

MARITIME MINING RECORD

Dr. R. Bell
Geol. survey dept.

AND
COAL AND METAL TRADES JOURNAL

Cumberland. * Pictou. * Cape Breton. * Inverness
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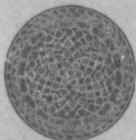
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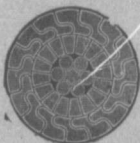
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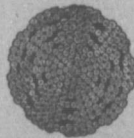
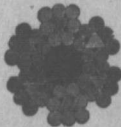
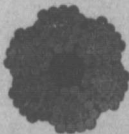
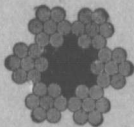
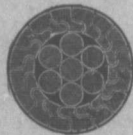
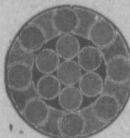
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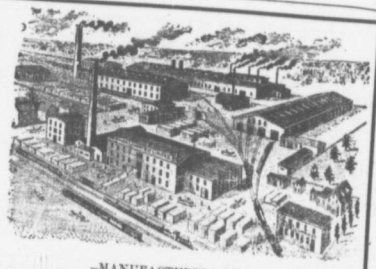
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55 Mixed for Mulgrave	8.45
19 Express for Sydney	8.15
25 Mixed for Pictou	11.10
56 Mixed for Truro	11.15
129 Mixed for Halifax and Montreal	11.50
30 Express for New Glasgow	12.50
140 Mixed for Pictou	12.55
191 Mixed for Pictou Landing	16.00
22 Mixed for Hopewell	16.50
65 Mixed for New Glasgow	18.10
17 Express for New Glasgow	19.50
66 Express for Pictou	21.30
66 Express for Pictou	21.49

—TRAINS ARRIVE AT STELLARTON

79 Mixed from Trenton	5.50
61 Express from Pictou	6.50
18 Express from New Glasgow	7.30
21 Mixed from Hopewell	7.35
55 Mixed from Truro	7.35
140 Mixed from Pictou Landing	8.00
25 Mixed from Pictou	8.25
27 Mixed from Pictou	10.55
66 Mixed from Mulgrave	10.55
19 Express from Halifax and St. John	11.30
19 Mixed from Pictou	11.00
19 Mixed from Sydney	15.40
22 Mixed from Pictou Landing	15.45
77 Mixed from Hopewell	18.10
65 Express from Pictou	18.45
66 Express from New Glasgow	19.25
17 Express from St. John and Halifax	21.25
66 Express from Pictou	21.30

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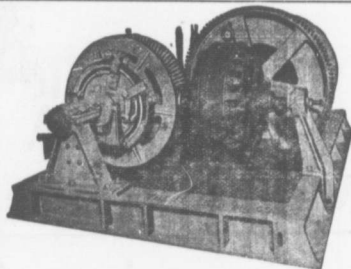


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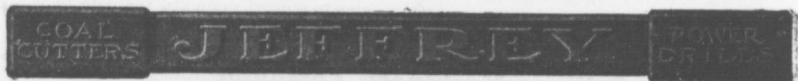
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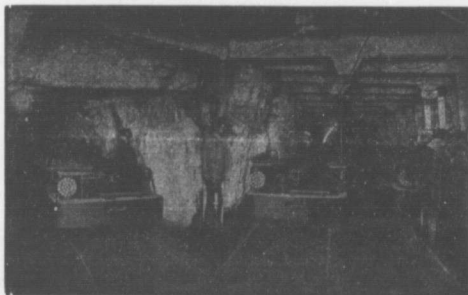
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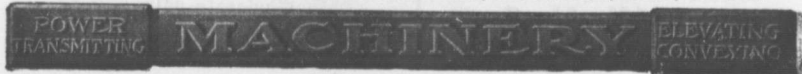
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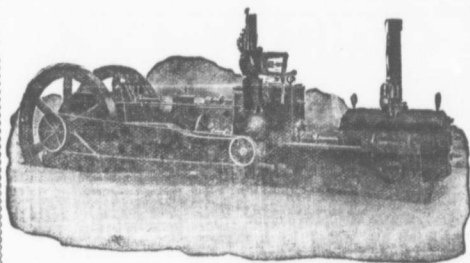


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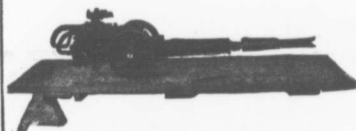
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The...

MARITIME MINING RECORD

Vol. 8, No. 21. Stellarton, N. S., MAY 9th. 1906 New Series

HEAT AS A MODE OF MOTION.

(FOR THE RECORD.)

The withdrawal of heat by a good conductor, is strikingly illustrated by the action of wire gauze upon flame. Holding a piece of such gauze, horizontally, I bring it down upon a ball gas flame. You might imagine that the flame would readily pass through the open meshes of the gauze, but not a flicker passes. The combustion is entirely confined to the space under the gauze. I extinguish the flame and allow the unignited gas to stream from the burner. The wire gauze being placed above the burner the gas freely passes through the meshes. On igniting the gas above, we have the flame, but it does not propagate itself downwards to the burner. Between the burner and the gauze is a space of four inches filled with gas, in a condition eminently favourable to ignition, but which does not ignite. This metallic gauze then, which allows the gas to pass freely, intercepts the flame. And why? A certain temperature is necessary to cause the gas to burn; by placing the wire gauze over the flame or the flame over the gauze, the motion of that light and quivering thing is rapidly taken up by a comparatively heavy metal, which is a good conductor of heat. The intensity of the molecular motion is so much lowered that it is incompetent to propagate the combustion to the opposite side of the gauze. If this waste of motion could be avoided—if all the heat communicated to the gauze could be retained by the gauze it would eventually rise to the temperature of the flame. The gauze however, is continually wasting its heat by radiation, and by contact with cool air and the flame can heat it no further than the point at which the waste, in a given time, is equal to supply.

Sir H. Davey after having assured himself of the utility of the wire gauze applied it to the construction of a lamp, which would enable the miner to carry his light into an explosive atmosphere. He surrounded a common oil lamp by a cylinder of wire gauze. So long as the lamp is fed by pure air, the flame burns with the ordinary brightness of an oil flame, but when the miner comes into an atmosphere containing fire-damp, the flame enlarges and becomes less luminous. This enlargement of flame ought to be taken as a warning to retire. Still though a continuous explosive mixture extends from the air outside through the meshes of the gauze, to the flame within, ignition is not propagated across the gauze.

