

136 Mc Laren St

MARITIME MINING RECORD AND COAL AND METAL TRADES JOURNAL

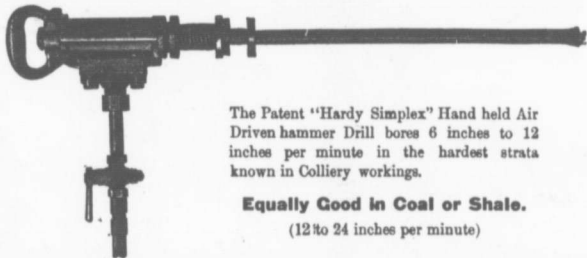
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New Series Vol. 11 No. 9 NOVEMBER 11th, 1908 STELLARTON, N. S.

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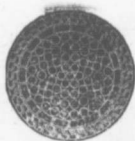
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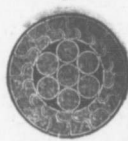
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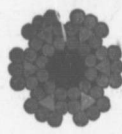
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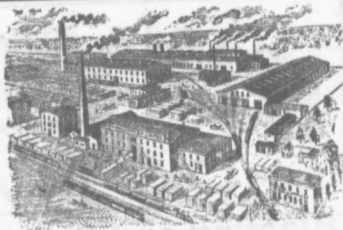
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18 Express from New Glasgow	7.35
31 Mixed from Hopewell	7.35
25 Mixed from Truro	8.00
28 Mixed from New Glasgow	10.35
27 Mixed from Pictou	10.35
56 Mixed from Halifax and St. John	12.55
19 Express from Pictou	11.00
130 Mixed from Pictou	15.10
85 Express from Halifax and St. John	15.10
30 Express from Sydney	15.40
31 Mixed from Pictou Landing	15.45
77 Mixed from Hopewell	19.25
66 Mixed from Pictou	19.45
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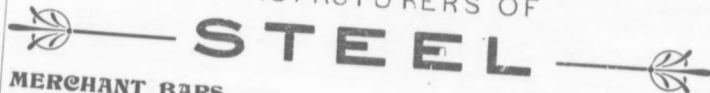
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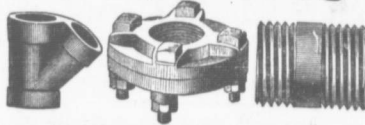
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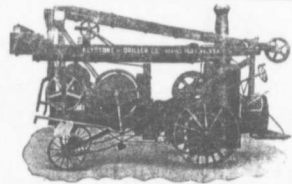


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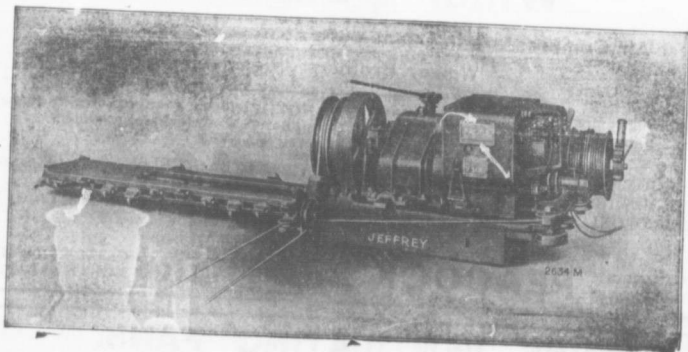
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Is more easily controlled, operated, and handled; Is simpler and has greater strength, motor power, and
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No....

MARITIME MINING RECORD

Vol. 11, No. 9.

Stellarton, N. S., Nov. 11th. 1908.

New Series

SELECTED QUESTIONS AND ANSWERS.

GEOLOGY.

Q.—What is pyrites? Where is it found, and what are its characteristics?

A.—Iron pyrites is chemically known as bisulphide of iron or FeS_2 , most commonly called coal brasses. It is a compound of sulphur and iron and certain metals, sometimes called firestone because of its hardness, and capabilities of striking fire under concussion, or because it decomposes spontaneously, developing a considerable revolution of heat.

Iron pyrites is commonly met with in and near to the coal measures. In some districts it is very abundant, but in others it is scarcely met with.

It has numerous characteristics, being a compound of iron and sulphur, and is sometimes used as a source of sulphur in various manufacturing processes, such as sulphuric acid manufacture. If allowed to weather it is converted into copperas or green vitriol. The sulphur of the pyrites will also take up oxygen, and form sulphate and free sulphuric acid.

It is very undesirable in fuel, not only on account of the corrosive and noxious gases it produces, but because the remaining iron which in the form of an oxide fuses with the silica of the coal ash and forms clinkers; in coking and gas making, the sulphur which is in organic combination is converted into bisulphide of carbon through contact with the heated carbon during the process of combustion with a limited quantity of air. When the iron pyrites is found in the shales in abundance it is largely used in the manufacture of alum in the following manner:—The shales are exposed to the effect of rain and moisture, then the iron pyrites is converted into ferrous sulphide, which is a compound of iron and sulphuric acid, and sulphuric anhydride. This sulphuric anhydride acts upon the alumina of the shale, and forms aluminium sulphate, to which either potash or ammonia is added, thus forming alum. This is the double sulphate of aluminium and either potash or ammonia, according to which is used.

In some instances, notably in the Jurassic system on the sea coast of Dorsetshire, the oxidation of the iron pyrites generates sufficient heat to ignite the bituminous shales. These shales are found interstratified in the Kimmeridge clay, and, owing to their richness in carbon, they have been largely used for fuel; the oxidation of the iron pyrites has generated sufficient heat and has set fire to the bituminous shales, which in turn fired the cliffs.

Briefly, the characteristics are—an affinity for

oxygen; an objectionable and offensive odour; it decomposes very readily and develops a considerable amount of heat during such decomposition; it is of an objectionable nature in fuel owing to its clinking propensities, and its destructive action upon the firebricks, etc.; when found in coal seams the quality of coal is reduced owing to its presence.

VENTILATION.

Q.—How would you set about restoring the ventilation in a mine where an explosion of fire-damp or coal dust has occurred? The doors and air-crossings are destroyed, but the fan is intact. What precautions would you take to secure the safety of the working men?

A.—The above question seems to suggest that the preliminaries necessary in cases of this nature, such as communicating with the inspector of mines, calling together the under officials, etc., have been made. One gathers too, that inspections have been made both above and below ground, as the condition of affairs—the doors and air crossings are destroyed, but the fan is intact—both above and below ground are stated in the question. As the question only requires the restoration of the ventilation with safety to the working men, it is unnecessary to say anything here about 'rescue work' as that subject has been much dealt with in this Journal.

One of the first of the many items to be attended to at the surface is to see that medical aid is at hand in case any of the men working underground may be overcome by after-damp or some other accident occur.

