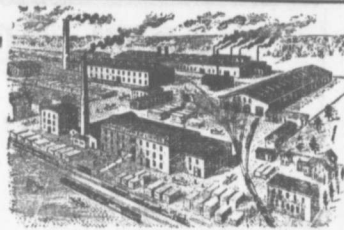
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62 Mixed from Truro	8.00
29 Mixed from New Glasgow	30.40
17 Mixed from Pictou	19.45
66 Mixed from Mulgrave	13.15
19 Express from Halifax and St. John	16.20
159 Mixed from Pictou	15.35
85 Express from Halifax and St. John	15.35
20 Express from Sydney	15.45
22 Mixed from Pictou Landing	15.10
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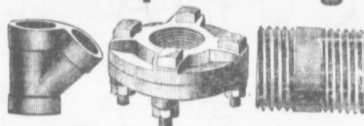
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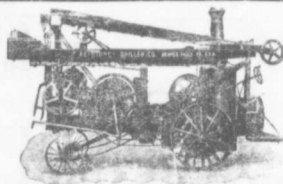


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We invite inquiries, which will have our closest attention.

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# MARITIME MINING RECORD

Vol. 11, No. 6. Stellarton, N. S., Sept. 23rd. 1908. New Series

## SELECTED QUESTIONS AND ANSWERS.

### BOILER EXPLOSIONS.

Q.—State the conditions which may tend to bring about a boiler explosion.

A.—Among the conditions which may tend to bring about a boiler explosion may be mentioned the following:

- (1) Collapse of furnace tubes.
- (2) General weakness of boiler of insufficient strength to withstand the pressure.
- (3) Corrosion of plates through dampness on the outside.
- (4) Overheating through low water.
- (5) Improper setting.
- (6) Lack of cleaning when boiler gets scaled.
- (7) Unequal expansion of the various parts.
- (8) Interference with steam gauges or safety valves
- (9) Negligent and incompetent persons as attendants.

1.—The collapse of furnace tubes leads us to think they are weak parts. A boiler generally begins to wear (1st.) near the ashpits; (2nd.) about the line of the fire-bars in the furnace; (3rd.) the shell near the water-line; and (4th.) at the front or bottom of the boiler.

2.—When boilers are made they are of sufficient strength to withstand considerably more pressure than the safety valve is designed to blow off at, and in order to find any defects in material or workmanship they are put to a hydraulic test of about twice that of the working load.

3.—Corrosion has a very serious effect on the plates and dampness on the outside of the boiler should be avoided.

4. Overheating is caused by allowing the water to get too low in the boiler, and in consequence exposing the crown of the furnace to the direct action of the fire, when it becomes overheated, and finally falls in.

5.—This should be seen to by competent persons.

6.—Impure water is the cause of incrustation or sooty deposit in the boiler, which weakens and in some cases prevents the heat from getting to the water, thus resulting in the burning of the plates.

7.—Intense firing does serious injury to the boiler on account of the too sudden changes, and the unequal expansion when raising steam.

8.—Safety valves should not be interfered with, except by persons appointed, and should be so designed that no one can tamper with them, such as changing the weight on them.

9.—I know of cases where the attendants have been both negligent and incompetent, and have in consequence of their negligence been prosecuted; to this I would say that it is essential you have a competent person looking after the boiler.

### FIRES IN MINES.

Q.—If an extensive fire broke out in one district of a colliery, what steps would you take to deal with it?

A.—A fire in a coal mine is one of the most dangerous and troublesome conditions that have to be dealt with, because it robs the air of its oxygen and gives off several noxious gasses, which, if inhaled, render the miner incapable of looking after himself, and frequently causing death. Therefore, fires should be isolated and prevented from spreading from the seat of their origin to other parts of the mine, by means of the erection of good substantial dams, in both the intake and return airways of that district or part of the mine wherein the fire has broken out.

To do this in mines which are liable to spontaneous combustion, the mine should be laid out into small districts on the panel system, leaving an efficient barrier of coal between each panel. The working of the coal inside the panel may be either long wall, pillar and stall, or a modification of each or either; each panel having its own separate intake and return. By this means each and every district could be isolated one from the other, and in case of a fire occurring in one it could be isolated, and the other districts or panels kept working, thereby the output would only be reduced to the extent of that coming from the isolated panel, and this could be made up by a slight increase from each of the others.

When a fire does occur every possible means must be immediately taken to isolate and extinguish it. In this question where the fire has got a firm hold and the only way to extinguish it is by means of absolute isolation, and a cutting off of its supply of oxygen, to do this the number and position of the road will determine the mode of isolation, in conjunction with the position of the fire with regard to the old workings. If the mine was one liable to spontaneous combustion the road would have been so laid out that isolation could be very quickly carried out, by having sites prepared in each road for fire-dams, by means of cutting a groove all round the periphery of the roadway about two feet wide and deep enough to be on the solid. This groove should be built up with good bricks jointed with best cement, and all spaces packed and rammed solid with good dry sand. These grooves should be prepared at the earliest possible moment, and a supply of bricks, dry sand, and cement kept in readiness to immediately seal off the district by building the dam if a fire breaks out. If the preparations are made a district should be dammed off in about two hours. In the fixing upon the site great care must be taken to see that the strata of whatever description be very hard, free from cracks, fissures, etc. to prevent leakage of the air.

To actually deal with an extensive fire, first withdraw all the men affected; then, with the aid of good, competent, and careful men, build double, or, better still, treble brick and mortar stoppings, on the prepared

site; in between each set of stoppings, which should be about six feet apart, should be filled up and rammed solid with good dry sand. Make the stoppings perfectly air-tight by plastering them with clay, of a suitable pliancy for the work.

The return stopping must always be completely stopped off, because then the products of combustion collect, and as they do not support combustion they would assist in extinguishing the fire and prevent any explosive mixtures being formed and accumulating near the fire. The pressure of the in-going current would cause the smoke and fumes to be pent up under pressure in the workings, and thus allow time to build up some in the intake with a limited supply of fresh air. Sometimes it is advisable to reduce the volume of air whilst building the return dam, but great care must be taken that there is a sufficiency for the men's requirements.

In building the intake the full ventilating pressure may again be put on. In building these dams the men usually work for a short time only at once, and several relays of men are kept in the fresh air ready to take their turn, or, in case of anything unusual taking place the dams are built under assistance. Sometimes the dams are built up simultaneously, which is the better method if the whole of the circumstances are favorable, but a great deal depends upon the judgement of the official in charge of the operation.

In my mining experience in the South Staffordshire coal field, the home of spontaneous combustion, if I may use such a term, I have seen the following method adopted, for the instant isolation and prevention of the spread of fire.

In both the intake and return air-ways of each district a site is chosen and a good substantial circular arch is built; in between the masonry and the strata all spaces are filled up and firmly rammed with dry sand. Inside each arched air-way an iron framework is built during the building of the arch, and iron doors 1 inch in thickness are hung thereon. These doors in both airways are made to close in the direction in which the air is travelling, and form a perfectly air-tight joint.

When this is done and a fire should break out in the district the men are withdrawn, these iron or safety doors instantly closed, thereby thoroughly isolating the district.

For this to work satisfactorily the doors should be closed at least every week, and tested as to their forming an air-tight joint every day, because if they are not well looked after they soon become out of order, therefore, useless for the purpose for which they have been erected. In some instances a plugged pipe of a soft nature with a pressure gauge attached is placed on the doors, so that the pressure behind them may at any time be ascertained when in operation.