A defect in the gauze, the destruction of a wire at any point by oxidation would cause an explosion. The rapid motion of the lamp through the air, or the impact of a "blower" upon the lamp might also force the flame through the gauze; in short, a certain amount of intelligence and caution is necessary in using the lamp. This intelligence, unhappily, is not always possessed, nor is this caution, always exercised, and the consequence is

that even with the safety lamp explosions still occur.

Before permitting a man or boy to enter a mine, would it not be well to place these results by experiment before him? Mere advice will not enforce caution, but let the miner have the physical image of what he is to expect, clearly and vividly before his mind, and he will find it a restraining force, a monitory influence long after the effect of cautionary words have passed into oblivion.

SOME ERRING PROPHETS.

It occasionally happens that the predictions and theories of mathematicians and scientists are woefully upset and contradicted by actual results. Every one is familiar with the story of the editor who, in the days of Stephenson's early experiments in railroading, predicted that a speed of more than 12 miles an hour by rail would be impracticable if for no other reason than that the human system would not withstand travelling at a higher rate of speed. In the early days of steam navigation also Dr. Lardner delivered an address before a scientific body, in which he maintained that transatlantic steam navigation was impracticable, mainly because of the inability to provide room aboard ship for the coal that would be necessary for the voyage. It is recalled by Cassier's Magazine that the meeting had scarcely adjourned before the news arrived that a ship had just completed a transatlantic trip under steam. In another case a number of individuals promulgated their belief that it would never be possible to successfully lay a cable across the Atlantic, because, as they said, the density of the water below a certain depth would be so great that the cable would not sink to the bed of the ocean. Regardless, however, of these predictions, the cable promptly sank to the bottom of the sea. At that time also, it may be noted, the greatest ocean depths in which cables were laid was only about 16,404 feet. Within the past year a cable has been successfully laid by a German company in the Pacific Ocean in the vicinity of the Luikin Islands at a depth of 26,246 feet. In still another instance the author of a well known text book on telegraphy, published in the sixties of the last century, expressed the opinion that while the idea of duplex telegraphy, or the sending of two messages at once over one wire, was very beautiful in its way, it must be looked upon as little more than a feat of intellectual gymnastics, and quite useless from a practical point of view. Within less than a decade after the publication of this opinion not only was the duplex telegraphy in practical operation, but quadrupled telegraphy, or the sending of four messages at once over one wire, was also an accomplished fact. Notwithstanding that instances of this kind could be multiplied, there are still to be found people ready to write themselves down to posterity as erring

prophets, and so it will doubtless be to the end of the chapter. Fortunately however, for the sake of progress there are, on the other hand, always optimists enough to offset the discouraging views of the pessimists.

WIND POWER.

The chief objection to wind power practically is its uncertainty in amount and the variable speed of the motor itself. Under stress of necessity there is little doubt that the regulation difficulty would be, in great measure, overcome so as to give practically uniform speed over a pretty wide range of wind pressure. The average velocity of the wind is low, in most places between 5 and 10 miles an hour, corresponding, respectively, to wind pressures of from 2 to 8 ounces per square foot. These are too low to be conveniently utilized, on account of the large dimensions demanded in the motors. During portions of nearly every day, however, somewhat higher velocities are recorded, since the averages contain considerable periods of very light breezes occurring often within a few hours before and after sunrise and sunset. Hence, says Dr. Louis Bell in Cassier's Magazine, there are few days without periods of brisk breezes of from 15 to 20 miles an hour, giving wind pressures of from one to two pounds per square foot. On the other hand, winds exceeding thirty miles an hour (4.4 pounds per square foot) are sufficiently rare to be the subject of special record in the Weather Bureau. An effective wind motor should be able to work at good advantage up to, say, 5 pounds per square foot pressure at fairly uniform speed, and should be robust enough to stand up against winds of 50 or 60 miles an hour without going by the board. For certain uses, such as pumping, speed regulation is not necessary, but if wind power is to be included as a resource in the general power situation, even on a small scale, regulation is necessary, and it has thus far been carried out only to a very limited extent. It is probable that winds may be relied upon for the ordinary uses of agricultural communities, although they do not form, save in the region of the trades, anything like a reliable source of power. For the larger work of power production they cannot well be regarded as important, and in certain districts they are too unreliable even for casual use.

STEEL RAILWAY CARS.—An American scientific journal believes that steel cars will yet be compulsory on American railroads. Derailment and collision are the chief cause of death and injury to railway passengers, and experience has proved that steel cars are safer than wooden ones in collisions. Steel cars are not "telescoped," but slide past each other or else are turned aside in collisions, and the passengers are not likely to be seriously injured. Composite cars with steel under frames and the all steel cars of the New York Subway, have probably saved more lives and limbs than the company would care to admit.

The following is from a British paper:—

The coming winter promises to be the brightest ever experienced in the coal trade in Nova Scotia. The time is not far distant when Nova Scotia will utilise two million tons of coal per year. The coal pocket structure at St. John measures 200 ft. long, 36 ft. wide, and 56 feet high from the wharf line. The pocket will have a capacity of 5000 tons, and by the utilization of up-to-date machinery the average vessel will be emptied in ten hours, at a cost of three-quarters of a cent per ton.

THE FRENCH MINERS HOME LIFE.

SELECTED.

Courrières, the scene of the greatest colliery disaster ever recorded, and the most thrilling escape of a handful of men, led by the brave Nemy, after 20 days entombment, forms a portion of one of the most interesting districts of France. This mining district, whose centre is at Lens, seems to be peopled by a race apart, a self-contained community, with habits and manners of their own, quite unlike the rest of their countrymen. From earliest childhood the people born in this region live in an atmosphere of coal dust, and work of some kind or other in the collieries seems their pre-destined end. There is among them a large sprinkling of Belgians, but these "foreigners" are regarded generally, if not with suspicion and dislike, with some indifference not untinged with contempt.

Over the whole district the air hangs heavy with floating particles of coal. Vast mountains of shale raise themselves like some huge system of fortifications on every side, and at night the district is aflame with fires leaping from innumerable furnaces. It is in this world of coal that the French miner lives from boyhood to old age, and in which he rears his children, making miners of them, too, from generation to generation.

With their wives and families they live in large village settlements called "corons" each consisting of a large number of brick cottages. Each tenement holds one family. When there is spare room the occupants of the cottages take in as lodgers the single men among the miners. These "corons" are the property of the mining companies, who charge their tenants a nominal rent of from six to eight francs a month, little more than will cover the cost of maintenance and repairs.

