

**MARITIME**  
**MINING RECORD**  
 AND  
**COAL AND METAL TRADES JOURNAL**

Dr. R. Bell  
 Geol. survey dept.

*Cumberland. \* Pictou. \* Cape Breton. \* Inverness*

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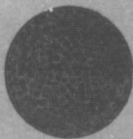
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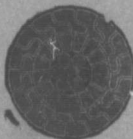
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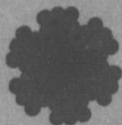
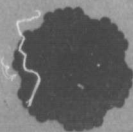
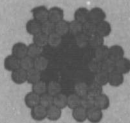
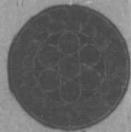
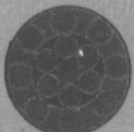
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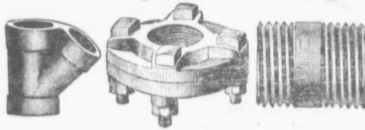
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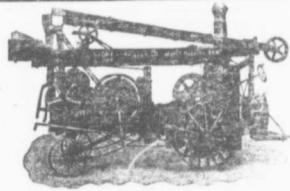
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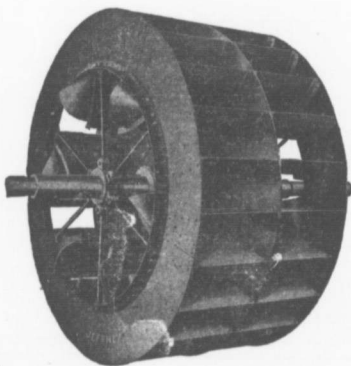
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We invite inquiries, which will have our closest attention.

**I. Matheson & Company, Limited,**

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New Glasgow, . . . Nova Scotia.

To Do....

# MARITIME MINING RECORD

Vol. 10, No. 23. Stellarton, N. S., June 10th, 1908. New Series

## COMPILED QUESTIONS AND ANSWERS

Q.—How is the comparative purity of coal seams accounted for?

A.—Of the many remarkable things in connection with coal-beds, not the least is the state of purity in which coal is found. On the floor of each forest there would be many a streamlet or even small river which would wind its way to meet the not very distant sea, and it is surprising at first that so little sediment found its way into the coal itself. But this was cleverly explained by Sir Chas. Lyell, who noticed, on one of his visits to America, that the water of the Mississippi, around the rank growths of cypress which form the 'cypress swamps' at the mouths of that river, was highly charged with sediment, but that, having passed beyond the dense undergrowth of the swamps, it issued in almost a pure state, the sediment which it bore having been filtered out of it and precipitated. This very satisfactorily explained how in some places carbonaceous matter might be deposited in a perfectly pure state, whilst in others, where sandstone or shale was actually forming, it might be impregnated by coaly matter in such a way as to cause it to be stained black. In times of flood sediment would be brought in, even where pure coal had been forming, and then we should have a thin "parting" of sandstone or shale, which was formed when the flood was at its height. Or a slight sinking of the land might occur, in which case also the formation of coal would temporarily cease, and a parting of foreign matter would be formed, which, on further upheaval taking place, would again give way to another forest growth. Some of the thicker beds have been found presenting this aspect, such as the South Staffordshire ten-yard coal, which in some parts splits up into a dozen or so smaller beds, with partings of sediment between them.

Q.—What is an explosive. Name some of them and their characteristics.

A.—An explosive is a substance the decomposition of which results in the sudden expansion of its components into a volume of heated gases many times exceeding its original bulk.

The strength of an explosive depends upon the volume of gases liberated, the rate at which decomposition proceeds, and the temperature of ignition. The gases liberated by the ignition of gunpowder, for instance, amount to about 2000 times the original volume of the powder used.

Gunpowder is largely used. It is cheap, comparatively slow in action, and therefore suitable for coal and soft rocks, and less dangerous than some of the nitro-compounds. On the other hand, it is dangerous in the

presence of fire-damp and coal-dust, and its use is now prohibited in some districts by the order of the Home Secretary.

Gunpowder, if exploded in large quantities, is also dangerous to life, owing to the large percentage of carbon monoxide it gives off; and no explosives which give rise to this gas ought to be used for blasting in mines, because of the risk of injury to health, and also because even small traces of carbon monoxide have been proved to render mixtures of coal-dust and air highly inflammable, a point frequently overlooked in experiments with explosives.

The approximate composition of ordinary gunpowder is: Saltpetre, 75 percent.; carbon, 15 percent.; sulphur, 10 percent.

Ordinary blasting-powder explodes at a temperature of 600° F.

Gunpowder is now largely used in the form of compressed cartridges or cylinders made up in various sizes to suit the different diameters of the shot holes; by using it in this way its safety and efficiency are increased. For blasting down coal, no other explosive gives such good results, while it is also cheap in price compared with other explosives.

Nitro Compounds.—In this class are included all those 'high' explosives, which are so useful in mining, particularly in blasting hard rock. Nitro-glycerine is bright yellow, oily liquid, having a specific gravity of 1.26. It freezes at 40 deg. F., and explodes with great violence at 360 deg. F., or when subjected to a sudden shock. It is less sensitive to blows and detonation when frozen than when in the liquid state. Its use in the pure state is forbidden in Britain.

Blasting Gelatine—This is one of the most powerful explosives used in mining. Its manufacture is both difficult and dangerous, but when once made it is one of the safest of explosives. It contains 93 per cent. to 95 per cent. of nitro glycerine, and 5 per cent to 7 per cent. of nitro-cotton.

It is less rapid in detonation than dynamite, and is quite insoluble in water, in which it may be kept without deteriorating. In its plastic state it is less sensitive to shocks or blows than dynamite, but when frozen it is more so.

Blasting gelatine is about three times more efficient than ordinary dynamite, and about five times stronger than gunpowder.

Dynamite.—This explosive is manufactured by impregnating Kieselerde, a spongy, infusorial earth obtained from Germany, with nitro-glycerine.

Its composition is: Nitro glycerine, 75 per cent.; Kieselerde, 25 per cent.

When in a proper condition dynamite is plastic, may be safely handled, and is very convenient for use as an explosive. Irregularly shaped holes are easily charged with it, and it does not explode at ordinary temperature

either by spark or flame, but requires detonation. When dynamite cartridges are at a temperature below 32 deg. F. they will only detonate with difficulty. When their temperature falls below 40 deg. F. they are not in a safe condition, owing to their increased sensitiveness to shock. When in a frozen condition they should only be thawed by the warming-pans provided by the makers, and not heated in tin cans over fires or carried about in trouser pockets, as it too often done by miners.

Relative Efficiency of Gunpowder and Dynamite.

For equal Weights.		For equal Bulks.	
Gunpowder	= 1.00	Gunpowder	= 1.00
No. 1 dynamite	= 3.75	No. 1 dynamite	= 6.00
No. 2 dynamite	= 2.00	No. 2 dynamite	= 3.30

The use of dynamite results in economy of labor and tamping, loose sand being sufficient. It can be used in watery rock, and gives off but little smoke.

Other much used explosives are Carbonite, Gelfignite, Ammonite, and Roburite (No. 3).