#### SAFETY LIMIT OF ROPES.

To determine when wire hoisting ropes have depreciated beyond the limits of safety has been a difficulty of mining engineers, and to avoid risk—in the absence of exact tests—many ropes have been doubtless discarded while still in very good condition. The strength of the ropes is now gauged by a novel use of electric induction. The ropes are passed through a coil of copper wire traversed by an alternating electric current, and the variations of induced current—which exactly correspond to changes in the thickness of the rope—are recorded on a suitable instrument. Dangerous wear or broken strands cause the indicator to give warning

#### DANGERS OF DRYNESS IN MINES.

In the last two winter months of the year 1907 there occurred four bad and serious accidents in the Appalachian coal-field. The loss of life and property was appalling. Nearly a thousand lives were extinguished and many thousands of dollars of capital annihilated. Investigations of the causes by State and national authorities disclose officially the fact that the explosions were due to the ignition of gases or of coal dust. This was a plain statement which even an ordinary engineer knew all along. The deeper-seated or primary causes are now brought out clearly by Mr. Carl Scholz in a paper published in the July issue of 'The Bimonthly Bulletin' of the American Institute of Mining Engineers. The analysis of the conditions discloses that the 'hygrometric condition of the atmosphere has the greatest effect upon the cause of the explosions.' For example, mines in a high dry altitude are especially dangerous. The colder and drier the weather, the greater is the liability to take dust.

Of course, the higher the coal of a mine is in volatile matter, the greater the tendency to explosion, and this, independent of any climatic condition, is a determining factor. It was further brought out that with the advent of improved ventilating-machinery the mines explosions began to happen, and that in the olden days, when the mines were ventilated by furnaces the explosions were, practically speaking, unknown. A study of the conditions of mines in Oklahoma shows that in a certain mine in winter with a temperature outside of 32° F. and a humidity of 95 per cent., the relative humidity of the air forced into the mine, where it assumed a temperature of around 62° F. was only 33 per cent. There must always be a certain amount of coal dust in the entries of even the best managed mines; and this will, of course, be pretty well dried up by the incoming dry air. The explosive force of dry bituminous coal dust is well known, and a painful remembrance is carried by us in the awful explosion of this dust in a large cement-works near New York City. With this in a dry pulverulent condition it is axiomatic to say that it is little less dangerous than gun-powder. We believe that this all is sound reasoning and conservatively can be called a logical guess as to the cause of coal mine explosions. A corollary to this is that English mines are safer because of the damp English climate. The effect of the English dampness on other business is marked. And American textile manufacturers began to make an artificial English fog by spraying water into the air of their plants in order to moisten it. The natural practical outcome of this is that all coal mines situated in the dangerous zone should have their air artificially moistened to keep the dust wet and so safe from explosion. This will have the effect further of preventing the stratification of 'fire-damp' or methane in the mines.—E. and M. Industry.

#### AN ALBERTA JUDGEMENT AND THE U. M. W.

It will be remembered that some months ago a Board of Conciliation and Investigation was established to adjust differences between the Strathcona Coal Co., Ltd., of Strathcona, Alta., and certain of its employees. The Board consisted of Mr. Geo. S. Montgomery, Chairman; Mr. F. L. Otter recommended by the company, and Mr. F. H. Sherman, recommended

by the employees. The number of men affected by the dispute was estimated at 40. The differences referred for investigation involved a change in the hours of labor, the men asking an eight hour day from bank to bank; a change in the method of paying wages, the men asking weekly pay in legal tender; recognition of the United Mine Workers of America, and various changes in conditions of work in and around the mine. The Board was fully constituted on December 2, and met at Edmonton during the month. On December 28 the Department of Labor received a report from the Board showing that an agreement had been reached on all points in dispute, effective from December 23, 1907 until March 31, 1909. The agreement involved an 8 hour working day at face or place of working; semi-monthly payment of wages by cheque; supply of screened coal by the company to its workmen at \$3.25 per ton within Strathcona city limits, and full recognition of the United Mine Workers of America, with the adoption of the check-off system, and an arrangement for the settlement of local or general disputes. The agreement included also various provisions as to conditions of work.

Subsequently an action was brought on behalf of the employees charging the company with a breach of the agreement in various respects. The case was argued before the Hon. Mr. Justice Stuart, in the Supreme Court of Alberta, on June 24 and 25, Mr. H. A. Mackie appearing as counsel for plaintiffs and Mr. J. R. Lavelle representing the defendant company. Judge Stuart delivered oral judgement in the case the opening paragraphs of which are as follows:—

"I had thought at one time of reserving my judgement in this case for the purpose of giving carefully and in extenso my reasons for the judgement that I should give, because it is a matter, I have no doubt, of very great interest to a great many people in the community, and the action has been brought really, I presume, because it is of such general interest, but I do not see that any advantage can be gained by reserving that decision for the reason that my views in the matter as to the rights of the parties are quite clear, and I think I can give my reasons for the judgement I am about to give as well now as at any later time.

I may say in the first place, that my only reason for not dismissing the United Mine Workers of America, District No. 18, from the case and from the record at the very opening of the trial, and my reason also possibly for not dismissing the action as a whole at the opening of the trial for the reasons I am going to give for dismissing it now, was because I did not want to leave the impression upon these plaintiffs, who are labouring men and members of the Trade Union, that their case was being treated unceremoniously or with contempt, and for that reason I have listened, I think, with some patience, not only to the evidence, but to the argument that has been advanced upon their behalf.

There can be no doubt in the world, as Mr. Mackie admitted at the close of his argument, that the United Mine Workers of America, District No. 18, can have no status in any court as parties plaintiff or as parties to the action at all. It is not alleged in the statement of claim that they are a body corporate, and they are not proven a body corporate. The only persons that have a right to sue in court are individuals or bodies corporate who are given that right by statute. There is the exceptional case, of course, of Trades Unions registered under the Trades Union Act. If the United

Mine Workers of America, District No 18 had been registered under The Trades Union Act, they would, according to the decision in the Taft Railway case, no doubt, have been entitled to be sued, and I think, corollarily to sue in court. But it is admitted that they are not registered; therefore, they are a non-existent body so far as this court is concerned, and certainly their claim, as far as this court is concerned, must be dismissed. It is true Mr. Mackie referred me to certain cases in British Columbia in which actions seem to have been brought against the Western Federation of Miners, or certain Unions of that organization, but it does not appear from the records whether or not they were registered under the Trades Union Act, and I am inclined to think from reading the reports that they were simply, after all, only representative actions, because a large number of individual defendants were joined as well as the Federation of Miners, and I do not think that those cases furnish any authority for saying that the United Mine Workers of America, District No. 18, can bring any action, or that they have any status in court. For that reason, in respect to them the action will be dismissed with costs, if YOU CAN GET THEM OUT OF THAT ORGANIZATION.

Another reduction of 8 per cent. in miners wages in the federated district of Edinburgh came into effect on the 15th inst. This is the third reduction that has taken place in Scotland recently, and if it were not that we had the P. W. A. in Nova Scotia, and that our miners had the wit to make a two years contract with the biggest coal company, the probability is that wages would be tumbling down here also. And this very contract which has saved the miners all over from a reduction, is claimed to be one of the reasons for the cry for the U. M. W. How short sighted and ill to please some men are.