Early and late the colliers can be seen making their way to the pit shaft. They are of both sexes and of all ages—from the lad of twelve to the bowed man of sixty, the anemic girl of fifteen to the old maid of any age. For the married women here do not work in the mines, but stay in the "corons" to prepare their husbands' meals punctually against the time of their return. Little gardens are attached to the tenements, in which the shrewder miners grow the vegetables for their daily use. For it is a very prosperous family which can afford meat more than twice a week.

Happily for them, the national gift of housewifely economy enables them to have healthy meals out of an income on which wonders must be worked if they are to live. The earnings of a whole family are pooled. A boy of twelve will earn, say, about a franc and a half a day, (30c.), a girl of sixteen two francs, (40c.), and the adult male members of the family each from three to four francs a day, (60 to 80c.). By hard work and intelligence a pitman may reach the rank of an overseer, when he earns for the first time a reasonable competence according to English standards.

See a gang leave the "coron" in the early morning. The men with their long, muscular arms crossed over their chests, roll along with a peculiar gait, something between a slouch and the sailor's roll, the exclusive possession of these people of the pit. Their shoulders are raised; their heads bent forward. They wear canvas jackets and trousers, under which are coarse wollen stockings, and their feet are encased in wooden clogs which sound heavy on the earth as they stride along.

The women are dressed just like the men, only they tie up their hair into chignons covered with handkerchiefs of some stout coloured material. If those handkerchiefs were removed it would be seen that their hair,

Maritime Mining Record

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R. DRUMMOND, PUBLISHER.

STELLARTON, N. S.

MAY 9th, 1906

THE CAPE BRETON COAL MERGER.

The following from the Glace Bay Gazette is remarkable for the information it does not convey regarding what was talked about as the big coal merger. The Gazette takes credit for having said little as to the contemplated big merger, and it evidently desires to be in a position to say the same in reference to the other rumored mergers, for all we are told is that the prospects for the North Atlantic Coal Co. are promising. We are thankful for small mercies.

We are heartily at one with the Gazette in its opinion that the government will be unwise to grant a subsidy to the Broughton people for a railway which will only serve that colliery. If another railway is to be built from Sydney to Louisburg then it must be built to serve all the coal seams lying between these points. That is it must not only tap Broughton, but the Blockhouse and Gowrie, the Cowans' areas, the areas at the head of Lingan Bay and so on. The new railway should have as feeders all the known seams outside of those held by the Dominion Coal Co. This is a bigger proposition than at first appears. The main line may be a comparatively small part of the undertaking. If the road is not double tracked there will require to be very many long sidings, and if the several companies holding areas actually develop them on the scale contemplated, it will be nigh impossible for an ordinary company to supply the necessary amount of rolling stock. It may be that each concern will have to own the cars etc. that carry its coal to a shipping point. These however are details to be worked out in the future. The new railway scheme must if it is to adequately serve all interests be a comprehensive one, and therefore we incline to the opinion that the government will grant no subsidy to a company for a railway to serve one coal district only:—

"The whole scheme, which, by the way, did not include the Broughton property, was a proposal of Sir Montague Allan to amalgamate the Acadia Company's mines, the Westville mines, the Gowrie & Blockhouse and North Atlantic collieries at Morien, and several other mining areas in the middle and northern parts of this coal field. Sir Montague asked for an option on the Morien properties, and got it. This option expired, and 'the Allans' solicited a renewal. But the Morien people were unable to renew the option, and the 'Allan Merger' is now minus the Morien properties.

Meanwhile, we understand that the North At-

lantic collieries is satisfied with the situation, and there is a fair prospect that their plans will shortly mature.

The operation of the North Atlantic collieries at Morien is obviously one of the contingencies of the future; and the connection of the coal, controlled and likely to be controlled by the company with Sydney and Louisburg, as well as with loading piers at Morien, is among the probabilities of the future. As a matter of fact, the North American collieries has apparently contemplated a line of railway to Louisburg from the outset, for, if we are not mistaken, it attained the power to build this line, at its incorporation.

This will doubtless mean that an application may be made to the local government for a subsidy for the North Atlantic Company at a later date. This should be remembered by the local government at this time, when an application for a subsidy for the proposed Broughton line is before them. The local government will not, we hope, invest provincial funds in a railway from Broughton to the exclusion of the eastern part of the Morien coal-field, which will need the railway to facilitate their development, and it goes without saying that the local government can hardly be expected to subsidize all these enterprises. We therefore think that if another railway is to be subsidized from the coal field to Sydney and Louisburg, it should be built under the direction of the local government, along a route as convenient as possible for the undeveloped coal properties, outside of the Dominion Coal Company.

The local government should take care that this road is kept as a route by which coal can reach Sydney and Louisburg at cost, and thus prevent anything that would expose the operators of private collieries, outside the Dominion Coal Co., to the burdensome rates and traffic arrangements of a rival company. The local government will doubtless use due discretion in the matter of Broughton subsidy and, will, we feel sure, do all in its power to encourage the development of Broughton in the interest of the province, but we hope it will remember that there are other important local coal districts with as good claims upon the government of Nova Scotia as the Broughton mine; and that this should be borne in mind in considering the present application.

It is unfortunate that Broughton people did not give more notice of their intention to apply for a subsidy, and thus enable the local government to fully investigate the claims and probable necessities of the other undeveloped coal districts before it passed judgement upon their application. It is not, however, too late to do so, and we hope that if the local government is not prepared to subsidize railways for the development of all the properties south of Sydney harbor, outside of the Dominion Coal Co., any new railway built with public money will be built, not for the exclusive commerce of Broughton, but for the convenience of all the undeveloped coal properties outside of the Dominion Coal Co., and kept under the control of the local government as a public highway along which coal can be carried to tide water at cost.

- Rubs by Rambler.