The latter is three times as powerful as an equal bulk of gunpowder. It is said to be a flameless explosive, and although fire damp was known to be present in some cases, it was not ignited, although it 'flashed' at the moment of explosion.

In all mines which are fiery or dusty, and where it is absolutely necessary to have some means of preventing flame issuing from a shot on explosion, one or other of the numerous safety explosives must be used.

How did the stupendous earth's movement come about?

A.—We can only judge that, in some way or other, heat, or the withdrawal of heat, has been the prime mover. We can perceive, from what is now going on in some parts of the earth, how great an influence it had in shaping the land, for volcanoes owe their activity to the hidden heat in the earth's interior, and afford us an idea of the power of which heat is capable in the matter of building up and destroying continents. No less certain is it that heat is the prime factor in those more gradual vertical movements of the land to which we have referred elsewhere, but in regard to the exact manner in which it acts we are very much in the dark. Everybody knows that, in the majority of instances, material substances of all kinds expand under the influence of heat, and contract when the source of heat is withdrawn. If we can imagine movements in the quantity of heat contained in the solid crust, the explanation is easy, for if a certain tract of land receive an accession of heat beneath it, it is certain that the principal effect will be an elevation of the land, consequent on the expansion of its materials, with a subsequent depression when the heat beneath the tract in question becomes gradually lessened. Should the tract be retained for a long period, the strata would be so uplifted as to form an anticlinal, or saddle back, and ancient strata would be brought to view. It was thus in the instance of the tract bounded by the North and South Downs, which were formerly entirely covered by chert, and in the instance of the uprising of the beneficent limestone between the confluents of Lancaster, Staffordshire, and Derbyshire.

How do the heat-waves act, and the laws, if any, which they obey in their subterranean movements, we are unable to judge. From the properties which heat possesses we know that its presence or absence pro-

duces marked differences in the positions of the strata of the earth, and from observations made in connection with the closing of some volcanoes, and the opening up of fresh earth-vents, we have gone a long way towards establishing the probability that there are even now slow and ponderous movements taking place in the heat stored in the earth's crust, whose effects are appreciably communicated to the outside of the thin rind of solid earth upon which we live.

#### IN LIEU OF APPRENTICESHIP.

Prof. Alexandre Marcheras, formerly director of the School of Practical Industry of Firminy, France, who has been chosen to manage the two provincial government technical schools in Montreal and Quebec, has outlined, before the Chambre de Commerce, the course of studies which he intends to organize. The method of training would be along the lines of theory combined with practice, such as adopted in France. As this training was calculated to be intermediate between the high studies in applied science and primary education, greater stress would be laid on the practical side. The pupils would be made to apply by practical work in the shops the principles underlying their respective trades. In this way the schools would endeavor to develop skilled machinists, boilermakers, carpenters, draughtsmen, blacksmiths, electricians, moulders, pattern-makers, painters, wood carvers, joiners, etc.

The course would be spread over over three years, the pupils being admitted only after the completion of their preliminary education at the primary or public schools.

On the other hand the course was calculated to afford an opportunity for practical, but unskilled, artisans to acquire the theoretical knowledge necessary to evening classes would in all likelihood have to be organized.

Prof. Marcheras dwelt at length on the advantage which the skilled artisan had over the man without the theoretical knowledge. The latter might have many good ideas, but he was unable to put them into practice. His calculations depended largely on guess-work in the case of the skilled artisan he went about his trade intelligently, knowing its underlying principles. It thus made his advancement more certain and rapid. The practical side of industrial training was scarcely less important, and the professor spoke of the handicap from a utilitarian standpoint, of a man who mastered a lot of theory without learning how to use it. This was unfortunately the defect of good deal of so-called technical training. The best results in the field of industrial education were to be obtained by a systematic combination of theory and practice.

Laborite and Radical members of the British House of Commons are protesting vigorously against the proposed visit of the King to the Czar. One writes or says, "The head of a state which prides itself on its constitutional freedom hobnobbing with a blood-stained creature like the Czar presents a spectacle of ghastly cynicism and brings upon his people national shame," and concludes: "To the Russian people our right hand of fellowship. To the Russian Czar, our spittle of contempt."

## THE JEFFREY SHORTWALL COAL CUTTER.

The economy and speed with which coal is mined by longwall machines has given rise to a very large demand for an efficient machine operating on the longwall plan for room and pillar work. Special interest therefore attaches to an announcement that the Jeffrey Manufacturing Company has added to its line of electric coal cutters a new room and pillar machine known as the Jeffrey 26 B. Shortwall coal cutter.

The difference between this and the well known breast machine built by that company, is largely in the method of cutting. The new type cuts across the face of the coal, starting at one side of the room and not stopping until it finishes the cut at the other side.

A  $\frac{1}{2}$ " steel feed cable wound upon a power driven drum at the front end of the machine pulls it across the face of the coal at a speed dependent upon, and suited to, the hardness of the cutting and the nature of the coal or clay in which the cutting is done. This drum when desired can be disengaged by means of a suitable clutch, so that the machine in finishing its cut at the left hand rib may be angled for the purpose of maintaining a uniform width of room. Another cable, having no connection whatever with the power, is arranged to act as a guide to hold the machine to its work at the proper angle for its greatest cutting efficiency.

Suitable sheave wheels are provided at convenient points on the machine to guide the feed cable so that it can be led off in any direction, thereby enabling the machine to be loaded, unloaded, moved about and pulled out from under the coal by its own power, a very desirable feature, and one which very strongly appeals to the machine runners.

The gearing is arranged so that the feed drum may be operated at a sufficiently high speed to move the machine quickly about the working place. To take care of the heaviest service, an exceptionally powerful compound wound motor is provided.

The operation of the machine may be briefly described as follows:—

It is brought into the room on a truck moved by its own power or hauled by a mule, depending on whether or not a self-propelling truck is used. A pipe jack is placed at the face of the coal at the right hand rib and the feed cable attached. The motor is then started and the machine moved to the face of the coal. A simple guiding device, consisting of a piece of tee rail and one jack, is then set up on the left hand side of the machine and the sumping cut started, the feed cable pulling the cutting frame in under the coal and the guiding device serving to hold the machine in line. When the sumping cut is completed, a steel anchor hook is secured by a wedge in the left hand rib near the face, to which are hooked one end of both the guide and feed cables which lead across the face of the coal. The cable is then attached to a jack set up at the right hand rib in line with the rear drums, and the machine started across the room. In operation, the feed cable pulls the machine across the coal face, and the guide cable keeps it at the proper angle to the face of the coal. A special flexible brand of wire with elliptical

stranding is used for the feed and guide cables, eliminating any tendency to kink or curl up when the tension is released, and materially increasing the wearing surfaces of the cable. The elasticity of the cables equalizes the shocks and jars on the machine and gives the motor an even, steady load.

When the machine reaches the left hand rib, the pipe jack is moved to a position near the truck, the feed cable attached, the machine pulled out from under the coal and over to the truck where it is loaded by its own power and is ready to move to the next working place.