#### ROPES FOR WINDING.

The most important field of application for ropes is in mining, and as the question of space does not come into consid. ration, large pulleys and drums can be used, more particularly since the angle of lateral deviation between the winding drum and head pulley must be kept as small as possible. Errors in the construction of the winding mechanism are now practically non-existent, and, therefore, the rope is not, as a rule, subjected to abnormal conditions of wear. On the other hand, the effective life of a winding rope is shorter than when used for other purposes, it being necessary—on account of the special precaution needed in winding—to lay the rope aside before the structural changes produced by longitudinal compression have become manifest externally. The usual data given in engineers' pocket-books with regard to the relative diameter of rope and rope pulley are of no practical value, since the flexibility of the rope depends on the thickness and material of the individual wires, as well as on the total diameter. The most reliable factor for calculating the rope pulley is the thickness and tensile strength of the wire, from which it follows that the diameter of the pulley should be at least 400 times that of the individual wires used in making the rope. This minimum is, however, frequently neglected, with the result that endless complaints arise of ropes wearing badly, and that users employ chains instead, because, in spite of their drawbacks in other respects, they are better able to stand bending through curves of small radius.

## MARITIME MINING RECORD.

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SEIT, 23

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 WORK AT HOME FOR THE U. M. W.

President Lewis, of the U. M. W. has made the following statement for calling off the strike in Alabama:—"The strike in Alabama has been declared off for the reason that the Governor of Alabama issued orders to the officers commanding the troops to cut down the tents sheltering striking miners who had been evicted from their homes by the coal companies. The Governor stated that the strikers would not be allowed to live in tents, and public meetings would not be allowed in the mining community during the strike. He also said that if the strike was not ended immediately that he would call a special meeting of the Legislature, have the vagrancy law of the State, which does not now apply to strikers, amended so that it would include idle men on strike, and under the law every idle man in Alabama would be arrested and sent to prison. This, he said, would end the strike, as the men who be sent to prison could be sent to the mines as convicts. Meetings were dispersed by the soldiers regardless of the fact that all were peaceful and law-abiding."

Commenting on this the Coal Trade Journal says:—

"This is not quite a full and impartial description of the Alabama situation, as no reference is made to the many acts of violence that had been committed, presumably by strikers, and the fact that the camps established by the evicted miners were becoming dangerous centers of lawlessness in the opinion of the authorities. At the same time, they have a way in the South of handling labor that would not be tolerated in other parts of the country"

Now does it not strike the average Nova Scotian that Pres. Lewis and the officials generally of the U. M. W. have more work to do at home than they can well attend to, without invading Nova Scotia, with the expressed object of lifting our colliery workers into a higher plane. The U. M. W. are coming to Nova Scotia, are they, to show us the way out, and yet in Alabama, part of their present territory, they possess a field big enough for their best energies. They coax us in Nova Scotia to come under the protection of the U. M. W. with its membership of 200,000 to 400,000. The P. W. A. has not a fortieth part of that membership, and yet it would not tolerate for an instant a state of affairs similar to that existing

in Alabama. Talk of enlarged liberty and opportunities under the U. M. W.! The miners of Alabama are prohibited from meeting, and from speech. Verily they are in slavery. And while slaves they are still members of the great, big U. M. W. Let those members of the P. W. A. who wish to secede ponder the statements of Pres. Lewis. Before coming to Nova Scotia, to make the road smooth for the feet of the colliery workers, might it not be well that the U. M. W. go down in full force to Alabama and preach liberty to the mine workers in captivity there.

The RECORD has much sympathy for the delegates to the Grand Council meeting of the P. W. A., who went to the meeting for the express purpose of disrupting the society, which has done so much, in the past 29 years, for the moral, intellectual and social uplifting of the colliery workers, individually, and as a class. They got, what some might say, a proper roasting, and their wounds are the sorer seeing the recalcitrants were roasted on their own grid iron. To change the metaphor they have been hoisted with their own petard. In May last these delegates or others of their kind forced an arrangement which sought to bind the lodges to a course, on which they had never been consulted. The delegates of the May Council, without instructions from the lodges, illegally resolved upon a course which sought to compel a minority of the members of the Association to abide by a ruling of the majority. The yielding, to a majority, in matters of opinion only, has always been inculcated in the lodge room, but on matters of conscience, or of principle compulsion is abhorrent. And a great principle was at stake; one that might mean life or death to the P. W. A., one that might mean the putting back of the dial, and to check the steady progress, of the workmen at the collieries, witnessed during the past 29 years. And these men, who now assail the majority of the delegates to the Council meeting held last week, claim to be really and truly democratic. Democracy, if it means anything, means freedom for the individual. But the U. M. W. men would not have given the so called minority in the referendum vote, any liberty at all. It was either the U. M. W. or nothing. Now the minority—so called never sought to deprive the majority of any freedom, of any right or privilege. If there are miners in Springhill, Sydney Mines, or Dom. No. 2, very anxious to join the U. M. W. why do they not quietly leave the P. W. A. and join the foreign order. Why, because they imagine they see bigger and better things in the U. M. W. do they seek to compel the loyal members of the P. W. A. to look through their glasses. Before the meeting of Grand Council the foreign order sympathizers said, "Surely the minority will yield with good grace to the—so called—majority." To-day they sing another song "Beaten in the highest court of the Association, beaten by both a secret and an open vote, fairly and squarely, they squirm; want take the physis they themselves prescribed, and with violence declare they will not accept the ruling of the majority.

Some orators in order to make a point with the unthinking, assert that the Record is in favor of the P. W. A. because it favors the capitalist. Well, no one can say that Jas. A. Fraser, of the Eastern Chronicle, is a capitalist man, and he has the following to say on the P. W. A.—U. M. W. question:—

"If Mr. Patterson really wants peace, why does he not leave the choice of which it is going to be to the mine workers themselves. His presence as agent of the U. M. W. does not tend to peace. The P. W. A. is a home creation and as that it has had the sympathy of the people of the entire province. If the mine workers come under domination when a time of stress comes there is danger that the U. M. W. will be on the one side and the people on the other. Besides, the movement is dangerous from a national standpoint. In Nova Scotia the mine workers are a very important and influential body of men. If they affiliate with the mine workers of the United States the latter country will come in time to mean more to them than their own country. If annexation to the United States were the object of the mine workers, who are to come under the dominion of the United States, U. M. W., we could understand the movement, but for the goal of an independent Canada, as part of the British Empire, we do not so easily understand it."

☛ Says the Glace Bay Gazette which cannot be said to be a capitalists paper:—"The mask seems to have fallen off and the object of Mr. Peter Patterson is now clearly to do the work of the capitalists and disrupt the labor forces in our colliery towns. To wreck the P. W. A. is poor business for any man professing to have the interests of working men at heart.

#### GRAND COUNCIL, P. W. A.

Grand Secretary Moffatt, of the P. W. A. gave out the following statement to the Halifax papers on the work of the meeting:

"The thirtieth annual meeting of the Grand Council, of the Provincial Workmen's Association held in Halifax this week, was naturally a very stormy Council. This was not unexpected as the Council was divided into two factions, one strong for the P. W. A., the other favoring the United Mine Workers of America.