I have been asked once or twice "Who is this Stephen that is writing about iron at Arisaig in rather an impertinent manner?" and I have been forced to acknowledge I did not know the man personally though I have heard of him as one who had invested a few dollars in areas down that way and was looking for millions in return. This Mr. Stephen, whoever he is, evidently does not know the Record's position on the iron ore question any better than he knows about the iron ore at Arisaig. No doubt he is an easy going credulous fellow who takes big yarns in as gospel. The Record has never said there is no iron in great quantities in Nova Scotia, Arisaig included. What it has said is that the assertion has to be demonstrated, backed up by proofs. If at Arisaig there are mountains of ore of commercial value, then in Nova Scotia there is a market for thousands upon thousands of tons annually. If the holders of the areas, this Stephen among the number, really have faith in their property, why do they not take some steps to develop it. Either of the Steel Companies will give them 25c. a ton more than their Newfoundland ore costs and besides give them all the bounty payable on pig made from native ore. Can anything be fairer than this. And yet in spite of this offer these people with millions upon millions of ore of commercial value, simply lay back and whine pitifully because Newfoundland ore is used by the Steel Companies instead of native ore. The fact is that the holders of alleged iron ore areas, with ore of commercial value, are speculators at best. Some might say blackmailers at their worst. The Stephen crowd may say they are doing something towards the development of their property. They applied at last session of the local legislature for authority to build a road from Arisaig to Country Harbor. The capital in the bill was say \$100,000 with power to increase to \$2,000,000. The fee paid on the bill was say \$200,00 for the smaller capital, but as the rule of the House is that the fee must be paid on the larger sum named in the bill, \$300 or so more was demanded. The incorporators were content to have the capital placed at \$100,000, as they were afraid, presumably, to risk the \$300,00 extra required.

Is this in any way indicative of intense faith in their alleged belief that there are millions upon millions tons of ore of commercial value down Arisaig way. What sort of railway can be built on a capital of \$100,000 dollars, a railway too that will be all of forty miles long. And what is more I have heard that the half of the fee incorporated in the railway company came out of the pocket of the introducer of the bill. In other words the men holding the iron areas containing millions upon millions of tons thought they did their whole duty in demonstrating their faith in the proposition when they scraped up a miserable twenty five dollars a piece. In the Chronicle of 30 ult., Stephen waves his cap and shouts, "Here is proof of the value of the ore at Arisaig: Hugh Fletcher, of the Geological survey was there and

took away eighteen samples." I can imagine how broad a smile will cover Hugh's face when he reads of the fact of his carrying away 18 samples being adduced as an all sufficient endorsement of the immense value of the property, and of the immense quantity of ore it contains. If Mr. Fletcher will come to Whycoomagh I promise to weigh him down not with 18 but eighty samples of better ore than the general run of Arisaig. But ~~can~~ bone? The fact that he got eighty samples, would not convince me nor ought it to convince any other that there are millions upon millions of tons of ore at Whycoomagh. I hope that there is ore there in big quantities, but even though Mr. Fletcher has seen samples, I am not convinced there is. Stephen casts reproach on an extract from what Mr. Weatherbe said re Arisaig. Mr. Weatherbe may or may not be an ore expert, that is neither here nor there, the fact remains that what he says has the endorsement of the Mines Department as it appears in the official Mines Report.

Mr. Milner, of the Free Coal League has not been so active of late. I incline to the opinion that his ammunition is becoming exhausted. Indeed I may go further and say he must be in straits. In his reply to Mr. Moffatts interview with a Herald reporter he makes an assertion that damages his case very badly. He makes the statement boldly that in 1878 the firm of Cunnards retailed coal at \$1.83 a ton. This statement is wholly incorrect. Mr. Milner since he wrote the statement was informed of his inaccuracy, and yet he had not the courtesy to acknowledge he had been carried away by overzeal. The head of the present firm of S. Cunard & Co. told Mr. Milner as he told the writer that the firm Mr. Milner quotes as having advertised coal in 1878 at \$1.83 retail, never retailed a pound of coal. The firm was agents for the G. M. A. and the price was likely per cargo, and not at Halifax but at Sydney Mines. Further Mr. Milner's case is not the seventies miserable years for all concerning the coal trade. Were not the mine owners to petition the government for aid. The low prices then Mr. Milner claims were the result of competition. In a remote sense only. The true reason was that the trade was stagnant, the supply very far exceeded the demand. The pits worked by fits and starts, and no coal was shipped in winter. There should be no comparison, there can be no fair comparison with conditions existing then and existing now. Surely, surely Mr. Milner would not like any reversion to the old order of things. Coal indeed was cheap, but not only the coal trade but the general trade of the country was in a deplorable condition. Infinitely better to have coal at the price it is now, trade brisk, miners fully employed, labor in demand, wages good, than revert to the conditions in the seventies, when gaunt poverty stalked around the coal mines, when the whole province was at a standstill. Mr. Milner and those who think with him, allege that the present high price of coal hinders expansion of trade, but he and they have refrained from giving explanation of the reason

for the present tremendous expansion of manufacturing in Montreal, where coal costs the manufacturers more than it does the manufacturers of the Maritime Provinces.

A C. B. contemporary thinks Mr. Moffatt is in error in saying the exportation of coal to Sweden was not a paying venture. The leader writer of the Gazette thinks the trade to Sweden was abandoned owing to the friction between the Steel and Coal Cos. Now, my opinion is that Mr. Moffatt was nearer the heart of the matter than is the Gazette. Only incidentally did the Steel Co.'s play any part in the exploitation of coal shipments to Sweden. Had the Steel Co.'s not been willing to take Swedish ore it is doubtful if coal could have been profitably sent to Sweden. The coal was not latterly sent on spec. It had a purchaser before being loaded. The reason that no coal was sent last year was due to the fact that no arrangement could be made with the Johnsons which would permit of a profit to the Coal Coy. I think that is the long and short of it.

At the late session of the local legislature the miners of the province got all they asked for, and in my opinion I am sorry to say they got more than should have been given. In the first place they asked that privileges they held should be curtailed, and they were curtailed accordingly. Had it rested with me I would have refused one request point blank, and a second request I would have granted with modifications. The first request was that the miners should be restricted in a selection of a checkweighman to a miner of three years experience. Had it been shown that such a request was in the interests of the miners, that it was necessary to fair play, in any way to better security, or that the late system in giving the miners a free hand led to abuse and injustice, then the request might have been reasonable. But it was not so shown. As the law was those who paid the checkweighman had a free choice. They had the liberty of selecting the fittest man to be a miner or a bankhead man. Had the law confined them in their selection then I could have understood the request, but it did not. How they came tacitly to acknowledge they did not or could not make the most fitting selection passes all understanding. It looks to me as if the request was made at the instance of some chagrined minority. A majority made a selection which was not pleasing to a minority, and hence came the request, and the enactment of what to every reasoning man must appear retrograde legislation. In the second place the request came from all the lodges, except one, whose membership consisted of employees of the Dominion Coal Co., that the law in reference to colliery doctors should be changed so that the employers would not be bound to recognize the specification or petition for a colliery doctor unless forty per cent of the employees attached their names. Now while I admit that the law as it stood, might be capable of improvement the change is too violent. If in the one case the number required on the specification was too small, the number now required is too large, creating a sort of monopoly. Let me take a colliery employing 1200, 1400, and, or, 1600 men. It may