Among the advantages claimed by the Jeffrey Manufacturing Co. for this, over any other make of side cutting machine, are:—

1st.—Its construction is simpler and stronger throughout, and the power of its motor equipment greater, qualifying it to perform longer and harder service and greatly reducing the danger of breakdown and cost of up-keep. 2nd.—It cuts faster, and less time is consumed preliminary to starting up and in moving the machine after the cut is finished. 3rd.—It occupies less space and permits setting the props nearer to the face of the coal. 4th.—It consumes substantially less power per cubic inch of coal cut. 5th.—It is handled by its own power more rapidly and with less exertion on the part of the machine runners.

In addition to the 26 B machine, the Jeffrey Mfg. Co. also builds a side cutter for thin vein coal, the construction and operation of which is essentially the same, no advantageous features being sacrificed to obtain the reduced height.

Both machines cut directly on the floor of the seam.

The motors furnished with these machines are of the most modern and improved types. The frames are made of cast steel with laminated pole pieces. The armatures are drum wound with form wound coils. The field coils are series wound impregnated with insulating compound and enclosed in oil and moisture proof covers. The commutator bars are of the best quality of hard drawn copper, and are insulated with mica of the proper hardness to insure even wear and long life.

## A WONDERFUL CLOCK.

One of the most wonderful clocks ever made is that which is now working at Schenectady. It was made by a watchmaker named J. Steiner, and has never been wound up. It was started some months ago by Steiner giving the pendulum a swing, and will continue to go, says he, until "the magnets lose their magnetism. What is so remarkable about it is that the works consist of only three wheels. The clock itself is in the form of a pendulum, weighing 40lb. The pendulum rods are made of different kinds of metal to allow compensation in contraction and expansion. It is said that the clock is not affected by jar or vibration, and keeps perfect time, the swing of the pendulum being regulated to beat seconds. Whatever may be thought of the principle of the mechanism or of the probability of its continuance in motion, this seems to be the nearest approach to perpetual motion yet discovered.

Mr. Thomas Cantley is home again from his trip to the other side.

The prominence given to the discussion of Socialism in these days makes it desirable that people entertained clear ideas upon the fundamental principles involved. Particularly is this the case when Socialism is considered in relation to Christianity. "It is possible to define Socialism in such a way that it is not only consistent, but identical, with the earthly mission of Christianity," points out the Rev. Dr. R. F. Horton of London. In that case we shall have a social organization in which "all men's good is each man's rule"—"Christian Socialism." Socialism, thinks this writer, as a condition better described, is each man's rule. Socialism and the Christian religion are thus seen to agree in certain aims, but in the method adopted to realize those aims on "it cannot be said that Christianity has even passed an opinion on the doctrine of State Socialism." . . . . It is evident that Christianity is looking at a different problem and working on different lines. To Socialists the material possessions are all-important; in Christianity they are secondary. In Socialism the great thing is to work for the redistribution of wealth. Christianity's reply is, Beware of covetousness. It is not therefore possible to maintain that Christianity adopts the economic method of State Socialism.

"However attractive Socialism may be as an ideal, it has not yet been shown to be possible. And even if by a stretch of imagination we grant that it is possible there are grave doubts in the minds of many as to whether it would be desirable. The more you know of the people who call out for Socialism the more you find that they have not a glimmering impression as to what it means. It would make it certain that all should get their food, that all should be fairly clothed and housed, and that all should have the necessary conveniences of life; but it would eliminate personal freedom and check some of the noblest tendencies in our human nature. The individual would have to consent to be merely part of a great machine. He would have to surrender the liberty for which men have struggled for centuries. We have to ask whether a state would be preferable where you got plenty to eat, sufficient clothes, and where you lived comfortably—at the price of liberty. The more I think of the more thankful I am that, in the ordinary course of things, before State Socialism is established in England I shall have escaped its tyranny, and shall be in the land of light and liberty forever.

Christians should be as passionately eager to save the people as the Socialist orator and worker. Christians should feel the shame and misery more keenly and sensitively than any other men on earth, because of what Jesus did and does. They should look on the vast mass of the people, those that are dispossessed and disinherited, those that are prevented from any honorable progress in life—Christians should look on these with their Lord's eyes, as their brothers and sisters for whom their Lord died. We should not leave it to Socialists to love these men more dearly than we do.

Socialism and Christianity ought to be better acquainted and agreed; there is no great difference between the principles at the root of both. Both long for a better order and better life of man. They might better be agreed if they saw that a reformed society can not be achieved unless by reformed men, and reformed men can not be truly reformed unless they

work for a reformed society. If Christians were more socialist, Socialists would be more Christian.

#### AGED MINERS' HOMES

At the annual meeting of the Northumberland Aged Mine Workers' Homes Association, the Chairman (Mr. J. Cairns) said the report was very satisfactory. The progress had been continual since the commencement of the movement. The movement was no longer in its infancy, but had taken a firm root, and continued to extend in every direction. They had something like 250 aged miners and their wives living in comfortable cottages. Many of these people had hitherto been paying exorbitant rents, and it came as a glad surprise to them when they were informed that they had become the recipients of a cottage. The association set out with the object of providing every old man and his wife with a cottage. These numbered about 500, so that they had a long way to go yet. The progress of the movement had simply been marvellous, but the governors, assisted by the miners and others, had swept away every obstacle. They were all waiting for the day when they should have the old age pensions that existed in the minds of the idealist; but the men of Northumberland were trying to increase the comfort and happiness of their old folk, and he hoped there would be no trite or captious criticism. They ought rather to keep the rest satisfied until they had a home for every aged miner and his wife, so that the last days of their lives might be their sunniest and their best.

'Christ's method of settling strikes' was the subject of a sermon by the Rev. W. D. Reid of Montreal lately. Mr. Reid spoke from Matthew xviii, 15-17, and showed that the method recommended by Christ was first to try conciliation, and if this failed, arbitration, to be enforced by law if necessary. The Leinieux Act of Canada was, he said, a step in the right direction.

'I see by Saturday's paper,' he remarked that the C. P. R. representative declares that so far as that corporation is concerned it has withdrawn from the arbitration in the dispute now going on, and that the committee may arrive at what findings it will—they will pay no heed to them. In other words, because this worthy representative cannot get his own way, he will not play the game. Now, what should be done is to arbitrate on the general premises, and let the board decide as to whether or no the east shall join with the west in this dispute, and then when that is settled, go on with the general differences, and arbitrate them, and if the men will not abide by the decision, compel them to do so, and if the C. P. R. will not abide by the decisions of the board, they should be compelled to do so, by act of parliament, if necessary. This, then, is Christ's word upon this great question. First, conciliation; second, arbitration; and third, law. Let us apply this principle to all our disputes, and we will soon end the present labor difficulties.

The steel business is said to be the great trade barometer. The mercury must be rising, as it is declared signs of revival.

## AROUND THE COLLIERIES.

The Inverness Railway and Coal Company are adding to their rolling stock. A number of large new hoppers have lately passed down the line bearing the company's name.

Up till the end of May the Nova Scotia Steel & Coal Co. had sent little or no coal to the St. Lawrence. The bulk of the May shipments went to Point Levis for the I. C. R. Some 25,000 tons were shipped there last month.

A majority of the collieries are this year well supplied with all kinds of labor. This applies more particularly to the mainland and the Dominion Coal Co's collieries. At two or three of the mines there is room for a few more men.