For some months it has been felt that the faction composed of U. M. W., intended if possible to control the Council meeting and change the constitution with a view of bringing about a dissolution of the P. W. A. But the members of the P. W. A. were determined that this should not occur and when it was attempted to do this it was found that the U. M. W. faction were in a hopeless minority. From the beginning of the Council until near the finish the council room was one common 'battle ground'. The issue was the P. W. A. or the U. M. W. of America, with the result strongly in favor of the P. W. A. It had been secretly circulated that the lodges of the P. W. A. were over-represented. A committee was appointed to look into the matter when it was

discovered that it was the lodges of U. M. W. that had over-representation. The report of this committee which stood for the credential committee favored the barring out of three delegates, one of these from Stratheona, one from Olive and one from Power lodges. It also recommended that because Pretoria lodge was in arrears for one year their delegates should not sit in Council. The minority report recommended that all these delegates should sit. The majority report carried 51 for, and 1 against. This was the second test of the meeting, the first test centering on Ferguson Bryne, who had been asked by the executive to fill the vacancy caused by the withdrawal of one of the officers. Bryne had taken a very active part in opposing the U. M. W. of America, both at the meetings and through the press. In this way he had incurred the hostility of that faction and they were determined to put Bryne out but failed, as the vote stood strongly in favor of Bryne.

The reading of the minutes of the Council meeting held in St. Paul's Hall, Halifax, last May was the one issue on which the U. M. W. had based their hopes, but the Council refused to approve the minutes or to take any action on them, seeing that the work done by the May council was illegal therefore rendering the vote of the referendum illegal also. When it came to changing the constitution with the purpose of bringing about a dissolution, a secret ballot was taken. The ballot stood for retaining the constitution as it was 51 for and 32 for making the dissolution. As there was only 79 eligible voters in the Council and the vote cast showed 83, the U. M. W. faction entered a protest. Grand Master McNeil called for a standing vote, with the result that 49 stood for the constitution as it was and 28 for changing the constitution.

A resolution read favoring the dividing of the funds and the property between the seceding lodges and the P. W. A. lodges was ruled out of order on the grounds that the Grand Council had no authority whatever to give away either their funds or their property.

A very strong resolution giving the Executive authority over the lodges was placed before the Council and passed, the vote standing 47—7 in favor of the resolution. The resolution was:—

"Whereas during the year much agitation has been caused by some of the lodges with the purpose of destroying the Association of the P. W. A. by bringing in the United Mine Workers of America; And whereas this agitation tends to destroy the usefulness of the Association, and also burdens the Association with unnecessary expenses, be it hereby resolved that this Council deems the agitation for any Labor Organization sufficient cause for the revoking or suspension of the Charters of the lodges so agitating, and the Council gives the Grand Executive authority to revoke or suspend their Charters. We further recommend: That no agitation in favor of other Labor Organizations be permitted in any sub-ordinate lodge."

Springhill—to judge by the police reports and public demonstrations after pay days—is not suffering from want of facilities for allying thirst. Several of the workmen have been doing penance for imbibing too freely of that 'two' per cent.



## COAL MINING IN CAPE BRETON.

From a 'souvenir' prepared by the Nova Scotia Steel & Coal Co. on the occasion of the visit of the British Engineers, and the Mining Society of N. S., we glean the following interesting details as to the beginnings and progress of mining in C. B., coupled with other information:

Nicholas Denys was appointed Governor of all the eastern part of Acadia, including Cape Breton, A. D. 1637.

Nicholas Denys obtained a concession from Louis XIV, of France, of the whole Island of Cape Breton with full powers to search for and work mines of gold, silver, copper, and other minerals, paying to the King one-tenth of the profit. A. D. 1654.

In this year we have the first printed notice of the existence of coal in Cape Breton, which appears in Nicholas Denys' description of the Island. He particularly refers in this work to the mountain of very good coal at Baie des Espaynols (Sydney). (We might be pardoned in remarking here that this 'mountain' still exists, the quality of the coal is still 'very good' and is being shipped at the present time from the piers of the Nova Scotia Steel & Coal Co., at North Sydney). A. D. 1672.

An ordinance was issued by France that a duty of twenty sous per ton was to be exacted from any person taking coal from the cliffs of Cape Breton.—A. D. 1677.

The patent granted Nicholas Denys by Louis XIV, of France, was revoked in this year.—A. D. 1690.

Admiral Walker reported to the Admiralty that the English and French fishermen took coal home on their homeward voyage from Spanish Bay, (Sydney).—A. D. 1711.

Coal was mined at Sydney to supply the force of officers, soldiers and laborers who were laying the foundation of the celebrated fortress of Louisburg.—1720.

During this year there is a record of coal being shipped throughout the year from Sydney to Boston.—A. D. 1724.

The French shipped some few cargoes from Spanish Bay (Sydney) to the Island of Martinique to be used for the boiling of sugar.—A. D. 1728.

Louisburg was supplied with coal from Burnt Head, Sydney Mines, and the entrance of Little Bras d'Or during these years.—1745 to 1749.

The Duke of Newcastle sent to Boston for a Block House, which was erected at Burnt Head for the protection of coal mines then being operated there.—A. D. 1748.

M. Pishon, Secretary of the Governor of Louisburg, made a coast survey of the northeast coast of Cape Breton, and refers to two pits at Baie des Espaynols, (Sydney Mines).—A. D. 1752.

The Fort and Pit at Burnt Head were destroyed by fire.—A. D. 1752.

Exclusive right was granted Benjamin Gerrish Wm. Lloyd, James Amesbury, and Peter Bard, Merchants, of Halifax, to mine coal in Cape Breton. Gerrish and his partners opened a mine at Spanish River, (Sydney).—A. D. 1766.

Sixteen vessels, coal laden, were convoyed from Sydney to Halifax by ships of war during the American Revolution. They were chased and

attacked by French frigates, but arrived safely. A. D. 1781

Governor DesBarres laid the foundation of the town of Sydney, called so after Lord Sydney at that time Sec'y. of State for the Colonies.—A. D. 1784.

All coal previously mined in Sydney River was mined from the shores at Indian Cove and Lloyd's Cove on the northern shore of the river (Harbor). Both of these seams of coal are on the property of the Nova Scotia Steel and Coal Company, Ltd. A. D. 1784.

Governor DesBarres commenced operations on the Sydney Main Seam, now being worked by the Nova Scotia Steel & Coal Co., and reserved four hundred acres of land for mining purposes. On this four hundred acres of land now stands part of the present prosperous town of Sydney Mines.—A. D. 1784.

Coal was mined under Governor DesBarres' administration by means of a level driven into the main seam from the foot of the cliff, where a wharf was erected at what is now known as Sutherland's Corner. This wharf, after repeated repairs, was used up to the year 1834. Sutherland's Corner is still sometimes spoken of as the 'Mines Wharf'. The old level may still be seen in the cliff at this place.—A. D. 1784 to 1787.

The coal seams at Sydney Mines were leased to Thomas Mosely by Colonel McCormick, who succeeded Governor DesBarres.—A. D. 1788.

The mines were leased to Messrs Tremaine and Stout for seven years.—A. D. 1792.

A Block House was built and two batteries of four guns each were erected on what is now known as 'Peck's Head', for the protection of the mines near Sutherland's Corner.—A. D. 1795

The Government worked the mines for one year under the management of Mr. Campbell, the then Attorney General of the Colony.—A. D. 1800

A seven years lease was given Attorney General Campbell.—A. D. 1801

Campbell surrendered the lease, and the government resumed possession.—A. D. 1803

Messrs Ritchie and Lever took a lease of the mines.—A. D. 1813

Messrs Ritchie and Lever transferred their lease to Messrs G. W. Bown and J. Lever. (Bown came to Cape Breton as Secretary to the then Governor.—A. D. 1818

The lease was renewed to G. W. Bown for one year. During this year the Island of Cape Breton was annexed to Nova Scotia.—A. D. 1820.