have been an injury to the medical men in either case that the names of 125 would subject them to loss, for no sufficient reason except that the 125 employees willed it so. On the other hand it is too bad that an incompetent, careless or dissipated doctor can retain his post, unless, in the case of a colliery employing 1400 men, and there are more than one such in the province, no fewer than 500 names be attached to the requisition, or, in the case of a colliery with 1600 employees, and I think there is one such, no fewer than 624 of the workmen sign the requisition. I hear that at one colliery on the mainland, where there are two colliery doctors, a majority of the men signed both requisitions, but that is a rather peculiar way of doing business, seeing each man pays only to one doctor. If such a system prevailed generally there would be utter confusion, and any law as to number of names on a requisition would be a huge farce. Had the law been changed so that, where 500 men were employed no specification needed to be recognized unless 50% of the men adhibited their names; from 500 to 600 45 per cent, from 600 to 700 40 per cent, 700 to 900 35 per cent, 900 to 1200 30 per cent, and over 1200 25 per cent, then the move might have been in the interest of both doctors and men, but as it has been changed I'm afraid there will be a howl some day when the men find that they cannot procure a man to their liking unless by way of a miracle. I have no feeling in this matter, the colliery doctors in C. B. are all, so far as I know, above reproach, and I cannot imagine how some men would wish for a change. My opinion in short measure is that a jump has been made from one extreme to the other.

The rules of the Glace Bay Co-operative store would make a goodly sized volume. They cover over thirteen columns in the Glace Bay Gazette. In my opinion they are needlessly cumbersome for a society which is just making a start and whose capital will not exceed, not at least for some time, thirty thousand dollars. The ordinary member will have little time or inclination to study the several rules. I see, in the objects and powers of the society—that the words "combining the profits of trade with the securities and facilities of a bank—are retained though the words were struck out of the bill by a repealing act, after the bill had passed both houses. To the promoters the society may appear to offer the security of a bank, but certainly it cannot to them or to the ordinary man afford the facilities of a bank. However that may be neither here nor there. There is one rule in reference to shares that I do not approve of at all. It may be right that a member must be holder of three shares, but there is not much sense in confining any members holdings to 100 shares. That would mean only \$500. The society has for its objects the encouragement of thrift, economy, prudence in spending, or in short its aims are to encourage its members to save. Let it be granted that the society has started, and has induced many men to become thrifty. They have accumulated in say three years sufficient to buy 100 shares. The fourth year they have a hundred more dollars to invest. They would like to invest it in the society their alma mater in a sense, for in it they were

taught lessons in saving, but the rules of the society preclude their so doing. The consequence is that they are forced to look for some other institution in which they may invest, and that institution may not be governed by the principles at the root of co-operative societies. If co-operation cannot provide the opportunity to a workman for investing all his savings, then, in my opinion failure must be stamped upon the movement. Why are co-operative societies necessary? Because, we are told, middlemen are greedy, and rob their customers. That may be one reason but the chief reason is that they afford workmen an opportunity for small investments which they can make fortnightly or monthly. Why then should the society which has created the taste throw the member off after he has saved \$500? Is it because that they do not want him to continue saving lest he become like unto other bloated capitalists. If the aim of the Co-operation societies is to help a man they should help him right along and not stop helping him after he has acquired the comparatively small sum of \$500.00 Co-operative societies should supply facilities for men disposing of the loose change they have after pay days. If they do not then they miss a grand opportunity of furthering the object they profess to have in view.

Had my attention not been called to it I would have missed the following jocular effusion which appeared in a Halifax Herald of late date. My first comment is that the critic of the Records correspondent is not himself invulnerable. He accuses the correspondent of indulging in whirlwind talk, while he himself flies into the most apparent kind of heroics. If the Records correspondent hinted that some mine workers are sinners, the Herald writer would insinuate that all of them are saints. Here is what the Herald says on the pension point:—

"The statement that old age pensions are a curse in disguise is simply reckless whirlwind talk and the assertion that the thought of a possible pension may be a deterrent to industry and thrift is nothing more nor less than an insinuation that the coal miners of Nova Scotia are naturally so unscrupulous and indolent that they would take advantage of a pension scheme to idle away a portion of their lives. The writer refuses to believe anything of the kind. From his knowledge of the mine workers of Nova Scotia he believes them far away and above any such tactics. He believes them to be thoroughly honest, industrious and patriotic. Men who appreciate any concessions made them; who are too honorable to take a mean advantage of them. They would, under a pension system strive just as hard by honest labor to lay up something against old age as they are striving now.

The Record's correspondent does not understand the miners' position regarding a pension system. It is not their wishes in the event of such a system being inaugurated that pensions be provided indiscriminately, but only for those who may go down to old age or become permanently injured owing to circumstances over which they have no control."

The Herald writer is not justified in putting the interpretation he does on the Record corres-

pondents' remarks. Because there is a law against stealing, fraud and so forth is not a sufficient reason for assuming that all men are inclined to pilfer, and to say that a pension may be a possible deterrent to thrift and industry is not equal to saying that it will make all men thriftless and lazy. I myself believe, and can give reasons for my belief that if very many workmen had the prospect held up to them of getting four or five dollars a week when old age incapacitated them from working, or when they had reached that age, they would be very careless as to whether they saved in earlier years a single cent as an emergency fund. The saying is there are tricks in all trades and if the Herald writer believes that colliery workers never at any time indulge in a little subterfuge and even at times shrink 'liability' then he is open to the mild reproach, perchance in odd cases commendation, of being unsophisticated. The Herald is, in my opinion, away off when it says that the miners do not wish any pension scheme to apply indiscriminately. Indeed. Does that mean that only the actually needy are to participate in the scheme? If so what will be the difference between aid from a pension, and aid from a poor fund, except in the amount of allowance. Is a pension scheme just another form of poor aid, only instead of being parochial it is national or provincial. Let the miners work out a pension scheme of their own to which they will be primarily contributors. Only by such a plan may relief in old age be free from the charge of pauperism.