There has been a sensible spring clean up on surface around the Allan Shafts and the appearance of the works has been greatly improved. As in a printing office so around the collieries. Large quantities of litter gather coming piece meal from goodness knows where.

The Nova Scotia Steel and Coal Co'y. have eleven steamers engaged in the coal and ore business this season, five in the former and six in the latter. The steamers in the coal trade will average at least three trips a month, whereas a trip a month is fair work for those in the ore trade.

Two important resignations are announced. Mr. C. Fergie has resigned as Superintendent of the Dominion Coal Co's mines, his three years agreement having nearly expired; and Mr. John Moffatt has tendered his resignation as Gd. Secretary of the P. W. A. Which resignation will have the most direct bearing on the future of the coal trade of C. B. it may be hard to predict.

The Inverness News has the following in reference to mining in that town:

"Some time ago there was considerable trouble from water in the sinking and in No. 6 level, principally on account of the difficulty in keeping the pumps in order and working steadily, the water having a very injurious effect on the pumps and also on the pipe line.

This, however, has been soon-what remedied by the installation of much heavier pumps than formerly used, and in a short time three new ones will have been installed, able to pump 750, 500, and 300 gallons per hour. Wooden pipe, eight inch and five inch, procured in New York, is also being installed and this will largely remedy the trouble. At the present time the water is out of No. 6 level, and is well down in the sinking, which, however, will not be further worked at present.

The work on the angle slope is nearly completed, the distance being some three thousand feet, of which only about four hundred remain to be opened. This slope leaves the main slope about four hundred feet down, and strikes No. 6 level 2100 feet from the slope. At the foot of this slope a tunnel is being cut through to strike the thirteen foot seam. The distance is estimated at some eight hundred feet, nearly three hundred and fifty feet of which has been cut. The work is slow, only two cutters and two loaders being able to work at a time, and the work is double shifted."

The Financial Post—as well as the Record is optimistic in the matter of a settlement of the Steel—Coal dispute. We hold, with the Post, to the opinion that the real settlement will be made outside of the House of Lords.

The Mining Society of Nova Scotia has appointed committees in the various mining localities to draw up a programme in connection with the anticipated visit of the British Engineers. The party will visit all the important mines in the province. Pictou can show the visitors a big seam, a long slope and mines that have been on fire for over half a century.

In May the Dominion Iron & Steel Co. turned out nearly 22,000 tons pig iron, 5000 tons ingots, 20,043 blooms, 12,316 tons rails and 3,165 tons rods. These figures exceed the big outputs for April. The coal being supplied by the Dominion Coal Company is evidently of excellent quality.

Though the Inverness mine is doing excellently with an output of some 1200 tons a day it is probably unable on account of the heavy flow of water to produce as much as the directors had anticipated, as one of their boats had to seek a charter elsewhere. Many a growing boy has been told that his eyes was bigger than—another part of his anatomy, and it is much the same with the heads of coal companies, they can see daily products that somehow fail to make connection.

The new mine Sydney No. 4 of the N. S. S. & Coal Co. commenced to be a producer on a promising scale on the first of the month. The management made no attempts at an output until everything was in readiness for a good start. The output for the first week of operation was expected to be 400 tons per day, and this ought to be doubled as soon as another machine, or two, is installed. It is expected to get about 150 tons a day from a machine, so a few of these will give a large output.

Coal, too, in Antigonish is no new discovery. Forty years ago the then Inspector of Mines looked for speedy development. In one year about that time some \$580 were paid to the government for rights of search for coal. So far as can be learned from the Mines Report only one of the firms did active work or tried to develop their areas. In 1867 or forty-one years ago Messrs McKinnon and Chisholm who had three square miles made plans for doing some work. In 1868 the sum of \$682.50 was expended. The expenditure was in connection with a tunnel or drift driven "into the face of a hill for the purpose of cutting the seam at a lower depth, and other steps are being taken to place the mine in working order." In his report for 1869 the Inspector says: "At the Messrs McKinnon and Chisholm's mine in this County the operations have not proceeded much beyond the prospective stage; the presence of some faults near the outcrop of the seam having impeded their progress. A fresh opening however is being made and other steps have been taken to put the mine in a working position." These steps do not seem to have been successful as we do not hear of further work being done by the lessees.



# MARITIME MINING RECORD

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## - Rubs by Rambler.

Professor Shortt, the Chairman of the Conciliation Board, which sat in Glace Bay a couple of months ago, and who has the reputation of being a clear sighted man with an aptitude for seizing details speedily, figured out that through the award of the Board the Dominion Coal Co's employees were gainers to the extent of some \$73,000. Dr. Kendall told the writer that he figured it \$300,000 less. Let it stand at the less figures has not gone into the question might come to the conclusion that from this sum had to be deducted the extra price charged the workmen for coal, the extra price for powder, and the less price for pillars. But the \$70,000 remains to the good of the workmen after these deductions have been made. Evidently, and his past severe, if not harsh, criticisms of the Dominion Coal Company, will not believe for a moment that he would have acquiesced in any finding which did not do justice to the workmen. Again the price of coal was not increased to all the workmen to the amount some writers declare. The vast majority of the men affected were satisfied with the award. It is therefore a pity that there is any one, not directly interested, ready to scoff at the Board's findings. If only an act is acceptable to some workmen which all the time and on all occasions will be in their favor, the probability is that it will be a very long time before we can look for settlements of differences by conciliation or arbitration acts.

Poor Probus. He didn't take kindly to my strictures on the effusion of 'Aberdeen' in the Herald. He says I abused that writer. Not at all. I merely tried to point out how easy it is for one, in an effort to be sublime, to become ridiculous. 'Aberdeen' went soaring and thinking he was flying too high I merely sought to bring him down from things ethereal to things mundane. Poor 'Probus' thinks he'll frighten a fellow by classing me with Hughes, the P. E. L. M. P., who is alleged to have said that he would go against

any legislation coming from trades unionists. Its no 'go.' As a rule I never take back water. If 'Aberdeen' is a miner—my own idea is that he is an underminer, and works in the Herald building, Halifax—he deserves anything I gave him for putting on so many airs and talking so vainly, through his hat. So long as 'Aberdeen' talks sense he will have no friendlier critic

For the sake of the coal trade it is to be hoped that trade in general will soon have a large revival. If we have to wait for six months for the effects of the present general dullness feel the effects of the coal trade may produce this year, but what about deliveries? Are the purchasers in a position to take delivery? In many cases they cannot, and may not be able to do so. Many of the smaller consumers have store room for a comparatively small quantity. When business is brisk they can take delivery promptly, at stated intervals, for a given quantity. At present many of them can only take half the quantity they could take if trade was brisk. It is to be hoped in improvement in manufactures will set in early in Montreal and other places to which our coal is sent.

Should any of the papers again refer to cheap coal in Germany due to the act—as alleged—that the German Royal Mines set the price, and all the other operators have to govern themselves accordingly, it might be well for them to know that there is nothing in this statement of control. The Westphalian Syndicate exports coal, when it has an over supply in order to keep up the price to German buyers, and when coal is scarce the Syndicate knows how to 'lay it on'. Cheap coal in Germany, and dear coal in Nova Scotia! Indeed? Why last year if one of the Westphalian Syndicate's steamers had called at International Pier, or the wharf of the Nova Scotia Steel & Coal Co., coal would have been supplied at \$3 per ton; whereas if a boat of either of the two home companies had called at Rotterdam for bunker it could not have got Westphalian Syndicate coal under \$4.72.