Sir James Kempt leased the mines to T. S. and W. R. Bown for a term of five years.—A. D. 1822.

Messrs Rundall, Bridge and Rundall, of London, organized a company called The General Mining Association, Limited, which acquired coal seams known and unknown in the whole Province of Nova Scotia, from the Duke of York, the Duke of York holding a lease for sixty years by the royal prerogative of George IV.—A. D. 1825

The lease from the Crown to the Duke of York was not executed until August 25th. of this year. During this year Mr. Richard Brown, an eminent mining engineer and geologist came to Cape Breton as the manager for the General Mining Association, Limited. A. D. 1826.

Mr. Brown is the author of a very good history of Cape Breton, and also a history of the

Coal Shipments Aug, 1908

—DOMINION COAL COMPANY. LTD.—

—Output and Shipments for Aug, 1908—

	—Output—	—Shipments—
Dominion No. 1	42 985	
Dominion No. 2	58 156	
Dominion No. 3	25 739	
Dominion No. 4	36 197	
Dominion No. 5	55 770	
Dominion No. 6	18 825	353 379
Dominion No. 7	18 133	
Dominion No. 8	20 754	
Dominion No. 9	29 997	

Shipments Aug. 1907	306 536	353 379
Decrease " 1908	365 027	11 648
Shipments 8 mos. 1908	3 251 846	
" 8 " 1907	2 110 222	
Increase 8 " 1908	141 624	

ACADIA COAL CO.

Shipments Aug. 1908	26 393
" " 1907	29 071
Decrease " 1908	2 678
Shipments 8 mos. 1908	213 948
" 8 " 1907	202 045
Increase 8 " 1908	11 903

NOVA SCOTIA STEEL & COAL CO.

Shipments Aug. 1908	64 406
" " 1907	81 590
Decrease " 1908	17 184
Shipments 8 mos. '08	424 644
" 8 " '07	404 877
Increase 8 " '08	19 767

INTERCOLONIAL COAL CO.

Shipments Aug. 1908	17 595
" " 1907	25 755
Decrease " 1908	8 160
Shipments 8 mos. 1908	171 368
" 8 " 1907	181 571
Decrease 8 " 1908	10 203

CUMBERLAND RAILWAY AND COAL CO.

Shipments Aug. 1908	24 213
" " 1907	nil
Increase " 1908	
Shipments 8 mos. 1908	247 082
" 8 " 1907	213 409
Increase 8 " 1908	33 673

INVERNESS RAILWAY & COAL CO.

Shipments Aug. 1908	19 577
" " 1907	23 153
Decrease " 1908	3 576
Shipments " 8 " '08	172 243
" " " '07	154 150
Increase 8 " '08	18 093

Continued from Page 16

Coal Fields of Cape Breton, from which source a great deal of this material has been obtained.

The first of January of this year, the General Mining Association, Limited, of London, took formal possession of the property granted to the Duke of York, and from this date forward coal mining has been carried on with some system, and uninterruptedly at Sydney Mines.—A D 1827.

The first shaft was sunk at what was known as 'the Yard Pit'. It was 200 feet deep.—A D 1830.

The second shaft was sunk 320 feet deep on the Sydney main seam. It was called the Jacob's pit.—A D. 1834.

The railway was built from the pits to a shipping place at North Sydney.—A D 1834

This is a very important year in the history of coal mining for Cape Breton. During this year Old Sydney Coal was for the first time used for bunker purposes on board Her Majesty's steam sloop the 'Dee'. The 'Dee' was on her voyage from England to Quebec during the rebellion. From this date forward, the Old Sydney coal has been used to a great extent for bunkering purposes, and its good name has been very fully established, and universally acknowledged both at home and abroad.—A D 1838

The Crown released to the Government of Nova Scotia all its interests in the minerals of the Province—A D 1849

The third shaft was sunk on the Old Sydney seam at depth of 400 feet and called the 'Queen Pit'. During this year, locomotives were used to convey coal from Sydney Mines to the shipping pier—A D 1854.

During this year, the General Mining Association surrendered their claim to all the Mines and Minerals, except the coal, within certain defined limits, thus ending what is so well known in this country as "The Duke of York's Lease". A D 1857

The Sydney Mines Volunteers were organized as two Infantry Rifle Companies in the summer of 1859. A third company of Garrison Artillery was organized in March, 1862; all were disbanded in the spring of 1864. The number of men consisted of sixty men and non-commissioned officers (including a Lieutenant Colonel and a Surgeon). None of the Volunteers ever received any pay. The officers paid for their own uniforms, and the uniforms of the men were given them by the General Mining Association. The two companies of Rifle Volunteers were inspected at Sydney Mines by the Prince of Wales (the present King), in person, on the 28th. day of July, 1860—A D 1859

Mr. Richard Brown retired, and was succeeded by his son, Mr. Richard H. Brown, a worthy successor. Mr. Richard H. Brown's name is well known among all the mining fraternity of Canada.—A D 1864.

## AROUND THE COLLIERIES.

The small fire which occurred in one of the mines of the N. S. S. and Coal Co. was put out without much difficulty and the output of the mines is again at the normal.

A St. John man declared the other day that the Halifax Exhibition had degenerated into a horse show. He said that the exhibits of some Nova Scotia manufacturers could be seen at St. John and not at Halifax. Can this be true.

Things are going along smoothly in Springhill especially about the mines, and no note of discord is heard except from the very small circle that forms around the Agnostic, the Socialist, the Old Soldier, and a few inebriates and invertebrates.

Off days, by the workman are not a distinct-ive Nova Scotian and colliery institution. The writer, a few days ago, was talking to an employer of labor in the U. S. It happened to be the Monday after pay, and half his men were off. He, with emphasis, expressed the wish that pay days were once a year instead of once a fortnight.

For the first time in years the shipments for August at every one of the big collieries show a decrease. There is not a break to relieve the monotony. Springhill is not taken into account as there were no shipments in August of last year, owing to the men having decided to take a long and fruitless holiday.

The stowing of slack coal at the present time is not peculiar to Nova Scotia. In the Pittsburg district, U. S. A., owing to the slackness of the steel trade the coal producers are obliged to store slack in considerable quantities. Within a few weeks slack has been sold in Pittsburg as low as 40cts. per ton. The operators are now storing it in hope of an advanced price in the winter.

For the seven months ending July, Canada imported 1,561,000 tons of Anthracite coal, an increase of about 100,000 tons over the same period of 1907. Taken by itself that might look as if Canada had not experienced any set back by last fall's panic. The imports of bituminous, however, tell a slightly different story. For the 7 months of this year 3,386,000 tons were imported or 483,000 tons less than for the same period last year.

The trouble which has been brewing at the Mabou Mines for the past two months came to a head a short time ago, and the mine is now in the hands of a receiver. In the process of evolution from one concern to another things got so mixed up that there was a disagreement as to which end should foot up the bills. The receiver, owing to the time the mine has come into his hands will not be able to do much. The mine is a valuable one, and with the necessary capital to put it in shape should be a good speculation for the capitalist

Much of the steady work of this otherwise dull season at Springhill, is attributable to the indefatigable Assistant General Manager, Mr. David Stewart. May he keep growing.

The unsteady workmen of Springhill are simply victimizing the steady workmen, and have been for some time. In fact the situation is not a new one by any means. The whole force is expected to be at work; about two thirds turnout; and as there is neither men nor coal to run a full day, the mine knocks off, thus throwing the majority of the men out of a days work.