If little progress has been made in determining in some measure, whether Nova Scotia has the large bodies of iron ore with which she has been and is credited, the fault in great part may be laid at the doors of the parties holding the areas supposed to contain ore. These we fear have not as a first wish the development of the ore industry. Their pockets have their first consideration. There is an important coal area, or rather I should say believed to be important coal area, in one of the C.B. counties, lying undeveloped, towards the working of which no progress has been made simply because the holders of the properties have demanded fanciful prices for them. They have been held for over thirty years at a price twenty times greater than that obtained for equally as important areas in adjacent districts. And so it may be, nay, so it is, with certain iron ore areas. I have it as a fact that the holders of certain areas in a county adjacent to Pictou County are asking the very modest sum of \$700,000 for a property, the real value of which is as yet undetermined. In short \$700,000 is asked for a property which is nothing better than perhaps a middling fair prospect. It is said of the holder of an iron ore area in Antigonish County who never spent fifty dollars in doing reasonable work on it that he bonded it to another speculator for \$5,000, a condition being that he was to receive \$25,000 when or if the property was sold. The party to whom it was bonded demands the sum of \$100,000. And do not forget that this is asked for a mere prospect, for a property which has not been demonstrated to be worth for practical purposes a hundred dollars. And these veritable leeches, these are the ones who howl a-

against the Record and others who think it is time enough to boast about an ore property only after its value has been in a reasonable way determined. And these are the men too who belie their professions of belief in the vastness of the ore deposits by refusing to expend a dollar on them over the sum necessary to keep good their title to them. If I had an ore property on which I was assured there were millions of tons of iron ore of say 50% and low in sulphur and phosphorus I would ask for no additional bounty. I would either form a company to work and ship the ore, or I would sell to one of the Steel Coy's, who would, I am positive buy the property at a fair figure. Three years or so ago a party nearly bit my head off because I shook it at his assertion that he had traced an ore vein across the county for ever so many miles. I told him that if he could trace it for 500 yards I would get him a purchaser for the property. I believe he sank a hole or two and then came to the conclusion that appearances were at times deceitful. Let the holders of iron ore areas show their faith by doing a little systematic work, even if that involves the outlay of a dollar or two. That I fear however is the last thought of the shouters.

The following is the first section of a bill which passed at the late session of the legislature:—

G. H. Duggan, Second Vice-President of the Dominion Coal Coy., Limited; F. W. Warren, Assistant to the 2nd. Vice-President; J. R. Blackett, Auditor; J. R. McIsaac, Traffic Manager; J. H. Nisbet, Despatcher; A. W. McLean, Yardmaster; C. J. McDonald, Conductor; Fred English, Wood Machinist; George Conway, Machinist; Godfrey Gibson, Machinist; and such other persons as are or shall become members of the Society hereby established, hereinafter called the "Society", shall be a body corporate, under the name of the Dominion Coal Employees, Insurance and Provident Society, with its chief office at the General Offices of the Dominion Coal Co., Limited, Glace Bay, Cape Breton, Nova Scotia, for the purpose of establishing and maintaining a society for the benefit and relief of such employees of the Dominion Coal Company, Limited, as may from time to time become members, in the case of accident, illness or old age, and for the relief of their families in case of death of such members.

The Sullivan Machinery Coy's, temporary San Francisco address is 1010 Washington St., Oakland, Calif., where they expect to carry an increased stock of rock drills and their parts, and air compressors. They are in shape to give prompt attention to customers business through Mr. H. T. Waish, Pacific Coast Manager.

The name Atlantic Collieries Co. has been changed to Breton Collieries Co. It may when operations begin, undergo a further change, as a clause in the bill gives authority to change the name with consent of the Governor in Council.

Coal Shipments APRIL, 1906.

DOMINION COAL COMPANY, LTD.

—Output and Shipments for April 1906.—

	—Output—	—Shipments—
Dominion No. 1	47 957	
Dominion No. 2	48 697	
Dominion No. 3	30 802	
Dominion No. 4	43 995	
Dominion No. 5	55 472	203 349
Dominion No. 6	6 499	
Dominion No. 7	14 487	
Dominion No. 8	15 872	
Dominion No. 9	32 636	
	296 417	203 349
Shipments April 1905		139 267
Increase 1906		64 082
Shipments 4 mos. 1906		738 570
" 4 mos. 1905		549 805
Increase 4 mos. 1906		188 765

NOVA SCOTIA STEEL & COAL CO.

—SYDNEY MINES.—

Shipments April 1906	32 852
" " 1905	22 110
Increase " 1906	10 742
Shipments 4 mos 1906	123 312
" 4 mos 1905	77 813
Increase 4 mos 1906	45 499

ACADIA COAL CO.

Shipments April 1906	18 174
" " 1905	13 578
Increase " 1906	4 596
Shipments 4 mos 1906	75 987
" " 1905	65 088
Increase " 1906	10 899

CUMBERLAND RY. & COAL CO.

Shipments April 1906	30 980
" " 1905	37 891
Decrease " 1906	6 911
Shipments 4 mos 1906	156 303
" " 1905	118 238
Increase " 1906	38 065

INTERCOLONIAL COAL CO.

Shipments April 1906	23 123
" " 1905	14 199
Increase " 1906	8 924
Shipments 4 mos 1906	87 430
" 4 mos 1905	52 037
Increase 4 mos 1906	35 393

AROUND THE COLLIERIES.

Shipments have been fairly active the past ten days from Port Hastings. The steamer Hero loaded a big cargo for Montreal.

A big cargo of rails was landed lately at Louisburg from Philadelphia. Many will ask is not this a case of bringing coals to Newcastle. Possibly the rails are of a kind not made at Sydney.

The Inverness Ry. & Coal Co. have purchased a small steamer of light draught for the coastal trade. This is an innovation and should prove a success unless the vessel is a greedy coal consumer.

The Dominion Iron & Steel Co. have produced as high as 800 tons of steel rails in a day, beating the 800 record. If the Company would get a few big contracts no doubt large outputs would follow.

Work at the Allan Shafts is proceeding in a very satisfactory manner. The contractors for the steel bank have their plant on the ground and preparations are under way for the erection of the structure.

And now the fame of C. B. has travelled so far a field, that miners in Indiana are hearing of the fair wages and steady time to be made, and some from there have found work at the mines of the Dominion Coal Co.

A big change is being effected upon the surface at the Allan Shafts. There is much levelling and clearing away to make room for the necessary sidings. As soon as the bank head is up active and continuous shipments will be made.

In the Allan shafts levels and working places are being driven in the big seam, which is now running regular. A considerable quantity of coal is being hoisted daily. So good progress is being made in the development of the mine that it is intended on the next trip of the charter boat to load her with coal taken from the Ford pit seam.