The provision of a good quantity of materials necessary for the underground operations should be arranged for, and see that there is a sufficient number of hands at the surface to send the materials down the mine at the shortest notice, and that special persons be appointed for the preparation of the materials being sent down. It would also be necessary to see that the proper persons were stationed at the winding engine, fan engine, pit head and other departments, so that these particular duties would be carried out in a truly satisfactory manner.

Having seen those items carried out to my satisfaction, I would now set abt at forming parties of the most practical and experienced men at my disposal. The parties to be made up of four, five, six, or more men. These parties I would divide into two classes, viz., the working parties, and the bearer parties; the working parties to work on the ventilating arrangements, and the bearer parties to convey materials to the scene of operations. The two classes of parties I would again divide into two, three or more shifts. 57

to say, one of the shifts only in the mine at one time, the others to remain on the surface ready to take their turn whenever the necessity arose to change those underground. The working parties I would place under the care and leadership of the under officials, and the bearer parties I would place under the leadership of the most cautious men, who are capable of leading, and who are the most acquainted with the travelling roads underground; a list of the names of the parties and leaders should be taken. A number of plans of each district should be drawn out roughly but accurately, and given to the leaders when necessary; the plans to mark the position of the doors, air-crossings; etc., and the direction and course of the air-currents.

Having seen also that there was a sufficient supply of refreshments, and that each of the men going underground was provided with a good safety lamp, I would now proceed down the mine, entering by the down-cast shaft. Arriving at the shaft bottom with the parties selected for the first shift, and whilst the parties are waiting for the materials to be sent down, I would make an inspection of the connection with the return air-way nearest the shaft in each split—if the splits were made right at the shaft bottom. Returning to the shaft bottom, where the men would now be ready and waiting my return, I would give the leaders of the parties the following instructions, with strict orders that they be carried out to the very letter: (1) That the officials operate in their own district, and that each bearer party convey materials to the district with which their leader is best acquainted (2) that the leaders are not to let their men work in the return air, but to keep always in the intake; (3) not to work more than the specified time, and should the men become exhausted before that to return to the surface at once; (4) to report to me from time to time during the shift, by the bearers or one of the party, how things are proceeding; and should anything particular crop up in any district, which would require my special attention, to communicate with me at once, so that I may visit that particular place and give the necessary instructions.

I would station myself in the most convenient place in the mine to receive reports from the different districts. In case of being called away to any district, my visit there would be as brief as possible, but sufficient, less my presence and attention may be needed in any other district.

After all the above arrangements and precautions have been made, which are of the utmost importance to the safety of the working men and for the successful carrying out of the operations, the actual work of restoring the ventilation could now commence. Beginning with the destroyed doors and air crossings nearest the shaft, in each split and with a good quantity of props, bars, deals, brattice cloth, air pipes, nails tools etc., at hand temporary arrangements could be expeditiously set up. These temporary arrangements should be so placed that the permanent ones could be completely fixed up without removing them. Then, whilst the parties fixing up the temporary doors and air crossings would be well in advance, parties for the purpose of erecting the permanent arrangements could begin work, and the two operations could be carried on at the same time, thus restoring the ventilation to its normal state with the least possible delay.

When all the permanent doors and air crossings

have been completed, and the air having taken its usual course, all the noxious gases would soon be completely carried out of the mine, which in a few hours would be in a fit state for working and travelling in.

With regard to the safety of the working men, I believe that if the instructions mentioned above were carried out thoroughly, the workmen would be exposed to very little danger indeed, as they would be always working in fresh air.

SURVEYING.

Q.—How would you make a survey with a theodolite in a working driven to the boundary, and how would you proceed to connect it with the surface?

A.—The first thing I would do would be to arrange my sights so long as I could get them, without losing a great deal of time.

Having got these fixed points, I would have a hook put into the roof or timber, so that when I was ready to start my survey it would only be necessary to put the lamp on the hook, or if an error had been made in the survey I would have these fixed points to go back to and check the survey.

The next thing to be done is to set the theodolite up between the first and second stations.

After the instrument is set up I would next level it, and then direct my telescope until it is approximately in the line of sight with the first lamp, and is then clamped to the vertical axis. The telescope can be adjusted to the line of sight by the slow motion screw fitted below the horizontal plates.

Unclamp the vernier screw, rack your instrument approximately in line with the second lamp, the bottom plate being stationary. Adjust the telescope correctly by the slow motion screw, and then read both verniers, which will give the angle between the first and second lamps. Lift the telescope out of its vertical axis, and reverse, and then repeat the operation again, which should give you the same reading.

The above process to be carried out until the whole of the survey is done.

To connect the underground workings to the surface plan can be done in two ways—by magnetic meridian, or looking up the shaft and then at some fixed object on the surface. All that is necessary is to make the underground survey to some fixed point such as the shaft, which is certain to be on the surface plan. Then you can draw your magnetic meridian, and plot your survey from the shaft in-by. If great accuracy is required, I should make a survey of the surface in connection with the underground.

THE BRITISH GOVERNMENT AND THE UNEMPLOYED.

Mr. Asquith delivered his eagerly-anticipated statement in the Commons on the unemployed, in answer to a question by Mr. Henderson. At the outset, however, he made it abundantly clear that the attention of the Government is given for the moment entirely to the special question of immediate urgency. Its proposals, he took care to explain, are limited to tiding over the distress of the present and of the coming months. They are not intended to go to the root of the evil. Roughly outlined, the Government's proposals amount to this. Sanction has been given to

local authorities to borrow something like £1,500,000 for new work. The Post Office will take on at Christmas 8,000 extra men; the War Office are prepared to accept 24,000 men for the special reserve; and the Admiralty, by a change in its programme, will spend an additional £2,000,000 on work in the dockyards. The Central Grant of last winter is also to be doubled, thus making available the sum of £300,000. As Mr. Asquith himself admitted, all these schemes are mere anodynes and temporary palliatives, but considered solely as a temporary effort to meet a pressing need, there is much ingenuity in the proposals of the Government. The employment of extra hands at the Post Office—there are always several thousand 'extras' employed at the Christmas season—will not do very much. The main provisions of the scheme are those relating to the acceleration of the naval construction programme, the special enlistment device of Mr. Haldane, and the augmentation of the loan to local authorities. From the reports already to hand there is good reason to believe that the Clyde yards will profit fairly extensively by the Government's decision to hurry on the work of building cruisers and destroyers. Only last Friday Mr. McKenna paid a high tribute to the Clyde shipbuilders, and hinted that when the orders were given out they would not be forgotten. It is interesting to note from Mr. Asquith's speech what the municipalities are doing. Since August they have applied to the Local Government Board to sanction loans amounting to £1,500,000 to be expended on additional public works, and many of them have hastened the execution of works sanctioned in previous years. In addition, considerable sums—Glasgow leads the way—have been raised by voluntary subscription. The outlook for the unemployed is therefore distinctly brighter. There are now many agencies at work apart from what the Government intend doing, and there are signs of a revival of trade. Orders, apart from those of the Admiralty, have been received by Clyde shipbuilders, and it may be that the winter, which so many poor people have dreaded, will not be so bad after all. That the Government have done their best; that they are earnest in trying to alleviate the sufferings of the poor is evidenced from the attitude of the Labor party; but we trust that Mr. Asquith will be able before this Parliament ends to strike a real and effective blow at the cause of unemployment in this country.—Glasgow Mail.