It is doubtful now whether Mr. Wm. W. — will be the choice of the U. M. W. for resident secretary, but he himself does not appear to have lost hope of the preferment. Mr. W. —, so rumor says, will not accept any money from the funds of the P. W. A., for his attendance at Council meeting in Halifax. That would be consistent at least.

Ill news travels fast. I happened to be in one of the New England states the other day, and in a daily U. S. paper read a woeful account of the discharge of 500 miners in C. B. with many discharges to follow. This rather took me by surprise, as while I knew there might be slack times in the fall I did not look for them quite so soon. They say times in the States are improving by degrees; if that be so they must have been far worse than we here in N. S. had suspected.

The Record had calculated on a majority of 16 for the P. W. A. The majority in the Council resolution was 21 or 5 more than we had counted on. This is a gratifying sign and shows that the glamour of the U. M. W. is gradually fading away. There was something wrong on the first way. There was 83 were cast by 79 voters. The U. M. W. very properly challenged the vote. Gd. Master McNeil then took the heroic step of ordering a standing vote, which increased the majority for the P. W. A. by two votes.

J. W. Cumming, the Nova Scotia mine tool maker had again a display of the goods manufactured by him at the late Provincial Exhibition, which excelled any exhibit of the kind ever made in Nova Scotia. Without having formed any trust, it may be said of J. W. Cumming, pater, and of his son, who is his fathers able lieutenant, and beyond it, for high grade miners tools, such as picks, drills, punches, mauls, etc, etc. The firm puts sound material and honest work into the goods they manufacture, and therefore it is little wonder that the fame of their goods reaches from Cape Breton to Vancouver. The firm is deserving of its great success.

# AROUND THE COLLIERIES.

The probability is that for the next four weeks politics will be the leading topic in all unoccupied spaces. Oratory will come spinning out by the yard.

"A non-de-script body" that is the name a Judge of the Supreme Court of Alberta gives the U. M. W. The Judge better look out or Pats and Wats will jump on him.

Operations have been suspended in the building of the bankhead extension of No. 2 slope Springhill and the surface hands are being treated to some broken time. These are the men who feel the nip of dull times, and not the miner, to judge by the time lost by the latter when he can work.

Though some of the socialists in Cape Breton object to the P. W. A. inculcating habits of thrift and sobriety, it is pleasing to know that the Labor party in the British House of Commons, will support, almost to a man, the governments Licensing Bill. The leader of the Labor party thinks that the drink traffic is the most gigantic of all evils.

It is stated that Keir Hardie, Sherman of the U. M. W., and a Mr. Carter, will address a meeting in Glace Bay on Saturday night. The speakers, if they choose "Labor conditions in C. B." as their text will have a big and a grand subject but one on which, being outsiders, they are severally profoundly ignorant.

1200 ft. of 6 in. steam pipe and an equal length of 10 inch water column is being laid in the new extension of pipe way in No. 2 mine, Springhill. This line will connect with a large pump, in the lowest sinking of No. 2, and will be able to cope with the entire water of the mine, thus freeing the immense bodies of coal left untouched to protect the sinkings. The result in out-put of years of development will then be realized.

President R. E. Harris and General Manager Cantley of the Nova Scotia Steel & Coal Co. have testified by warm letter of thanks to the Dominion Coal Co. for the valuable and neighborly assistance rendered by promptly sending a corps of twenty two volunteers fully equipped with Draeger rescue apparatus in charge of Mr. Norman McKenzie, district superintendent of mines, and superintendent John McMahon of the rescue station.

Mr. Cantley says "I consider the apparatus to be the very greatest possible value in cases such as this or in any situation where it necessary to pass through smoke and fire damp."

As the rescue station established by the coal company at New Aberdeen is the first of its kind to be established in America, it is gratifying to know that the Draeger apparatus has thoroughly proved its efficiency under severe conditions.—Sydney Record.

Lloyd George has been visiting in Germany and went back to Britain impressed with the German scheme of compulsory insurances for invalidity and old age. Lloyd George did not need to go to Germany to learn of a good scheme for these worthy objects. Had he come to Nova Scotia we could have shown him a scheme that would have tickled his fancy, as it is much superior to the German plan. In Germany the workmen and employers only contribute, the government bearing the expense only of management. Here three parties contribute. In this matter of aid to workmen Nova Scotia takes the lead as she does in many important matters.

In discussing the statements in the press regarding the issue of a peremptory order to the Dominion Coal Company to file its factum, Mr. C. S. Campbell, K. C., stated that the preparations made last May to file the factum covered all the work necessary, excepting final revision by leading counsel. Certain people not familiar with legal forms and practice may be misled, according to Mr. Campbell, into thinking that the Coal Company is being reluctantly dragged to trial by drastic measures of its opponents, but no one at all versed in procedure does more than smile at the use sought to be made of the issue of the recent orders. The Coal Company, he said, would be well prepared when the next sittings opened in London.

<b>MONTREAL EXCURSION</b>	Going	<b>GOOD FOR RETURN</b> Oct. 5th., on tickets issued Sep. 17th. 18th. and 19th. Oct. 15th., on tickets issued Sep. 28th. 29th. and 30th., 1908.
	SEPT.	
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**Intercolonial Railway.**  
WILL SELL ROUND TRIP TICKETS FROM  
STELLARTON  
to  
MONTREAL **\$13.50.**  
Proportionately low fares from all Stations,  
Campbellton and East.

**WANTED IMMEDIATELY.**

**50 Good Miners,  
to work for the Inverness  
Ry. and Coal Company.**

— Apply at the colliery to —  
**M. S. BEATON,**  
Inverness, Aug. '08 Manager.

## AROUND THE COLLIERIES.

There is great demand for the coal from the Victoria collieries.

The Inverness Ry. & Coal Co. is building about 50 new houses for its employees.

Two idle days in one week is something new for the Dominion Coal Co's. collieries.

Dominion No. 6 is running along smoothly these days but on a reduced output.

Port Hood mine is doing well this season. Things are moving along very regularly.

No. 2 colliery, Sydney, is assuming a work-like appearance and becoming a factor as a producer.

The tunnel from Inverness mine into the 14 ft seam is progressing rapidly and soon development work will begin on that splendid coal seam.

The East slope section at Reserve has been stopped for the present, as there is not enough shipping to take away all the coal the mine can produce.

The name of the new trotting park opened on Labor Day at New Aberdeen is 'Black Diamond' Manager McKenzie's mare is in the race all the time now.

It takes a railway to give life to a town. Dom. No. 12 since railway connection has been made seems to be another place. Things are being done now on a big scale.

A new haulage engine and also a new Walker fan are being erected at Dom. No. 6, preparatory to having good ventilation and plenty haulage capacity for next seasons work.

Shipping is rather dull at the Dom. Coal Coy's. collieries at present, and Dom. No. 3, which was the only double shifted colliery, is now on single shift as there is not so much coal required.

Mabou mine is again in difficulties. This time the local government has taken hold of it, placed officials, pumpmen, firemen and shiftmen to keep it in good repair. The men's wages are overdue but are protected by the Mechanics Lien Law, under the Mines Regulation Act.

The Dominion Coal Co's. men with Draeger apparatus were sent over to Sydney Mines to help fight the fire in the pit, and did good work. The men who used the apparatus, express themselves as highly satisfied with the helmets and say that they are confident now, as they have had a good test.