We are promised a big boom in mining in Antigonish County from this out. The Lake Copper Co. has been organized and the work of development has begun. This is no new discovery. Long ago copper ore was mined in the locality and tests of the ore made deemed satisfactory but perhaps owing to the then small demand for copper the inducements were not strong enough to continue expenditures. As copper is now in great demand it is to be hoped that the present efforts to prove that Nova Scotia has copper ores of commercial value will turn out successful.

And they dare ask the miners of Nova Scotia to allow themselves to be absorbed by the U. M. W. and they dare tell us, as a reason for this great surrender, that the U. M. W. has done and is doing great things for its members. For every one right, privilege, or concession secured by the foreign society for its members, the P. W. A. has secured two for its adherents. It was the P. W.

A. that, alive to the true well being of its members, secured all the amendments and additions to the Mines Act, which places it as the foremost piece of mining legislation in the world. And while the P. W. A. was doing this what was U. M. W. doing? Its chief work was the collection of fees and dues. Read the following extract from the report of the bituminous mine inspectors for Pennsylvania, and then say it is a desirable thing to become connected with a society so inefficient, or so careless as not to have laws on the statute books providing for the safe conduct of the mine. We have in Nova Scotia already all the things the Inspectors desire for the soft coal mines of N. S. The Inspectors recommended:—"That the main developments of the mine be conducted on the four-entry system and the ventilation be controlled by overcasts; instead of numerous doors; that a different type of coal-cutting machines be substituted for the chain machines; that the best flameless explosives be used for all blasting purposes; that competent shot-firers be selected and employed to prepare, charge and fire the shots after the workmen are out of the mine. These shot-firers should have the authority to reject the charging and firing of holes which, in their judgement, would be unsafe to fire, and all stemming should be with clay or other incombustible material; that the mine be worked exclusively with locked safety lamps. That a water system be installed for the purpose of thoroughly wetting and laying the dust, and all accumulations of dust be loaded and sent out of the mine at least once a week, and said dust to be thoroughly watered before being loaded; a sufficient number of fire bosses should be employed to make careful examinations of the mine without undue haste; that the superintendent shall see that the mine foreman devotes the whole of his time to such duties in the mine as prescribed by the Act of May 15th, 1893, relating to bituminous coal mines, and he shall maintain rigid discipline at all times. We are of the opinion that had the well known safeguards, such as ample and efficient ventilation, the use of safety explosives, the thorough wetting and laying of the dust, the use of locked safety lamps, the employment of competent shot-firers, and the maintenance of rigid discipline been employed in the Darr Mine, this calamity would not have occurred." The inspectors conclude by saying that these recommendations apply not alone to the Darr Mine, but to all mines in the various bituminous districts which are gaseous and dusty.

I am again indebted to the Herald and its correspondents for further texts. One of the Herald's contributors seems a little surprised that I read the Labor Herald. Would he deny me so pleasing a pastime. I love a little light reading now and again and if there is humour in it I love it the more. Some of the Labor Herald's contributors are so funny that life would be dull without them. There's Probus for instance; isn't he a funny fellow and a great contortionist. He can act as good as a professional comedian. When he is in the spirit he can work himself up into a supreme frenzy and not only make his hair stand on end, but make his very bones tremble. Its all for effect, but the effort is so apparently mechanical, that one has to laugh at or weep for and not

with him. Probus appears to me to be an air beater and there is something amusing, if mayhap not inspiring in watching his performances. But at this time I wish to refer to some statements of a correspondent from Dartmouth whose name slips me at this moment. This correspondent claims he is a socialist. He may be on some points, on others he is sound and sensible. He opposes a statutory eight hour day on the ground that it infringes on the liberty of the workman to set his own hours. He holds, and I think rightly, that if a statute says a man shall not work more than eight hours, the same statute forbids him to work less. His hours of work then are fixed for him by statute and not by him, as an individual. I am half convinced that if the miners of Nova Scotia believed that a statutory eight hour day meant a minimum as well as a maximum of the hours each day they were to labour, very few indeed of them would join in the demand for it.

Another contributor of the Herald takes opposite ground. He is wholly in favor of an eight hour day for the joy it will bring. The Dartmouth mans views are more to my liking. Once upon a time I discussed the eight hour day with one now holding a high place in the Dominion Cabinet. A remark of his struck me forcibly, and put me on a new vein of thought. Said he 'When I was serving in the capacity of ----- I often worked sixteen hours a day, I had to do it or continue stationary,' or words to that effect. "Those who are compelled to toil do not do so for the pleasure obtained by the employment". By the way I do not like the word toil. Few of us really toil though we may all labor. We all get something, however little we may consider it, for our labor, while toil is unrequited labor. When the fishermen on the Lake of Galilee were asked by the Master how it fared with them the reply came across the water "We have toiled all night—and caught nothing" There the word is in its proper place. Thank goodness there are many who labor for the love of it, as well as for what it brings, and very few men indeed are worth a stuff who do not glory in work and their ability to engage in it. What a miserable crowd we would be if we had nothing to do. "And God cursed the ground for man's sake". "And God cursed the ground for man's sake". On ground that could produce without tillage man had made a mess of it. He got lazy, languid, and dull. He needed a tonic badly, so he was put to upwelling thistles and battling with briars, and he was more of a man thereafter. O the glory of work.

"Men who are compelled to sell their time very naturally desire to sell the smallest portion of that time for the highest possible price."

And is it not because we are all tarred with the same stick that there is so much strife and turmoil in the world. Don't the most of us wish to get the most from the least? And yet it is the remnant who play the game fair, who will dominate the world.

"The demand for less hours of work for the employed means more work for the non-employed"

But from a Nova Scotia standpoint we have had no non-employed for the past eight years. It has been all the other way, men have had to be tempted hither from other countries, and if the

hours are shortened no non-employed in this province can get the benefit. That will go to aliens and strangers. Moreover this immigration will have an ill effect whenever times become dull. The shortening of the day will not have any effect, except, perhaps, temporarily on non-employment. When men worked twelve hours per day there were fewer men out of employment, in other lands, than there is to-day; and if we shorten the day then surely machinery will be introduced to make labor perform more in a given time, and still more men will be idle. An eight hour day might possibly do good in a protected district good, where all come in who will.

"The statement of an inevitable reduction of wages, through a reduction of working hours, is not borne out by looking at the facts."