LIFE SAVING IN MINES.

Recently, at Leeds, Sir Henry Cunyninghame, in proposing the toast of the 'Mining School of the University of Leeds,' alluded to the experiments to test the explosive power of coal dust carried out at Alfofts Colliery, if they proved successful, as the most valuable mining experiments ever carried out in the history of coal mining. The object was to prove whether an isolated zone in a pit, isolated by stone dust or water, or in some other way, was capable of resisting the flame of an explosion. If that could be done, isolated zones could readily be established where it was practically impossible to keep a whole mine free from dust. The cost of isolated zones would be less, and a greater measure of safety would be secured. The newspaper writers, he thought, had taken a somewhat too sanguine view of these experiments, and, in his opinion, a great deal more careful experimentation was necessary

before Mr. W. E. Garforth, and those associated with him in this work, could really say that complete success had attended their experiments, and that the problem had been really solved. Still, they could say this much, that its solution never looked so hopeful as at the present moment. Sir Henry Cunyninghame also alluded to the question of rescue apparatus. In some quarters there seemed to be an opinion that the rescue apparatus was such a triumphant success that there was nothing now to be done but install it in every mine in the country. He himself was a strong advocate of this apparatus, and he believed it would ultimately prove successful, just as he believed before long we should have flying machines successfully flying within limits; but he did not think that complete success had yet been achieved, or that the time had yet come for the Home Office to order the establishment of a rescue apparatus at every colliery. What he would like to see established at every rescue station was a properly organized system by which men trained in the use of this apparatus could be ready at a moments notice at any time to go wherever there was an accident. A scheme should be drawn up fixing the payment to be made to these men, the insurances of the men, and the fund from which compensation should be paid to them in case of injury, and every colliery should know just where they could get the men the moment they were wanted. He earnestly hoped some such arrangement might be made without delay.

A recent development in Germany should offer great possibilities in this country says 'Chambers's Journal'. This is the supply of gas in cylinders adopted for the lighting of country houses and rural districts. The gas has been invented by Hermann Blau, a chemist, and is distilled from oil and other materials. Manufacture is carried out upon new and novel lines. The oil is fed into the retort and distilled at a lower temperature than that employed in coal gas manufacture. The by products are secured, and the gas cleaned and scrubbed in the usual manner. It is then compressed at great pressure in cylinders similar to those employed for the transportation of oxygen, the effect of this pressure being a liquefaction of the gases. The permanent gases which distillation has yielded, such as hydrogen, methane, and carbon monoxide, the chief constituents of coal gas, are then dissolved to the required extent in the liquid masses. When the pressure is relieved the liquid volatiles, carrying off a certain proportion of the gas, which were dissolved. The light obtained is of great brilliancy, while the gas is perfectly pure and harmless. The cylinders are of varying lengths and capacity, it being possible to acquire a small vessel holding one pound of gas suitable for travelling, boating, or camping out expeditions, up to large reservoirs containing heavy supplies suitable for extensive country seats. The medium size, adopted for use in small villas, will supply enough gas to meet requirements for some eight weeks. All that it is necessary to do is to install the charged cylinder in the receptacle supplied for the purpose outside the building, connect it up to a small tank in which the pressure is regulated, and then admit it to the ordinary piping system of the house. When a cylinder is empty it can be easily and quickly disconnected and a full cylinder replaced, the empty one being returned to the works for a fresh charge. There is no possibil-

ity of explosion, and no technical knowledge is necessary for its manipulation. In Germany several villages are being lighted upon this system. The distributing mains are laid in the usual manner, though small pipes need only be used, and are connected up to a small hut in which the gas cylinders are placed. The only attention required is the changing of the cylinders as they become exhausted. The system is cheap, highly efficient, and free from danger, and even the smallest villages can become possessed of a complete gas distribution plant at a nominal outlay.

REPORT OF THE FOREIGN EXPERTS ON U. S. MINES.

The three foreign experts who recently made several weeks' tour of the United States, studying conditions in the various coal fields, made a report to Secretary Garfield covering the results of their observations, together with recommendations for promoting the welfare of employees. The following are some of the recommendations. We may refer again to the report in a future issue:—

A. Selecting the Explosives to be Used.

(1) We recommend that the Government of the United States examine the explosives now and hereafter used in mining with a view to eliminating the more dangerous explosives and to improving and standardizing such explosives as may be considered most suitable for such use, these to be designated by the Government 'permissible explosives'.

The term 'permissible explosives' is suggested for the reason that no explosives are entirely safe, and all of them develop flame when ignited; and we advise therefore against the use in the United States of the terms 'safe explosives' or 'flameless explosives' as these terms may be misunderstood and this misunderstanding may endanger life.

(2) We recommend that the operators and miners of coal use only such explosives as are included in a list of 'permissible explosives', when the same has been published by the Government, in all mines where there is risk of igniting either dust or gas, selecting that one which their own experience indicates can be used to the best advantage under local conditions.

(3) We also recommend that investigations be conducted to determine the amount of charge of such 'permissible explosives', which may be used to the best advantage under different conditions with a view to reducing danger to the minimum.

B. Carrying the Explosives into the Mine.

(1) All explosives should be made into cartridges and placed in closed receptacles before being carried into the mines, and the quantity carried into the mine during one day by any miner should be limited as nearly as practicable to the quantity needed by him for use during that day. Handling loose explosives and making them into cartridges by an open light in the mine should be prevented.

(2) Detonators or caps should be handled with great care, and should be carried only by a limited number of responsible persons.

C. Use of Explosives in the Mine.

(1) Shooting in or off the solid should not be practiced.

(2) The depth of the shot hole should be less by at least six inches than the depth of the cutting of mining. The use of very deep shot holes should be avoided as unnecessarily dangerous.

(3) The overcharging of shots (the use of a larger charge than is required to do the work satisfactorily) should also be avoided as unnecessary and dangerous. The proper standardization of explosives used in coal mining will greatly facilitate the carrying out of this recommendation.

(4) Shots should never be tamped with fine coal or material containing coal. Clay or other suitable material should be supplied and used for this purpose.

(5) The firing of two or more shots in one working place, except simultaneously by electricity, should not be allowed until a sufficient interval has elapsed between the firings to permit an examination of the working place, in order to see whether any cause of danger has arisen.

(6) Before a shot is fired the fine coal should be removed from the working place, as far as practicable, and the coal dust on the floor, sides, and roof, for a distance of at least 20 yards from the place where the shot is to be fired, should be thoroughly wet, unless it has been demonstrated that the dust in the mine is not inflammable.