Shipments at the Drummond Colliery have been hindered somewhat by the non arrival of the company's charter boat which was expected on the 30th. April and had not arrived a week later. It is understood the company is looking for a second boat. This means that shipments to the St. Lawrence this year are to greatly exceed those of last year.

The Dominion Coal Co. has a party out surveying a road from their main line to the Company's areas on the Lingan side. Does this mean another change in the company's plans. As the pits now working get deeper the cost of production increases. The opening of new pits on the Lingan basin might tend to bring down the cost, and it is possible the company may have this at present in mind.

There are two hundred men on the pay-roll at the Allan Shafts. The number is being daily added to.

As the months roll on the increase in coal shipments continues to show a gratifying increase. Big things are expected for the present month as water shipments have begun on a satisfactory scale.

Shipments from the various Cape Breton coal ports are now proceeding vigorously. There will be some record shipments this year or the Record is mistaken.

The little difficulty at Springhill was arranged on a compromise. The men asked 38 cents and yardage. They accepted 36 cts. straight. This rate should enable them to make a good wage.

The Reserve had its own little trouble a week ago, and the men quit work, but only for a day. The mens grievance was that preference in giving of places was shown to new comers. Mr. McVeay would scarcely admit that.

The number of the Record's advertising patrons is this issue augmented by two, the Keystone Driller Co. and the Herzler and Henninger coal cutting machine and drill works. Both concerns supply articles for which there must be an increasing demand in Nova Scotia. Our mining men should certainly give preference to firms which advertise in the Record.

The Westellar Terra Cotta Co. are still making improvements to their property at Sylvester. A large boiler is being put in position this week, the old boiler not having sufficient power for the new requirements. The Company turned out a kiln of bricks in March. Probably this is the first kiln ever turned out, burned, in the winter season in the maritime provinces. The company expects to have bricks ready for shipment in July and as they are of a superior quality a ready market should be secured for all the company can produce. Parties requiring brick for summer delivery should note this fact.

The following peculiar story is going the rounds of the papers. Is this a new form of sensational advertisement. One wonders if the gas which exploded is of a kind unknown in these parts, that will explode of itself without assistance from a blown out shot, a naked light, or the flash of a detonator:—

Information was received yesterday of an explosion of gas in the Huuter's Mountain coal seam, near Middle River, Victoria County, about three weeks ago. The explosion opened up a hole 20 by 10 feet and several feet deep. Quite a quantity of coal was thrown to the surface. The heat of the gas melted the snow for a distance of four miles, making a clear path fully eight feet in width for the entire stretch. The immediate explosion occurred about fifty feet away from a barn and dwelling located near the edge of the mountain forest, and from this point the melted snow track followed its almost straight course through the woodland. Many of the residents in the vicinity it is said, are becoming afraid to remain on their farms.

(Continued from Page 12)

like that of the men, is discoloured through the constant use of soft soap, with which they rid themselves of the eternal coal-dust which seems to permeate their very being. Indeed, the signs of their occupation are deeply writ upon them in the almost invariable anaemia of the young women, and in the remarkable pallor of the men's skin. When a miner, after his daily bath, stands for a moment, stripped to the waist basking in the sun in his little garden, his body is seen to be veined and mottled with the faint blue design, which in spite of his best efforts, the coal has worked under the surface of the skin.

As these men roll along to their work with their coffee cans hung by a string over their shoulders, they all seem slightly hump-backed, for the solid part of the day's meals is tucked away inside their jackets, squarely between their shoulders. This food consists of stout slabs of bread with slices of meat, if they are fortunate, or cream cheese and onions if the weekly carouse has left them with a little to spare for luxuries. By and by, they will eat their meal, squatting like Japanese, as with fingers grimy and redolent of coal they devour their food.

At their leisure their conversation is generally bounded by the horizon of the coal-field; they seldom talk of anything but their work. From generation to generation these miners have been accustomed to an iron discipline and to yield un murmuring obedience to those who rule their lives, so that the motives which have impelled them to the present strike must be strong indeed if they have been thus spurred to action.

There are hard lives indeed, and it is not unnatural that their pleasures reflect the debasing conditions under which they live. In the apology for a tavern at the pit's mouth the miners will meet and drink themselves dull with the thick beer of the country or the sickly spirituous liquors and 'sirops.' Look round! The walls are bare of pictures, the tables at which the miners sit are devoid of games—a lustreless life. No wonder that they seek relaxation at the cafes-chantants of the mining towns hard by.

Herded together in their barrack settlements domestic privacy becomes an impossibility, so that the primitive frankness of their habits creates a condition of things which moralists would find deplorable. Girls become mothers at an age which cannot but affect the health of their offspring, and, though marriage is almost invariably a sequel this is frequently postponed until the boy father and girl mother are of an age when as an adult worker, the man will be able to support his wife and children in the coron.

OLD AGE PENSION.

The Newfoundland Legislature decided in favor of old age pensions. The details of the scheme are to be worked out by a government commission, and next year the plan will be put in operation. The government estimates that the pensions in the aggregate will eat up about \$150,000 or \$200,000 a year, and will approximately equal the colony's present surplus over expenditures. Newfoundland's experiment will bear watching, and probably the manner in which it is seen to be working out a few years hence will have considerable influence in restraining or hastening movements of the same sort in the United States and Canada.

The subject commands much attention to-day alike in the United Kingdom and in the American republic. The principle is roundly denounced and stoutly defended. Canada has not wholly ignored it, though here as

yet has not been seriously discussed as a federal proposal, and probably will not be for a long time to come. At the bottom of the agitation in Great Britain and the United States is the growing class of persons who become public charges when they grow old. In its least objectionable form the pension scheme involves a contribution by the beneficiary, as in France where miners and seamen are compelled to set aside small sums annually as part provision for the rainy days of old age.

The Massachusetts bureau of statistics of labor has been examining the need, cost and effects of old age pensions, and Harper's Weekly notes that this is likely to reach to other states and to find many supporters in great centres of industry like New York, Chicago, Pittsburgh and Philadelphia. The passage of an old age pension law for all French workmen who have outlived their productive usefulness and the agitation of the subject in England keep up the interest in it.

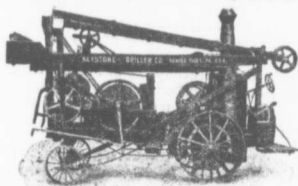
Objection is made to the pension plan as inviting improvidence and placing a great burden upon the common treasury. The Massachusetts investigators suggest that the pensions would reduce the great sums now expended in support of public charities, but Harper's holds that "the experience of New Zealand does not confirm this assumption. It appears that the public disbursements for charity in that colony are as great as they were before the pension law became operative. Perhaps in a term of years, by reducing the number of those who seek public support in the institutions, this theory may be found to be correct."