Indeed it is. Do it remembered that an eight hour day for miners is the scope of the commission lately appointed. One of the reasons urged for a shorter day is that some miners who work long hours make more money than those who work the lesser number, and these fear that big pay will lead to a reduction. Some desire an eight hour day so that not a few may be prevented working nine hours. Miners are not paid the day; they are piece workers, or on contract. A man on contract generally works for all he is worth. A day laborer if he spurted at intervals, could do, if he cared to do so, possibly as much work in nine as in eight hours, but the miner cannot load that number in eight hours, even if he takes the time. If it takes the miner fifteen boxes, and such like are the miner's loaders, they cannot load that number in eight hours, even if willing for they may not be supplied with em-pies in that time. Accordingly if the miner cuts a few boxes less coal and the loader fills a few less it is a serious loss to the miner. The eight hour day will also be a loss to the firemen and other colliery workers who are paid by the hour. And neither the price paid the miner per ton, or the rate paid the fireman per hour can be increased for the reason, that the operators cannot pay higher rates without an increase in the price of coal, and the present temper of the public—the consumers—precludes any such action. Perhaps enough has been said at this time on the subject. It would be well for the miners of Nova Scotia before demanding the passage of a statutory eight hour day to take a few things into consideration.

- An eight hour day:
- Will lessen the output of coal.
- Will tend to increase importation of aliens.
- May render the double shift necessary.
- May interfere with an occasional six hour day in hand pick mines.
- Will make necessary more development work, thereby adding to costs.
- May cause labor, on the Island especially, in the winter time to be too abundant, and thereby lessen the monthly earnings.
- I am of opinion that many miners would prefer the present arrangement of hours, to the double shift.

The resignation of Mr. John Moffatt as Grand Secretary of the P. W. A. will be a cause of regret to a majority of the more intelligent, sincere and unselfish members of the Society. During

Mr. Moffatt's incumbency the Association added immensely to its membership. The good times aided his efforts to swell the membership. In the matter of legislation, looking to the betterment of the colliery workers, he was also most successful, though his task in this respect was more difficult than the securing of new members, as the ground had been gone well over previous to Mr. Moffatt's assuming office. The reasons for Mr. Moffatt's retiring are not secret. In every society there are a certain number who think they can run affairs much better and faster than those at the head. The slowness or the seeming slowness of progress vexes these restless souls, and hence a continual clamor for a change. The numbers of the discontented may not be large, but they are numerous enough to make a disconcerting noise. These noisy ones are wise in their way. They know if they keep up jeering and sneering long enough the heart of the leaders will fail them. And the pity is that the solid men in the society do not think it worth while to stifle the agitators before their bluster has a chance to take effect.

Mr. Moffatt may be termed a moderate man, and every one of that stamp is detested by the fire-eaters, those who would right wrongs easily by bluff and bluster. But it is only moderate leaders among workmen who have ever accomplished real reforms. Such men as the late Alex McDonald, and Arthur of the Engineers Brotherhood, and Burns and Neil still with us. Your Debs's and your Keir Harlies' and such like are but flashes in the pan. It is the moral is applicable at the present time. The loudest shouters in the P. W. A. may be the loudest reforms. My opinion of Mr. Moffatt is that he is a fair man intelligent, and being intelligent, reasonable. If he was less so he might be in higher repute with the noise makers, who having come to the conclusion that they want a thing, be it right or wrong, determine to get it with or without rhyme or reason.

There are some workmen ever seeking a change. It is their way. It is a pity these would not seek to hold a good man when they have him. A former secretary of the P. W. A. used to tell the members that as soon as they were ready for a change so was he, and he took delight in telling this little incident. "Mr. Jones who at one time was secretary for the Miners Union with headquarters at Pittsburgh was found fault with at a convention for spending part of his time in a barristers office. One of the delegates got up and asked:

"I would like to know why Mr. Jones is so frequently in a lawyers office?"

Said Mr. Jones:  
"If you really wish to know I may tell you. I am learning law so that when you have done with me as you have done with every secretary who went before me, I will not be out of a job." That delegate let Jones alone during the remainder of the conference.

The labor leader who strives to be honest and honorable and who will play the game fair, or not at all, has as a rule a weary and wearing time of it. In selecting a secretary two to one the P. W. A. will go further and fare worse.

What 'Peter Patterson' of the U. M. W. doesn't know about the coal trade to Nova Scotia would fill a letter to the Herald. Peter in his bland way, in a letter to the Labor Herald says:—"I would like to ask why there should be any rivalry between the working-men of the two countries, when there is none between the capitalists, and the sooner the workmen understand this the better for themselves and their families."

Why so Peter. What harm has the lack of this knowledge ever done. Will you please go a little more into details and tell us why it would be better for themselves and families if they could but get it into their craniums, that there was no rivalry between the capitalists of the U. S. and N. S. The fact of there being no rivalry between the capitalists of the two countries is not to the point Peter. If you want to produce an argument in favor of the absorption of the P. W. A. by the U. M. W. you will have to go a few paces further, and tell us that the N. S. coal operators are quite willing that their affairs should be managed by the operators of your country. Do you think our men would do that Peter? If you do, you don't know them, really you don't. The United States operators have not, so far as is known,—I am sure they have not, asked the N. S. operators to co-operate with them, let alone hand over their affairs to be managed in the U. S.. And why have they not done so? Because they know there can be no real co operation between rivals; because they know that the interests of the N. S. operators and theirs are not identical, not by a 'long chalk'. But had they been asked the reply of the N. S. operators would be 'Oh no, we prefer to holler in our own water barrel'. And it is a surprise to me Peter, really it is, that when you asked the N. S. miners to come and play in your 'back' yard, they did not turn turk and tar you. You say further, Peter, that there can be no rivalry as your coal and ours goes to the natural markets of both countries. Well, that is only a half truth. If Ontario is a natural market for your coal, then you have it all. But where do we come in. Where is our natural market at your end. True, we send some slack coal to Boston but that is only by way of an obligement. Your natural market embraces all the country fifty miles west of Montreal. We have from there eastward. We have been trying for years, Peter, to get a slice off your market, ours being small, but with but poor success. Now, while we have been unsuccessful in invading your 'natural' territory, you have been successful in encroaching upon our preserves. You are actually this year supplying the Quebec Central with your coal, and listen, Peter, if the N. S. miners are so silly as to allow you to absorb them, b-ots and body, I wouldnt be surprised after a while to hear that you had managed to secure a big slice of the G. T. R. and C. P. R. contracts, and then where would our natural markets be?

Coal Shipments MAY, 1908

—DOMINION COAL COMPANY, LTD.,—

—Output and Shipments for May, 1908—

—Output— —Shipments—

Dominion No. 1	49 339	
Dominion No. 2	65 594	
Dominion No. 3	36 271	
Dominion No. 4	36 759	
Dominion No. 5	63 651	
Dominion No. 6	22 544	344 225
Dominion No. 7	3 749	
Dominion No. 8	19 851	
Dominion No. 9	34 770	
	332 588	344 225
Shipments May 1907		279 374
Increase " 1908		64 851

Shipments 5 mos. 1908	1 122 516
" 5 " 1907	999 736
Increase 5 " 1908	122 780

CUMBERLAND RAILWAY AND COAL CO.

Shipments May 1908	24 710
" " 1907	35 560
Decrease " 1908	11 850
Shipments 5 mos. 1908	169 238
" 5 " 1907	142 220
Increase 5 " 1908	27 018

INTERCOLONIAL COAL CO.

Shipments May 1908	22 623
" " 1907	21 813
Decrease " 1908	2 190
Shipments 5 mos. 1908	112 678
" 5 " 1907	109 553
Increase 5 " 1908	3 125

NOVA SCOTIA STEEL & COAL CO.