(7) If gas is known to occur in the mine, no shot should be fired until, in addition to the watering, an examination made immediately preceding the time for firing, by a competent person, using a lamp which will easily detect two per cent of gas, has shown the absence of that amount of gas from all spaces within twenty yards of the point where the shot is to be fired.

(8) Believing that such will be one of the greatest advantages which can be made in safe guarding the lives of the miners, we recommend the adoption of a system of electric shot-firing, in all mines where practicable, by which all shots in the mine, or in each ventilation district of the mine, may be fired simultaneously, at a time when all miners and other employees are out of the mine.

D. Keeping the Mine Roadways Clean.

(1) The roadways of the mines should be kept as free as possible from loose coal which may be ground into dust and of rubbish in which such dust may accumulate, in order to facilitate the removal and wetting of the dust.

E. Wetting the Coal Dust.

(1) In all coal mines where explosives are used it is desirable, and in all mines containing gas it is highly important, that the dust on the walls, timbers, and floors of the working places and roadways should be kept continually wet prior to and during the work in the mine. If, however, conditions of roof or lack of water render this general watering impracticable, at least the dust within twenty yards of each shot should be wet before each firing, and other precautions against explosions should be practiced with unusual care.

It is our opinion that a system of watering which occasionally sprinkles the floor only and leaves dry the dust on the walls and timbers of the roadways is useless and is also dangerous in that it may generate an unwarranted feeling of security against an explosion.

F. Special Precautions for Mines containing Gas.

(1) In any mine where as much as two per cent of gas can be detected by suitable method only locked safety lamps of an approved type should be used so long as such condition exists or is likely to recur.

All safety lamps should be maintained in good condition, cleaned, filled, kept in a special room at the surface, and carefully examined both when delivered to the miner and when returned by him at the close of each day's work. A defective safety lamp is especially dangerous because of the false feeling of security it engenders.

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.

Advertising rates, which are moderate, may be had on application.

Subscription \$1.00 a year. Single Copies 5 cents

R. DRUMMOND, PUBLISHER.

STELLARTON. N. S.

NOV. 11

- Rubs by Rambler.

A few weeks ago the obliging Keir Hardie came all the way from Halifax to Glace Bay, to tell the miners of that section, of the beauties of affiliation. It was rather a strange subject for him to take, seeing there was no movement or agitation of any kind in favor of affiliation. There was a secession movement; there were some who wished the P. W. A. to sink itself, and be swallowed up, in a foreign organization which, up to date, has not done nearly so effective work as the P. W. A. Had the U. M. W. been half wakened in the U. S.; had it not made the accumulation of strike funds its great object; had it, rather, striven towards getting laws passed that would have tended to the safety and comfort of its members, it might not be said, as it is to-day, that more men are slaughtered in the coal mines of the United States, than in any other coal mining country in the world. That by the way. To return to Keir Hardie. In order to demonstrate to his hearers the great benefits resulting from affiliation and federation, Mr. Hardie said that by these means they, the federationists, had been successful in establishing a minimum wage of 6/6 in Britain. I am surprised that some one of his hearers did not shout out: "Ah, but we got fifty per cent. better than 6/6 here." An issue or two back I showed that Mr. Hardie was incorrect in his statement, as to the minimum wage, and I am going now to rub it in. Since then I have read in the radical Weekly Mail where a meeting was held in a district in Scotland in an effort to secure higher rates for cutting. The chief speaker said that the average wage in this particular district was 5/5 or say \$1.30 per day. It is fair to assume that if the average wage in a colliery is not more than 4/6, or say \$1.08 per day. If this is the state of affairs in some parts of Scotland the ground for affiliation and federation falls to the ground. Further I read of the desire for a conference to discuss the question of a 6/6 minimum wage. If that wage has already been set, as a minimum, what's the need of a conference? There are strikes in the Lanark and Fifeshire districts, and the officials of the Union in Ayrshire have quite a crop of complaints of not being able

to earn wages'. Putting the very best face on it this means that the men are not able to make 6/6 per day, or say, \$1.50. Mr. Hardie thinks that a wage of \$1.50 is something to chuckle over, and something to thank affiliation and federation for. Well, the miners here, without these lauded systems, have a wage ranging from 30 to 75 per cent. higher than Hardie's wage, so Mr. Hardie better come back and throw a little more light on the supposed benefits sure to follow from affiliation and federation. If he succeeds in this he might proceed to show wherein affiliation and absorption are one and the same thing, and how there can be 'federation' in view of the fact that if the P. W. A. go over to the U. M. W. there will be but one body—the American U. M. W.

If the minimum wage is 6/6 what of this paragraph:

"The section in Montgomeryfield Pit who a week ago were clamoring to stop work have agreed before stopping to give it a further trial. A section in No. 11 Kenneths also complain, their average earnings being about 4s. 4d. per day. The union agents are investigating before deciding on further action."

And what of this. Surely Mr. Hardie did not attempt willfully to mislead:

"All the districts of Mid and East Lothian were fully represented at a meeting held in the miners' offices at Dalkeith on Saturday. Mr. George Young, Newbyres, presided. Additional interest was caused in the proceedings by the intimation of the threatened reduction of the wages' scale of the Scottish colliers. Mr. Robert Brown, the Scottish miners' secretary, having read the communication from Mr. Robert Baird, the coalmasters' secretary, proceeded to criticise the proposal. He said that the employers, having asked for a reduction of 3d. per day, placed the Scottish miners, in his opinion, in even a more critical condition than had obtained since the big strike of 1894, as this proposed reduction brought the wages down to 6s. per day, which the Scottish miners had determined was to be the minimum, below which they would not work in the future. He wished it to be noted that the employers had steadfastly refused to grant this 6s. minimum in times past."

While we, as Nova Scotians, are proud of our advanced mining legislation we are scarcely vain enough to take credit for that which we have not yet attained. The Canadian Mining Review, like its predecessor, is not at all times correct in its references to Nova Scotia. In a late issue it gives us credit for a law regulating 'child' labor which would place the province in the van of any nation in the world. We quote:

"No boy under the age of sixteen is permitted to work below ground, and no boy between the ages of twelve and sixteen years is permitted to work above ground unless he can furnish a certificate from a duly qualified principal to the effect that he is able to read and write, and is familiar with the rules of arithmetic as far as including division. No woman or girl of any age is permitted to be employed in the workings of any mine."

It might be well for the 'general future' not to be more specific, of the boys that they were not permitted in a mine before fourteen or fifteen,

but as yet the law does not prohibit them from entering and working in the mine if they are twelve years of age. The certificate required before a boy receives employment does not limit his knowledge to 'as far as division'. The old law has been improved upon. The statement that 'no woman or girl of any age is permitted to be employed in the workings of any mines' comes as a surprise to the writer. No woman or girl has ever to his knowledge been employed in a coal mine, but there is no law prohibiting their employment in the Mines Regulation Act. The two sub-sections bearing on the employment of boys read:

"No boy of or above the age of twelve years and under the age of sixteen years shall be employed in or about or allowed to be for the purpose of employment in or about any mine below or above ground for more than fifty-four hours in any one week, or for more than ten hours in any one day, except in case of accident or emergency."