As the Record predicted the U. M. W. propagandists were nicely turned down at the Annual Grand Council meeting of the P. W. A. The propagandists of the foreign order were out voted by about two to one. Those who know what the P. W. A. has accomplished, those most familiar with its working, those who can remember the old times and are able to compare them with the new will not go back on the bridge that carried them over a turbulent storm.

Development at Dom. No. 12 is progressing rapidly. Concreting for fan and engine is finished; boilers are being erected and the bank head is well under way. A village of miners houses are nearing completion and colliery buildings, such as carpenter, machine shops, forge, warehouse, lamp house, etc., are completed.

As sure as night follows day, so sure does it seem that a flood must follow the fires in the coal mines of Cape Breton. The lower section of Sydney No. 1 had to be flooded to put out a fire kindled by a shot. It was fortunate that the fire was in the lower part of the mine and easily flooded.

The Mines Department, Halifax, taking advantage of the visit of the British Sub-marine Experts had them visit Sydney Mines, Inverness and Cumberland. The student part of the mining population look forward with much interest to a perusal of the report of these men, as very little has been published on sub-marine mining, and the question in Cape Breton is a big one.

The Sydney Posts' Halifax correspondent says the vote, so largely in favor of the P. W. A., was not expected. This is a confession that the Posts' correspondent does not know the Mining Record and to confess to not knowing the Record is a confession of inexcusable ignorance. Why, even Peter Patterson and Wm. Watkins know it, though in reading it they do good to themselves by stealth, neither name being on the mailing list.

This seems to be the year of the searchlight. Lately it has been turned on the Cape Breton industries and workers in full force. First came the politicians, next came the Canadian Mining Institute with the Nova Scotia Institute and two submarine coal experts, and now we have to record a band of Italian Naval Officers. The politicians viewed and reviewed everybody and everything. The engineers and coal men viewed the collieries plans and strata, also the steel works. The Italian officers inspected the condition of the Italian mine workers, who declared themselves satisfied with their condition only the team was too dry.

The Montreal Star's special correspondent wiring that paper from Halifax anent the proceedings of Grand Council, P. W. A. says, in part:

"Just as soon as the Grand Council places itself on record on the issue the United Mine Workers will come into the province and apply for a share of the P. W. A. defence fund equal to what they have contributed. The P. W. A. will decline and a suit will be instituted in the Courts".

The despatch is very curiously worded. If the U. M. W. are going to claim only what it contributed, the matter will not be a difficult one for the Judge. They contributed nothing and their proportion is of course nothing. Admit for arguments sake that certain members in favor of the U. M. W. claim a portion of the defence fund. Is any Judge likely to give it them, scarcely. The proposition is absurd. Suppose 20 members of the C. M. E. A. at Bridgeport, Caledonia or Dom. No. 2 becoming disgruntled resolved to join the Sons of Temperance, would not the societies laugh them to scorn if they demanded a proportion of the sums they had contributed for some special work of the order. The defence fund is that of the P. W. A. and of it alone.

# Amatite ROOFING



This advertisement will bring to your attention the *best and cheapest ready roofing* on the market. Here is how we prove it the best.

In the first place Amatite is made in one standard thickness, whereas other ready roofings range from a thin, flimsy half-ply to a three-ply thickness.

The three-ply thickness (which by the way is only one sheet of felt) is the only kind that can be compared with Amatite.

But right here is the point. Amatite is better made, has better water proofing material, and weighs more per square foot than the three-ply grade of other makes, and *costs much less*.

These facts make Amatite the most desirable roofing made.

But in addition to its superiority in material and manufacture Amatite has one distinction which makes it stand out above all others. *It has a real mineral surface.*

It is hardly necessary to state the advantages of such a mineral surface, the freedom from painting or coating, the perfect protection against all kinds of weather, the great durability.

This mineral surface is embedded in a layer of Pitch, the *greatest known waterproofing material*. Beneath this in turn are two layers of the best grade of wool felt—cemented together by more Pitch, making the whole a roofing that is *absolutely water-proof*.

No other ready roofing can compare with this mineral-surfaced, water-proof, durable roof. That's why we say—*'Don't buy your roofing until you have seen Amatite.'*

### Free Sample & Booklet.

Send for Free Booklet and Sample to-day. It will pay you to get acquainted with Amatite. Address nearest office.

The GARRITTE - PATERSON M'F'G C'O'Y., Ltd.  
St. John, N. B., Halifax, N. S.

A firkin of butter two centuries old has been dug up by a farmer at Tyrone. The hoops and staves of the firkin collapsed on being lifted, but the butter is in a perfect state of preservation.

## "FENERTY" SHOVELS

—FOR—

Miners, Contractors and  
Heavy Work.

## "GILMOUR" SHOVELS

—FOR—

General Purposes,

MANUFACTURED BY

The HALIFAX SHOVEL Co  
HALIFAX, N. S.

ALL GOODS GUARANTEED.  
SPECIAL SIZES and SHAPES MADE TO ORDER.

## BRATTICE CLOTH

### TARRED AIRPROOF

ALSO

### FIRE-PROOF.

—OOOO—

As Used by the Leading Scotch-English  
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### PROMPT DELIVERIES.

DRUMMOND, McCALL & CO.

MONTREAL and LONDONDERRY, N. S.

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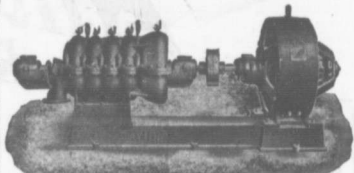
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## Purposes.

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The  
**Dominion Foundry**  
**Supply Company,**  
 Limited.  
**Montreal and Toronto.**

## Westinghouse Motors for Mines



Westinghouse Motor Driving Dayton Turbine Pump.

**A Motor exactly suited to the conditions** is essential in the correct solution of any power problem. A wide selection is afforded by the many types of Westinghouse Motors, among them you are assured of finding the motor to exactly meet your requirements.

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**Mohairs**

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**Lustres**

Have Excellent  
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WILL NOT COOKELE  
 :: WITH RAIN ::

Best for \_\_\_\_\_  
**SPRING AND SUMMER**  
**SHIRT WAIST SUITS.**

**All Ladies who wish to look well  
 wear Priestlys Dress Goods.**  
**Greenshields Limited, Sole Agents.**  
**Montreal, Canada**

### The **TORNADO** **AIR POWER** **ROAL 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**  
**H. & H. Coal Cutters & Tornado Coal Drills**  
**Belleville, ILL., U. S. A.**





### 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 100 acres, more or less.

Application for entry must be made in person by the applicant at a Dominion Lands Agency or Sub-Agency for the district in which the land is situate. Entry by proxy may, however, be made at an Agency on certain conditions.

By the father, mother, son, daughter, brother or sister of an intending home stealer.

An application for entry or cancellation made personally at any Sub-Agency's office may be voted to the Agent by the Sub-Agent, at the expense of such application into have priority and the land will be held until the necessary papers to complete the transaction are received by mail.

In case of "persecution" or fraud the applicant will forfeit all priority of claim or if entry has been granted it will be summarily cancelled.

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

When an entry is cancelled subsequent to institution of cancellation proceedings, the applicant for cancellation will be entitled to prior right of entry.

Applicant for cancellation must state in what particulars the homestead is in default.

A homesteader whose entry is not the subject of cancellation proceedings may, subject to the 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.

The homesteader is required to perform his homestead duties 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) A homesteader may, if he so desires, perform the required residence duties by living on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of his homestead. Joint ownership in land will not meet this requirement.