Shipments May 1908	67 758
" " 1907	43 348
Increase " 1908	24 410
Shipments 5 mos. '08	223 495
" 5 " '07	163 627
Increase 5 " '08	59 868

INVERNESS RAILWAY & COAL CO.

Shipments May 1908	29 429
" " 1907	21 044
Increase " 1908	8 385
Shipments 5 mos. '08	98 120
" 5 " '07	74 975
Increase 5 " '08	23 145

ACADIA COAL CO.

Shipments May 1908	25 483
" " 1907	24 047
Increase " 1908	1 436
Shipments 5 mos. 1908	131 898
" 5 " 1907	112 255
Increase 5 " 1908	19 643

## AROUND THE COLLIERIES.

The Drummond Colliery shipments for May are short in comparison with May of last year, owing to short shipments of slack coal on account of the slack work at Londonderry and other places.

If men are out of employment in the upper provinces and the United States, there is evidently no lack of work, for all who are willing, in N. S. About a fortnight ago Mr. J. R. Cowan, of Springhill, wired the mayor of Amherst that owing to many of the men leaving the mine to work on their farms, he could furnish employment to fifty loaders and other workers.

Mr. Wanklyn is in Glace Bay, and will preside in the General Office, during Mr. Duggan's absence on the other side. It is possible there may be some records during the next few weeks,—it often happens that way, though the common saying points to an opposite outcome. Mr. Duggan deserves a holiday, as hard work and he have been close companions for a long period.

The wages of miners in Britain are being reduced these days. Some four weeks ago the masters asked for a 12 per cent. reduction and were awarded 6 per cent. Later a demand has been made for a 25 per cent. reduction in some parts of the country. So far we have been most fortunate in Nova Scotia. There will be no reduction this year.

The coal trade in G. B. seems to be in a queer way. In Lanarkshire a big colliery is to be opened on the Bardykes estate by the Summerlee Iron Company. It was shut some years ago, and seven hundred miners were thrown idle, and the village of Bardykes demolished. On the other hand a lot of mines are being closed, the United Collieries Co. are closing five in Longriggend, two in Coalburn, one at Netherburn, one at Larkhall, and one at Shotts. The Wishaw Coal Company have closed the Dalziel pits, and miners are on strike at pits in Shotts, Cleland and Blantyre, because they cannot agree with the masters on wages.

The papers tell us that the 24th. of June will decide whether in the province it is to be the U. M. W. of America, or a reformed, improved, and patented P. W. A. It may be the former, and it shall be the latter, whether of a new kind, and untried, or the good old fashioned kind which never was beaten. One of the promised grand reforms is the election of the Grand Master and Grand Secretary by a vote of the members at large, and not, as hitherto, by the members through their delegates. This is not a step in advance, it is two steps backward, and will tend to strife, if not ultimately to disruption. If the scheme goes through there will be lots of fun or—uproar over the nomination, as the members at large will likely be denied the privilege. The sanctioning of a strike is of as much importance as the selection of a secretary, and if the latter has to be done by a vote of all the members, for as good reasons should also be the former.

A mile of sidings are under construction in the new yard at the Joggins.

Good progress is being made with the permanent bank head at the new Joggins slope.

The pay roll at the Joggins is now as large as it was before the old slope closed down.

The Chignecto mine output has been larger for the past three months than it has been for years.

The Inverness mine made a wonderful showing for May, in spite of the much water to contend with before the new pumps were installed.

The New Sydney No. 4 mine of the N. S. Steel & Coal Co. has now four of the chain machine coal cutters, so we may look for an output of 600 tons at an early day.

The overground men at the Drummond Colliery received an increase in their wages thereby obviating the necessity of a Board of Arbitration. The men were very lucky in face of the diminishing rates in other places outside the province.

The Collins areas on which is the mine of that name have been acquired by the McKay Mining Co., operating near North Sydney. The 'Collins' mine is an old stager having come upon the scene forty-five or more years ago. Work must have begun on the areas before the Department of Mines began to issue its regular reports, that is before 1863. In 1863 the Collins mine shipped over 4000 tons of coal and in the year following 3500 tons. After that there was a little coal raised, pre-then the areas have been idle. Ever since the slackened demand following the abrogation of that reciprocity treaty took the heart out of the owners, though their executors held on to the property for years.

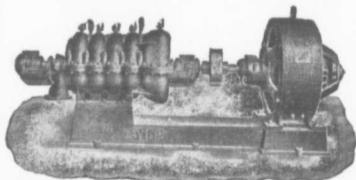
Sydney No. 2, which was dormant for the past two or three years has been unwatered. The long flooding of the mine has not, of course, had a sustaining influence on the roof and sides of the former workings, and there is a lot of debris to be cleaned out, and repairing to be done. In a few weeks No. 2 should be contributing to the output. By July the Nova Scotia Steel and Coal Co. should have five mines producing coal, and it will all be needed, for several reasons. The coal on bank this year is only half the quantity that was stocked last year. No. 1 mine getting hoary with age may not be looked for to keep up its swaggering gait of last year, and No. 3 being single shifted for the whole time now may possibly fall behind its last years output. There we have three things tending to restrict shipments, and here are three things looked for to much more than off set these: First, No. 4 a new mine is now a producer; No. 2 has been re-opened and No. 5 is in better fettle than last year, and will therefore do better. If all goes as expected, the second half of the year should make a remarkable showing.

# Plumbago for all Purposes.

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

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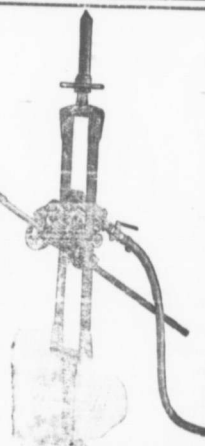
WILL NOT COOKE  
:: WITH RAIN ::

Best for —  
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### The **TORNADO** AIR POWER ROAL DRILL

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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  
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# Amatite

TRADE MARK

## ROOFING



Amatite will last for many years without any care whatever. It is made to be trouble proof as well as weather proof.

If you had a sample of Amatite in your hand you would see in an instant why it needs no painting or coating to keep it waterproof.

It has a rough surface of real mineral matter on the weather side. It is evident to anyone that it is no more necessary to paint such a surface than no paint; neither does Amatite. It is strong enough in itself to bear the brunt of wind and sun without a protective coat of paint.

To paint Amatite would be a waste of time and trouble.

A roofing that consists of smooth materials, made to receive a heavy coating of paint, is not a roofing at all—the paint is the real roof.

If you are told that certain roofings don't need painting when first laid, don't be deceived into thinking that they are like Amatite. The first coat of paint has been applied at the factory—that's all, and it will wear off in a little while and require renewal.

No paint is good enough to make a durable roof; a thick layer of pitch, faced with a real mineral surface is far better—and that means Amatite.

**FREE SAMPLE  
AND BOOKLET**

A Free Sample with Booklet will be sent on request to our nearest office.