"No boy of or above the age of twelve years and under the age of sixteen years shall be permitted to work in or about any mine below or above ground, unless he furnishes a certificate from the principal teacher of the schools or school of the section, of having satisfactorily completed the prescribed course of study up to the end of Grade seven."

In conversation with a mine manager who takes an interest in the well being and well doing of workmen, he gave it as his opinion that if much of the poverty on the other side was due to drinking, a good deal of the drinking was due to poverty. Of course he gave that as his opinion as he did not profess to be familiar with conditions on the other side. I am sure he could not justify such an opinion from his experience of and familiarity with conditions on this side. At the colliery he supervises there is the usual amount of time lost after pay days. This lost time let me admit is not all the result of drink, but by far the largest proportion is. There is a great deal of drinking and there is no poverty, that is noticeable poverty, though there may be if the drinking continues and slack times follow. If there should be poverty at some of our mines then in most cases it must be chargeable to drinking. In all nations there must be more or less poverty, but I hold now to what I have held for very many years, that there need be no able bodied poverty. If the drink traffic be eliminated, and the drug habits of course too, there should not be in the land any able bodied poor. A writer recently said that if the money spent in a year in drink were put to one side, all the surplus stocks on hand could be distributed or destroyed and every factory set in motion on full time. And I think he is not far wrong. Keir Hardie blames the present poverty on bad economic conditions, and thinks the government could end it all. Vain belief. John Burns on the other hand holds the drink traffic responsible and his is the saner view. A late debate in the British House of Commons shows that Mr. John Burns and Mr. Keir Hardie represent opposing principles on the unemployed question. Mr. Burns maintained the same view that he had elaborated in his famous pamphlet on 'Labor and Drink', published in 1904, and

pointed out that the average British workman spent five shillings a week on drink, an amount of money which, if invested in insurance and in making provision against hard times and old age, would be security from want in either case. At compound interest this saving would amount to over seven hundred dollars in ten years. Taking the working population of Great Britain, it will be seen at a glance how enormous is the waste from which the workmen suffer. It reveals, as Mr. Burns clearly proves in his pamphlet, the main source of their misery and want. Mr. Keir Hardie, on the other hand, ignoring economic arguments and the statistics by which these are supported, took the Socialistic and emotional view throwing the responsibility for the unhappy condition of the unemployed on the Government, because it had not provided for a state of affairs which had been clearly foreseen. He did not pause to consider that no Government can make good providence and waste, or that if it could the result would be purely mischievous to those for whom it was done. An old proverb says, 'You cannot eat your cake and have your cake.' Nothing could be more unwise, more ruinously absurd, than to propose, as Mr. Hardie does, that the Government should seek to better the ways of providence by undertaking to shield people from the unnecessary result of negligence which is nature's way of teaching habits of thrift and self-command.

I scarcely know what to make of the man who says that politicians and partisan writers are not all humorists. Both kinds during the late campaign afforded "no end of amusement" to those who did not deem it worth while to tear their hair over the situation. I notice where one writer mournfully regrets that the campaign was so short a one. The famous parlor car conductor, John MacRae, of County Inverness extraction or thereabouts, formerly running between Halifax and Mulgrave, now promoted to the St. John route, was asked before being transferred, by a lady passenger 'Does this train stop at Mulgrave?' John's solemn—as-an-awl aspect underwent no modification as he made reply 'God help us all if it don't.' And so in answer to the regret at the shortness of the campaign I would feign reply God help us all had it been longer. I had foolishly thought that in the last forty years I had seen some bitter campaigns, but every one was sweet compared with this last. And it was the extremes to which both sides went that made it ludicrously funny. It was sort of comic to hear the praises of a member sung on account of what he had procured for his county. Whether by persuasion and an oily tongue, or by compulsion and a shut fist we were never told. He got it by hook or by crook somehow, but just how is the secret. Of course it must be understood that the county was not entitled to it, otherwise where would the praise for the member come in. It is amusing too, to notice the manner in which the leading liberal papers took the great victory for Laurier. If specific articles in these papers were given to a stranger to read he would come to the conclusion that the party they represented had met with defeat not victory at the polls. They seem much more disappointed over the failure to elect a liberal member for this or that county than elat

over the fact that the government had been mightily sustained. They are all tears instead of being all smiles. It may be that the tory papers were seized with the numbness of despair, certain it is that they took their big defeat much more philisophically than did their opponents the loss of a certain constituency. Certain Liberal papers assert that neither Halifax, Colchester or Cumberland will on account of the way they went get the least little bit of the Transcontinental and thus Pictou County will reap the benefits of these counties' folly. Thank goodness for that same "its an ill wind that blows naebody good" but how is it proposed to bring the Transcontinental to Country Harbor without touching any part in Cumberland. A tory paper tells us olemnly that Sir Frederic's election in Kings by 500 majority is due to the fact that twenty-five ministers worked against him, and that the majority is a protest against clergymen engaging in politics. Tuts. That's jumping to a conclusion in a hurry. There were no ministers out against the Knight in 1894 and he had over double the present majority. I had hoped, in common with many that the war of vituperation would have ended with the election, but no, it still goes on; it is cheap 'copy'.

* * *

The member elect for south C. B., in a little speech thanking the electors of a colliery district for what they had done for him, made the usual promises of very good behaviour so far as promoting their interest in parliament lay, and added—this is not of course included in his parliamentary duties, that "he would do all in his power to bring about a reconciliation of the two labor factions in Nova Scotia." Ye-? The Record is not aware that there are two factions in labor circles in C. B. The Record admits to one only. The P. W. A. is not a faction; it is the original whole thing. There is a faction, one only, and that is composed chiefly of those who aspire to positions in the U. M. W., a foreign society. A faction is a turbulent, a disloyal—opposition, and that fits those who are making so much noise in the law courts. It is said that it is a very dangerous thing for an outsider to interfere with a family quarrel. The one who does so, as a rule exposes himself to two forces, and that is the way it may be with the member elect for south C. B. If he is wise he will keep out of it. The Scots have a saying in reference to those who against advise adopt a certain course, "Let them dree their weird." That is a very formidable looking sentence, but it after all only means "Let them go the way they choose." So leave that 'faction' severely alone is my advice to Mr. Madden. The P. W. A. is not going to employ taffy sticks to bring the factionists back. The conduct of these has made it impossible to hold out a peace offering. As a speaker lately said, "They cannot construct a habitable building of olive branches." If the U. M. W.'s would come back now, unrepentant, there would be no living in the house with them.