(3) If the father (or mother, if the father is deceased) of a homesteader eighty (80) acres in extent, in the vicinity of the homestead or upon a homestead owned in part by him in the vicinity, such homesteader may perform his residence duties by living with the father (or mother).

(4) The term "vicinity" in the two preceding paragraphs is defined as meaning not more than nine miles in a direct line, exclusive of the width of road allowances crossed in the measurement.

(5) A homesteader intending to perform his resident duties in accordance with the above white lines with parents or on farming land owned by himself must notify the Agent for the district of such intention.

Six months' notice in writing must be given to the Commissioner of Dominion Lands at Ottawa, of intention to apply for Patent.

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.

W. W. CORY,

### SYNOPSIS OF CANADIAN NORTH-WEST MINING REGULATIONS.

**COAL.** Coal lands may be purchased at \$10 per acre for soft coal land 250 feet anthracite. Not more than 320 acres can be acquired by one individual or company. Royalty at the rate of ten cents per ton of 2000 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 individual, and from \$30 to \$100 per annum for a company according to capital.

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 \$200 has been expended or paid, the locators 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 sales.

Placer mining claims generally are 100 feet square; entry fee \$10 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 leases 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 1 1/2 per cent collected on the output after it exceeds \$100.

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

# 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—

## Brick! Brick!

The Westellar Terra Cotta Company

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

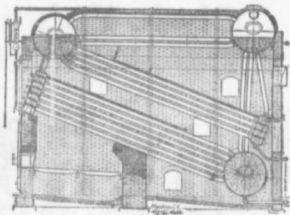
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GEO. E. MUNRO, SEC'Y, WESTVILLE, N. S.

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FREE EXPANSION OF TUBES.

PERFECT WATER CIRCULATION.

DRY OR SUPERHEATED STEAM

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Manufacturers of all Descriptions of

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BEST QUALITY ONLY.

Blasting Powder and Compressed Pellets, Dynamite,  
Gelignite, Gelatine, Dynamite and Blasting Gelatine.

## PERMITTED EXPLOSIVES.

For use in Gaseous mines. Suitable for all Kinds of Work

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Supplies of all Explosives to be obtained from  
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Cablegrams: "Ropery Rutherglen" **Rutherglen, Glasgow, Scotland.**

Codes, A B C (4th & 5th Eds)  
A. L. Listers and Private.

# Wire Ropes

for Winding & Haulage  
in Collieries and Mines.  
Aerial Ropeways, Suspension Bridges, etc. Specially  
flexible for Ore & Coal Discharging Cranes, Winches, 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 1,700,000 tons in that time and is still good for further considerable service.

Agents in Nova Scotia:—Wm. Stairs, Son and Morrow, Limited.

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—Different Sizes and Qualities kept in Stock—

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WIRE MANUFACTURERS  
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Perforated Metal of Steel, Copper, Brass, Zinc, for all purposes.  
Special attention given to Miners' Requirements.

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CANADA FOR THE CANADIANS!  
**WIRE "DOMINION" ROPE**  
For Everybody.

PATRONIZE HOME INDUSTRY

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**INVERNESS IMPERIAL COAL**

INVERNESS RAILWAY and COAL COY.  
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Miners and Shippers of INVERNESS (BROAD COVE)

**Screened, Run-of-Mine Slack.**

—First Class both for Domestic and Steam Purposes.—

**BUNKER COAL** 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.

**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  
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**MABOU, CAPE BRETON.**

INVERNESS RY. & COAL CO'Y

Time Table No. 24, Taking effect at 1 a. m.  
JUNE 28TH, 1908.

EASTBOUND			STATIONS.	WESTBOUND		
Read Down	No. 52	No. 54		Read Up	No. 51	No. 43
a. m.	p. m.	p. m.		p. m.	p. m.	
8 11 15	1 3 35		F. TUPPER JUNCTION	A 11 03A	3 35	
8 11 21	8 3 41		PORT HAWKESBURY	8 10 57B	3 27	
A 11 4	A 4 48		PORT HASTINGS	L 10 37L	3 10	
	L 4 13		TROY	A 10 25		
	F 4 25		CHERIGNISH	8 10 00		
	8 4 26		JUDIQUE	F 9 52		
	F 4 30		CRAIGMORE	N 9 32		
	8 4 30		CATHERINE'S POND	P 9 18		
	F 4 35		PORT HOOD	A 8 57		
	A 4 35		GLENCOE	8 4 44		
	8 4 35		MABOU	8 8 11		
	8 4 36		GLENDYRE	N 8 04		
	8 4 38		BLACK RIVER	F 7 44		
	8 4 40		STRATHLOUNE	8 7 24		
	A 7 15		INVERNESS	L 7 15		
	p m			8 m		

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Mines and Loading Piers, Port Morien, C. B.

Miners and Shippers of **Cow Bay Basin Coals.**

EXCELLENT FUEL FOR

**Domestic, Steamship**  
**and Railway Use.**

Recent analysis of the coals in several of the seams in this Basin—which will be persistently developed—show them to be remarkably low in ash and sulphur.

All modern appliances for Screening and picking, so that this coal can be shipped more than "reasonably free from stone and shale."

**Loading Piers at Port Morien C. B.**

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Steam Superheaters, Feed Water Heaters, Mechanical  
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*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.*

**Air Compressors, Rock Drills,  
Imperial Pneumatic Tools,  
Air Appliances, Coal Cutters,  
"EVERYTHING IN AIR MACHINERY."**

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**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.

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

Estimates Cheerfully given

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**COAL**

High Grade Fuel  
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From Coal Washed by Latest Process,  
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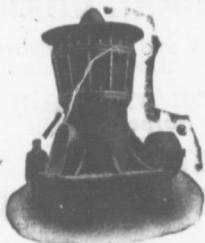
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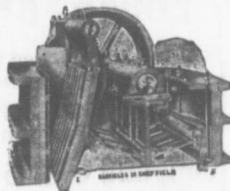
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CAST STEEL  
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### WHEELS & AXLES

WE MANUFACTURE  
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The Parts which are subject to Excessive Wear are made of  
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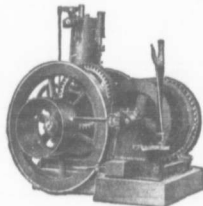
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THE IDEAL MINE HOIST

The Cheapest and  
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Can be started and stopped  
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Consumes fuel in proportion to  
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tached and used for many pur-  
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### "EDGES" BEST SPECIAL CRANE CHAINS.

Cannot be Excelled for **HIGH CLASS QUALITY** and **WORKMANSHIP**  
They are made of the very best brands of English Bar Iron and by Selected Workmen.

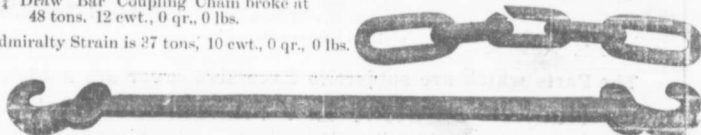
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**For Mine Cars, A SPECIALTY.**

This 1 1/2" Draw Bar Coupling Chain broke at  
48 tons, 12 cwt., 0 qr., 0 lbs.

The Admiralty Strain is 27 tons, 10 cwt., 0 qr., 0 lbs.



Draw Bar for Coal Car.

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## RAILWAY AND

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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

BEST COAL FOR  
DOMESTIC CONSUMPTION.

IN Lots To Suit Purchasers.

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Mined in the Province.

N. S.

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# 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

Caloric 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 loading  
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 or the Company.

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

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2nd. Vice President