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

### VICAR TRIES PIT LIFE.

The Rev. T. W. Dearnley, the Vicar of St. Peter's Church, Parr, St. Helens had an unusual experience at the coal face. His purpose was to test the collier's working conditions, and having done, he said: 'I'm dead tired, and shall be glad to get a good sleep.' He started about 5 a. m., and finished at 3 p. m. His working place was 4 feet 6 inches high, and about 800 yards from the pit bottom. He sent to the surface during the day about four tons of coal! 'No wonder colliers are a silent lot,' was another remark he made. 'There they go steadily all day, in all sorts of positions, and working very hard. A collier earns every penny he gets, and, above all men, the collier ought to take care of the money he does earn, and not fool it away, as so many of them, I am afraid, do.' (The last sentence might well be taken to heart by other than British Colliers—Ed. Record.

Two many aspirants for the leadership will likely cause defeat to the textile workers who came out on strike against a reduction some time ago. The former leader of the men was adverse to a strike as a re-duction had been accepted in the United States. The two chief officers disagreed on this point. The head man was dismissed and now he has formed a new organization with 900 members. The strikers will likely accept the terms offered before the strike.

**Tarred, Air Proof**

**ALSO**

**FIRE-PROOF**

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—NON-INFLAMMABLE—

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As Used  
by the Leading  
Scotch-English  
and  
Welsh Collieries

**DRUMMOND,  
McCALL & CO.**

MONTREAL and LONDONDERRY, N. S.





## Synopsis of Canadian North-West.

## Homestead Regulations.

ANY even numbered section of Dominion Lands in Manitoba or the North West Provinces, excepting 8 and 36, 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 on certain conditions by the father, mother, son, daughter, brother or sister of an intending home steader.

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 is to have priority and the land will be held until the necessary papers to complete the transaction are received by mail.

In case of "persecution" or fraud the applicant will forfeit all priority of claim or if any 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 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 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 permanent 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 entered for by him in the vicinity, such homesteader may perform his own 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. CORY,

## 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 200 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 \$500 has been expended or paid, the locator may, upon having a survey made, and upon complying with other requirements, purchase the land at \$1 per acre.

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

Placer mining claims generally are 100 feet square; entry fee \$10 renewable yearly.

A free miner may obtain two leases to dredge for gold of five miles each Interior.

The lessee shall have a dredge in operation within one season from the date of the lease for each five miles. Rental \$100 per annum for each mile of river leased. Royalty at the rate of 2 1/2 per cent collected on the output after it exceeds \$10,000.

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

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—Montreal—

—W. B. Reynolds, Halifax Representative—

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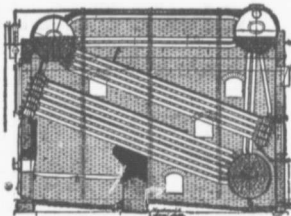
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Head Office—STELLARTON.

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 FEB. 2ND, 1908.

EASTBOUND		STATIONS.	WESTBOUND	
Read Down	No. 54		Read Up	No. 51
No. 52	No. 54		No. 51	No. 51
a. m.	p. m.		a. m.	p. m.
L 11 00	L 3 50	F. TUPPER JUNCTION	A 10 50	A 3 35
S 11 00	S 3 55	PORT HAWKESBURY	S 10 45	S 3 37
A 11 25	A 4 05	PORT HASTINGS	L 10 25	L 3 10
	L 4 15		A 10 15	
	F 4 25	TROY	F 10 07	
	S 4 30	CREGONISH	S 9 54	
	F 4 50	JUDIQUE	F 9 37	
	S 5 05	CRAIGMOORE	S 9 17	
	F 5 15	CATHERINES POND	F 9 05	
	A 5 33		L 8 47	
	L 5 36	PORT HOOD	A 8 42	
	S 5 53	GLENOB	S 8 25	
	N 6 10	MABOU	N 7 55	
	S 6 20	OLENDYRE	S 7 45	
	N 6 43	BLACK RIVER	N 7 30	
	S 7 02	STRATHLOHNE	S 7 17	
	A 7 12	INVERNESS	L 7 00	
	p. m.		A 6 15	

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**"REDSTONE SHEET PACKING,**

For highest pressures with Steam, Hot or Cold Water and Air.  
The most durable and satisfactory Packing on the Market.

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# Acadia Coal Company, Limited.

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Miners and Shippers of the

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## ACADIA COAL.

*Unexcelled for Steam, Domestic and General Purposes.*

**DELIVERED BY RAIL OR WATER.**

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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.**

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  
for Steam, Domestic and General  
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From Coal Washed by Latest Process,  
Growing more popular daily—and considered  
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**FIRE CLAY**

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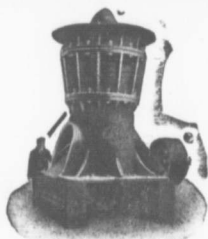
Better than  
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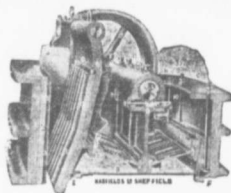
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CAST STEEL  
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SELF OILING

### WHEELS & AXLES

WE MANUFACTURE  
CRUSHING ROLLS,  
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### HADFIELD'S PATENT JAW CRUSHER

(Solid Steel Construction.)

The Parts which are subject to Excessive Wear are made of

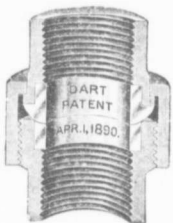
Hadfield's Patent 'Era' Manganese Steel.

Sole Representatives of the Hadfield Steel Foundry Company, Limited Sheffield, for Canada,

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### Dart Unions

The most practical appliances for connecting Pipes.  
Non-corrosive seats of bronze ground and fitted, perfectly tight. Requires no packing

**The Strongest Union  
in existence.**

*Pipe, Valves, Fittings.*



## Emerson Pumps for Mines.

PULSOMETER TYPE.

Great Capacity,  
Require little space,  
Handle Gritty Water,  
Always Ready,  
Easily Handled.

**The most Efficient and  
convenient Power Pumps  
on the Market.**

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# Canadian Fairbanks Co., Ltd.

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## CHAINS. CHAINS.

(All Sizes in Stock.)

### "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.

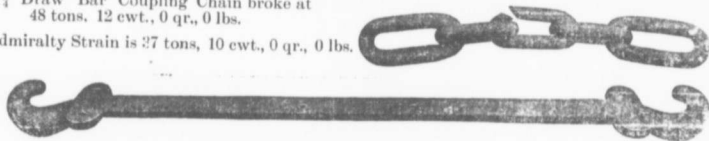
**Makers of every description of Chains  
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**Coupling Chains and Solid Forged Draw Bars**

**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.



**Edge & Sons, Limited,  
SHIFNAL, England:**

Draw Bar for Coal Car.

Tel. address "Edge" Shifnal.  
"Codes" A. B. C. and Bedford McNeills"

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## RAILWAY AND

# COAL COMPANY.

OPERATING THREE  
THICK SEAMS  
NOS 1, 2 AND 3.

—Miners and Shippers of the Well Known—

## FRESH MINED SPRINGHILL COAL

... ANALYSIS ...

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

BEST COAL FOR  
LOCOMOTIVE USE.

Delivered By Rail or Water

BEST COAL FOR  
GENERAL STEAM PURPOSES.

**The year Round**

IN Lots To Suit Purchasers.

BEST COAL FOR  
DOMESTIC CONSUMPTION.

**BEST GAS COAL**

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Mined in the Province.

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Head Office

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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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