* * *

A couple of years or so ago, I made reply to a short article on socialism, written as I believed—at least I jumped to that conclusion—by a well

meaning clergyman of the presbytery of Inverness. I remember only one thing I told him, namely: that he was no socialist, simply a reformer like myself. It seems there are some clergymen who call themselves socialists who are not of the X. X. brand. In London, recently, the Rev. Thos. Yates preached a "Citizen Sunday" sermon from the text Isa. 12, 6 and 7, "They helped every one his neighbor; and every one said to his brother, Be of good courage, so the carpenter encouraged the goldsmith." Referring, in the course of his sermon to socialism, Mr. Yates expressed a similar idea to that I had touched upon only with much better emphasis. He said:—

"It is irritating to hear Christian ministers declare themselves Socialists, when, on examination their Socialism turns out to be a very earnest but decidedly vague Christian humanitarianism. Socialism is an economic and political theory, and men must make up their minds on its merits just as they do on any other economic doctrine. But Christianity is neither to be confused nor committed to a doctrine or method of economics, and it does not stand nor fall with any theory of politics. With the utmost conviction Christian men have been led to adopt this particular theory of economic development in the belief that they were taking the best way of realising a social order in harmony with the Spirit of Jesus Christ. I myself am not so convinced; but if I were a Socialist I should hope for wisdom to distinguish between the end which was Christ's end, and the method which, being human, might fail as other economic doctrines have failed, which earnest Christians have before adopted."

* * *

Though the miners of Glace Bay were told by a gentleman from the other side that they had an eight hour day in Britain, they have not there quite got it, nor is it likely such a law will be in force for some years yet. The eight hour bill was before the committee of the British House of Commons. Mr. Gladstone on behalf of the Government moved the clause, making the length of the day eight hours, exclusive of the two windings, for the next five years, and for the succeeding three years eight hours exclusive of one winding. The Government was defeated on the motion to adopt the clause. A member of committee moved eight hours for three years exclusive of the two windings, and another member that the reduction to eight hours bank to bank be extended over a period of eleven years. Neither amendment was acted upon. The Home Secretary said that if the members in a desire to have their own amendments carried coalesced against the Government, the matter would have to be dealt with on the report stage.

* * *

The Halifax Herald is crazy mad on the coasters question. In a foot note to a reasonable and sensible letter written to it by Mr. G. H. Duggan, the Herald grandiloquently asks the question: "What are 1,300,000 tons of coal to the St. Lawrence in comparison with the great shipping trade of Canada", or words to that effect as I am quoting from memory. Let me see if I can knock a little sense into the Herald. The complaint of the coasters is that Norwegian vessels—steamers

are driving them out of the trade. What trade? The coal trade to the St. Lawrence as that is the only trade in which Norwegian steamers are presently employed. In order to get quit of Norwegian vessels the Herald is willing and ready to lose all St. Lawrence shipments. Without shipments to the St. Lawrence there will certainly be no use for Norwegian steamers here. But where would the coasters profit? It might be to their profit to abolish the Norwegian vessels but to do this, and at the same time abolish the trade is silly.



The late J. W. CUMMING.

After we had gone to press last issue we received the announcement of the death of Mr. J. W. Cumming of New Glasgow, who was known from the Pacific to the Atlantic as the maker of mining tools in use at almost all the collieries in Canada. The deceased was held in high esteem by a host of friends. He was the possessor of sterling qualities which won for him the esteem of all who had the favor of his acquaintance. From small beginnings he had worked up his business until it assumed large proportions. He put himself into his work and therefore his success. The business is to be carried on by his son James T., a young man of business ability. The old staff which is thoroughly competent is to be retained, and therefore the high reputation which the products of the firm have secured will be maintained. The Record bespeaks for the son the large patronage bestowed by coal miners and coal operators on the father. The firm will be continued under the old name.

NOVA SCOTIA STEEL & COAL CO.

Shipments	Oct. 1908	64 294
"	" 1907	53 516
Increase	" 1908	10 784
Shipments 10 mos.	'08	545 305
"	" '07	518 742
Increase 10	" '08	26 563

Coal Shipments Oct., 1908

—DOMINION COAL COMPANY, LTD.—

—Output and Shipments for Oct., 1908—
—Output— —Shipments—

Dominion No. 1	44 063	
Dominion No. 2	49 769	
Dominion No. 3	19 443	
Dominion No. 4	31 156	
Dominion No. 5	42 958	
Dominion No. 6	15 477	
Dominion No. 7	15 155	
Dominion No. 8	15 511	
Dominion No. 9	28 082	294 082

Shipments	Oct. 1907	262 214	294 082
Decrease	" 1908	312 286	18 204
Shipments 10 mos.	1908	2 815 546	
"	" 1907	2 716 936	
Increase 10	" 1908	98 610	

INTERCOLONIAL COAL CO.

Shipments	Oct. 1908	18 304
"	" 1907	19 973
Decrease	" 1908	1 669
Shipments 10 mos.	1908	210 296
"	" 1907	222 547
Decrease 10	" 1908	12 251

CUMBERLAND RAILWAY AND COAL CO.

Shipments	Oct. 1908	28 992
"	" 1907	nil
Increase	" 1908	
Shipments 10 mos.	1908	305 516
"	" 1907	213 409
Increase 10	" 1908	92 107

INVERNESS RAILWAY & COAL CO.

Shipments	Oct. 1908	25 506
"	" 1907	22 275
Increase	" 1908	3 251
Shipments 10 mos.	'08	218 236
"	" '07	198 847
Increase 10	" '08	19 389

ACADIA COAL CO.

Shipments	Oct. 1908	26 308
"	" 1907	31 987
Decrease	" 1908	5 679
Shipments 10 mos.	1908	265 389
"	" 1907	262 230
Increase 10	" 1908	3 159

AROUND THE COLLIERIES.

Mr. Graham Fraser left this week for British Columbia, where he will likely remain for the next six months.

Mr. J. R. Cowans, general manager of the Cumb. R. & Coal Co., was on a visit to Boston and New York last week.

The Parrsboro and Springhill Railway will probably pass into the hands of the Government in the near future, as part of the loop promised a month ago.

The slackening off in trade at the large collieries will give the smaller concerns a chance to fill up. These have been complaining of a lack of labor for sometime.

At intervals during the past few months the Record strongly advised the colliery workers to make hay while the sun shone. Many, in view of the steady work, laughed the advice to scorn. Those who heeded it may be the happiest before next seasons shipping begins.

A week or two ago there were nearly ninety thousand tons of coal at the big banking station of the Dom Coal Co. The quantity now remaining is insignificant. It is not all probable that there will be as much coal banked the coming winter as last.

The hole that was dug before the Post Office in Springhill for the ostensible purpose of laying down a concrete sidewalk, has been abandoned by the promoters and filled up with the material taken out. The Conservatives say the dead hopes of the Liberals in Cumberland lie buried there.

A large number of I. C. R. officials went carefully over the C. R. & C. Cos. branch line between the Junction and Parrsboro. As the weather was exceptionally fine for days preceding the 26th Oct. the gentlemen enjoyed it immensely, laughing heartily at intervals at some joke, apparently kept to themselves.

Mr. Thomas Blackwood, Deputy Inspector of Mines for Pictou Co. was in Springhill recently. Tom is well and favorably known to many of the old timers in and about the mines here, who were very pleased to see him. He paid a visit to the collieries accompanied by A. V. Cameron, Deputy Inspector for Cumberland.

Considering the dire threats thrown out, of the annihilation of Cumberland industries in general, and Springhill in particular, we are as yet moving along about as usual, and working fairly steady. We will probably not be able to say as much by the time Laurier finishes his work. Eh?

The late election among other things, proved conclusively that when the people of Springhill make up their minds to a certain line of action or conduct they follow it through. The 26th. of October was a red letter day in Springhill and was a credit in every way to the town and its citizens. The entire absence of liquor accounts for it. The day was an ideal one for an election. The appearance and speech of the crowds on the street were in the highest degree respectable and decent. While chaffing was indulged in by the different groups on the street it was entirely good natured and the best of goodwill prevailed.

At least one of the C. B. newspapers has it that the output and shipments of the Dominion Coal Co. are 300,000 tons in excess of the shipments for the same period of last year. Scarcely. Now that the elections are over there is little justification for the use of hyperbole.

Though the Port Hood colliery suffered some from a shortage of water for boiler supply, the shipments for the season will show a substantial increase this season over last. The management expects by the end of the year to have shipped in the vicinity of 125,000 tons; a remarkably good showing.

There is not much of anything new to report about the collieries in Springhill. The work of development is going on along the usual lines. The tunnel being driven from No. 2 Seam, east of No. 2 Slope to No. 1 Seam has tapped the latter at 175 ft. This tunnel will open up a vast area of the very best coal; the seam is 10 ft. thick.

Twenty new tenements at Joggins are being rushed to completion by Rhodes, Curry & Co. These with the several houses the company are remodelling, will relieve the present scarcity of living accommodations. It is almost impossible to obtain board at any price, owing to the great activity around the colliery, having caused a great influx of labor.

The season for shipments by water being about over there is a slackening off in the trade of Pictou Co., and a number of the men have been discharged. Between the Acadia and the Drummond Collieries, the number is off and on about a hundred. This is to be regretted, but could not be avoided. Some of the men have consented to double up, or in other words to go shares.

Reports are current that something will be doing soon at Broughton. Thos. Lancaster, the former Gen'l Manager, Mr. Mayhew, former managing director, and some British capitalists have been viewing and reviewing the property. Broughton may be made a success if its future management dispenses with the fuss and feathers of the old. A little sense is needed to ensure success in coal mining.

The Maritime Coal Ry. and Power Company has made a most valuable find of coal on the areas owned by it at the Joggins Mines. For over thirty years persistent search has been made for the main seam of this remarkable coal basin, but although numerous bore holes have been put down, and much prospecting work done, yet all the efforts to locate the seam have hitherto failed. The News is pleased to report to day that the explorations carried on by different companies for many years have at last been crowned with success and the Main seam in this Coal Basin has been opened up. It is located about one mile to the westward of the Joggins Colliery. This discovery adds several million tons of quickly available coal to the vast quantity they now have in sight. A contract has been let for sinking a slope at this point, and a fair output could be obtained in time for next seasons shipments.

AROUND THE COLLIERIES.

Reserve colliery was steady last week.

The best daily average output in the history of Dom No. 1 colliery was attained during October.

International colliery has been subjected to the greatest amount of idle time, Dom No. 3 to the least.

The Dominion Coal Co are beginning the development work of the winter. It is early but has to be done.

The angle deep, Dom No. 1, produces a good quality of coal, being firmer in texture than many parts of the same mine.

The Northy steam pump in Dom. No. 1 has been replaced by two electric driven Turbine pumps. One 6 stage and the other 3 stage, with a capacity of 750 gals. per minute.

A new fan engine 16 x 30" and fan house has been erected at Dom. No. 1 for emergency purposes. With the placing of a few bolts, the new fan can be started in a few minutes. This is wisdom.

The coal banks were long in disappearing this summer which is a bad sign. However, few of the miners of this Province and especially Cape Breton, can say they ever witnessed such a period, ten years of unbroken prosperity.

The Sydney Mines and Glace Bay socialists are greatly disappointed at the small progress their cause is making in the United States, as shown in the votes cast for Debs at the late presidential election. Fifty per cent fewer socialist votes were cast than anticipated.

It is reported that the Dominion Iron and Steel Co. have closed a contract for 10,000 tons of steel rails for the Australian government. It is further said that they will be a demand for the company's billets and rods from Britain and other countries in Europe and as far as India. All this will help the coal trade. Of late the Steel Co. has not been using so much coal as it was stated it would at the time of the 'trial.' The quantity of coal used last month did not come near up to the 75,000 ton mark.

There has been considerable excitement in labor circles in C. B. of late. First there was the injunction restraining the Gd. officers of the P. W. A. from acting. Next there was the summary dissolution of the injunction by Judge Drysdale. Then Gd. Sec'y Moffatt was arrested on a charge of perjury in connection with the affidavits placed before Judge Drysdale, followed by the trial in Sydney in which the Irish Scotsman from Sydney mines was a star witness, but did not impress Stipendiary Hart any deeper than he did Prof. Shortt. The C. B. socialists, the self styled freers of the colliery slaves, are the worst enemies labor in C. B. has yet encountered. Selfishness stares out of their every action.

The angle deep of Dom. No. 1 runs parallel with the shore line for a distance of 3600 feet, and is distant from the shore under water 1300 feet.

The North level driven off the angle deep at Dom. No. 1 is under water 3600 feet. The face of the level is almost opposite Bridgeport rows. When this part of the mine is fully developed the angle deep will be drawing its coal supply a distance of two miles from under the Atlantic.

In response to the questions sent out by the Eight Hour Day Commissioners, the mine managers have forwarded answers. We have not heard what action, if any, the workmen have taken in regard to the questions sent to them. If the mine workers have accepted the dictation of the United Mine Worker from the Western wilds they have treated the interrogators with silent contempt. The Commission will not need to take evidence for a few weeks yet; indeed it is probable there may be no hearing of evidence till after the new year holidays. The Record regrets to add that from present trade indications there will be a number of short days between now and next July; much shorter than eight hours.

If deep shafts are sunk with their longer axis in the line of full dip, better results can be obtained in sinking, draining and securing the sides, especially in bad ground.

The percentage of coal, at present considered unrecoverable, and left in the ground in the various mining districts of the United States varies from 40 to 60 per cent.

Mr. Eugene W. Chafin, prohibition candidate for president, was asked at one of his addresses 'What do you suggest should be done to relieve the condition of the unemployed?' In reply he said: 'The workmen of this country spent a thousand million dollars last year in the saloons, for which their families received no benefit in food, clothing or shelter. If this money thus spent had been deposited in the banks, it might now be drawn out and there would be enough to buy up all the surplus manufactures in the country and set every factory in motion again.'

The makers of Amatite Roofing have advertised their goods very extensively, but the mineral surface proposition is unfamiliar to many people who do not see how it is possible to make a flexible, pliable roofing with a surface of real stone.

Any man will recognize that a mineral surface will wear longer for instance, than a painted surface, but one has to see how Amatite is made to really appreciate its advantages. The manufacturers, therefore, distribute samples very freely, and you can get one very easily by addressing a postal card to the manufacturers' nearest office, Address the Carritte-Paterson Mfg. Co., Ltd, St. John, N. B., Halifax, N. S.

Amatite

TRADE MARK

ROOFING



PAINTING a roof is work. Buying the paint is expense. Both are needless if your roof is Amatite.

When you finish laying Amatite, take away your ladder, pick up your hammer and knife, go away and leave the roof to take care of itself. A few years later you may go back and look at it if you care to, but it won't be necessary, and there won't be anything to do.

This is due to the fact that Amatite has a *real mineral surface*—a surface that is too strong to need protection—too durable to require painting.

If you buy one of the smooth surfaced roofings you will have to paint it every two or three years to keep it from leaking. In fact, such roofs depend on the paint almost entirely for their waterproofing qualities.

Amatite on the other hand depends for its waterproofing upon double layers of Coal Tar Pitch,—the greatest known enemy to water.

Amatite comes in rolls of 110 square feet ready to lay. No special tools are required, and anyone can lay it properly.

A sample of Amatite will be forwarded free on request. Send for it and see how much better it is than the kind which requires painting to keep tight.

The CARRITTE - PATERSON M'FG C'O'Y., Ltd.
St. John, N. B., Halifax, N. S.

From the Jeffrey Mfg. Company, Columbus, Ohio, we have received Booklet No. 28, descriptive of the several kinds of conveying machinery, besides much other information on other classes of machinery.

"FENERTY" SHOVELS

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Miners, Contractors and
 Heavy Work.

"GILMOUR" SHOVELS

—FOR—

General Purposes,

MANUFACTURED BY
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HALIFAX, N. S.

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 SPECIAL SIZES and SHAPES MADE TO ORDER.

BRATTICE CLOTH

TARRED AIRPROOF

ALSO

FIRE-PROOF.

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As Used by the Leading Scotch-English
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PROMPT DELIVERIES.

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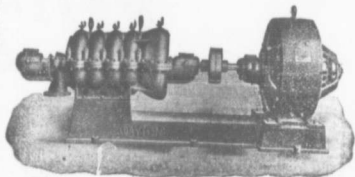
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**Dominion Foundry
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Montreal and Toronto.

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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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Have Excellent
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Best for
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 SHIRT WAIST SUITS.**

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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 9 and 20, 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 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 situated. Entry by proxy may, however, be made at an Agency, under certain conditions by the father, mother, son, daughter, brother or sister of an intending homesteader.

An application for entry or cancellation made personally at any Sub-agent's office may be wired to the 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 letter has priority and the land will be held until the necessary papers to complete the transaction are received by mail.

In case of "pre-emption" or "grant" the applicant will forfeit all priority of claim or of 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 the Agent, relinquish it in favor of his mother, son, daughter, brother or sister, if eligible, but to no one else, on filing declaration of abandonment.

The homesteader is required to perform the 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 has present residence on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of the homestead or upon a homestead resident 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 while living 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. COBY,

SYNOPSIS OF CANADIAN NORTH-WEST MINING REGULATIONS.

COAL. Coal lands may be purchased at \$10 per acre for soft coal and \$20 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 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 \$50 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 claimant, 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 \$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 lessee shall have a dredge in operation within one season from the date 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.

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—

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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.

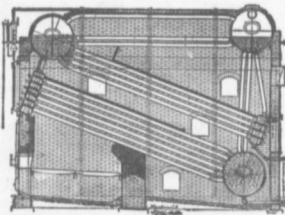
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FREE EXPANSION OF TUBES.

PERFECT WATER CIRCULATION.

DRY OR SUPERHEATED STEAM

HIGH THE USUAL NUMBER OF HANDHOLES.

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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.

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WIRE "DOMINION" ROPE
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INVERNESS RAILWAY and COAL COY.
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Miners and Shippers of **INVERNESS (BROAD COVE)**
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—First Class both for Domestic and Steam Purposes.—

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INVERNESS RY. & COAL CO'Y.

Time Table No. 20, Taking effect at 1 a. m. OCT 11TH., 1908.

EASTBOUND			STATIONS.	WESTBOUND		
Read Down	No. 52	No. 54		Read Up	No. 51	No. 53
k. m.	p. m.	p. m.		k. m.	p. m.	p. m.
L 10 45	L 1 30		F. TUPPER JUNCTION	A 10 35	A 2 35	
S 10 51	S 8 55		F. PORT HAWESBURY	S 10 27	S 3 27	
A 11 10	A 4 08		F. PORT HASTINGS	L 10 07	L 3 10	
	L 4 15		TROY	A 10 02		
	F 4 25		C. CREGNISH	F 9 55		
	S 4 35		J. CRAIGMORE	S 9 50		
	F 4 50		F. CATHARINES POND	F 9 45		
	S 5 15			S 9 40		
	A 5 35			F 9 35		
		25	PORT HOOD	L 9 30		
	S 5 55		GLENCOE	A 9 27		
	S 6 10		MABOU	S 9 20		
	S 6 25		GLENVILLE	S 9 15		
	S 6 45		BLACK RIVER	F 9 10		
	F 7 05		STRATHLOUNE	S 9 05		
	A 7 15		INVERNESS	L 9 00		
	p. m.			a. m.		

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Burns and Works like Bituminous;

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The most durable and satisfactory Packing on the Market.

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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.

Complete equipments furnished for Coal or Gold mines.

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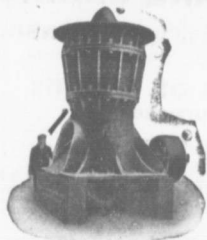
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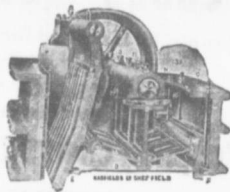
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(Solid Steel Construction.)

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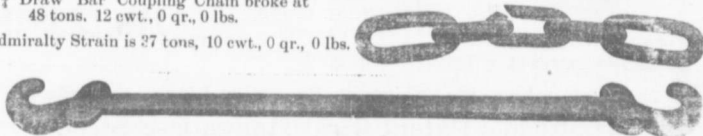
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Moisture.....	2.02 %	1.41 %	2.71 %
Volatile combustible matter	13.94 %	27.93 %	28.41 %
Fixed Carbon.....	75.29 %	67.47 %	64.69 %
Ash.....	3.75 %	3.19 %	4.19 %
	100.00	100.00	100.00
Sulphur.....	1.15 %	58 %	.79 %

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