"The objection to old age pensions, that they tend to make a workman thriftless," according to other reviews "is met by the precaution taken in Germany, where in order to secure the benefits of the legislation, a workman is obliged to contribute annually a certain sum to which an equivalent amount is added by the employer, the state contributing the remaining third. This provision of the German act is reproduced in the French bill; indeed, in France, compulsory provision for old age has been for some years made in the case of seamen and miners. It is a very common individual experience that the beginning of a saving habit—the demonstration that accumulation is practicable, even on a small scale—often leads to happy results."

But there is nothing like experience near at hand, and Newfoundland is now getting ready to acquire knowledge by which other countries may profit.—St. John Telegraph.

NO CHARITY ALLOWED.

Commenting on the recent case where a Nelson employer was fined for giving work to a starving non-unionist at full rates, the Rangitikei Advocate says:—"It seems astounding that in this so-called free country a man whose charitable instincts impel him to give employment to a starving man at the full wages payable, should be fined £2 and costs because he has thereby broken a union award. The inference, of course, is that unionism prefers that men should starve rather than an award should be broken. The judge, of course, was quite right in declaring that charity is not an excuse for breach of law, but the decision should draw attention to the foolishness of the law. Such a provision as that, it assumes, is intolerant to humanity. Surely when a man is starving he can justly claim relief, and if he is an honest man he will prefer to work for his maintenance, especially if the one who comes to his relief offers him full wages.



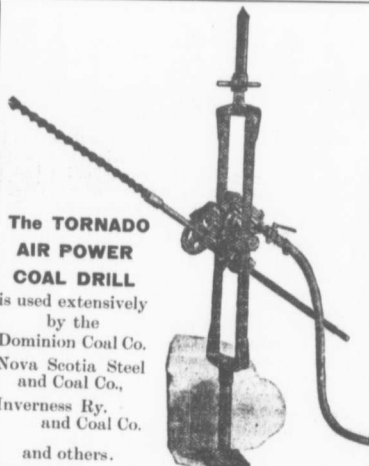
KEYSTONE Gold Finder

Drills a 6-inch hole through any formation to any depth and brings everything to the surface for an accurate test. Saves 19-20ths of the cost and delay of shaft and gets better results. Can be used on Flat Boat for exploring lake and river beds. Sectionalized for rough transportation.

Investigate the Keystone Spudding Device, Friction Hoist, Traction Feature, Cross Tubular Boiler, Cushion Walking Beam, Pipe Jar, Placer Bit, Vacuum Sand Pipe and other Patented Accessories. Send for Catalog No. 2 and Book on Mineral Testing with Well Drills. The Keystone is the

KEY TO SUCCESS IN DREDGING.

Keystone Driller Co. Beaver Falls, Pa.



The TORNADO AIR POWER COAL DRILL

is used extensively
by the
Dominion Coal Co.
Nova Scotia Steel
and Coal Co.,
Inverness Ry.
and Coal Co.
and others.

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

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

Miners of the

MABOU DIAMOND COAL.

Burns and Works like Bituminous;

Looks and Lasts Like Anthracite;

IT HAS NO EQUAL.

Mines, Piers
and General Offices

MABOU, CAPE BRETON.

MONTREAL STEEL WORKS Limited.

STEEL CASTINGS
FORGINGS,
SPRINGS,
FROGS,
CROSSINGS,

We make a Speciality of cast Steel WHEELS
and other
Steel Castings for

MINING PURPOSES.

INTERLOCKING SWITCH AND SIGNAL Plants.

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

For Mining Use



there are no other
Valves manufactured
to-day to Compare with

FAIRBANKS Renewal Disc VALVES.

Because FAIRBANKS VALVES are "full weight" and strongly built. They are heavy with nothing cheap or skimpy about them.

The Valve Seat is round, which does away with the possibility of any grit or dirt lodging thereon and destroying the Disc as well as the Seat itself.

The Renewable Disc

construction is a special feature. It enables you to

change the disc in a moment's time by a slot, cut in top of same, and requires no nuts, washers or springs to secure it. To change a disc in a Fairbanks Valve slip the old disk from end of a spindle, slip on a new one, and then don't worry.

Send for Valve Catalogue.

The Canadian Fairbanks Company, Limited.

Montreal.

Toronto.

Winnipeg,

Vancouver.

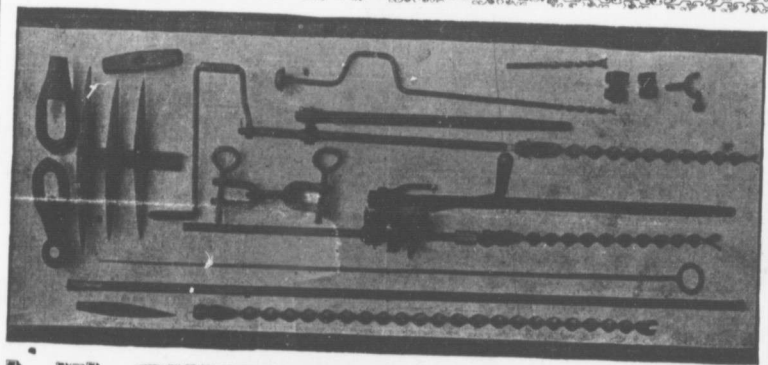
Shaft Sinking Records



Allan Shaft No. 1, Acadia Coal Company, was sunk 128 ft. and timbered up 100 feet in August, and sunk 132 ft. and timbered 137 ft. in November.

Our Air Compressor and Rock Drills were used. Works, Montreal, Branch, New Glasgow.

Allis - Chalmers - Bullock, L't'd.



J. W. GUMMING,

New Glasgow, N. S.

—DESIGNER AND MANUFACTURER OF—

Miners High Grade Tools.

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

Boring Machine Parts always on hand.

Any Kind of Pick to Order.

ESTIMATES PROMPTLY FURNISHED.



Synopsis of Regulations for disposal of Minerals on Dominion Lands in Manitoba, the Northwest Territories and the Yukon Territory.

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—Persons of eighteen years and over and joint stock companies holding free miner's certificates may obtain entry for a mining location. A free miner's certificate is granted for one or more years, not exceeding five, upon payment in advance of \$7.50 per annum for an individual, and from \$36 to \$100 per annum for a company, according to capital.

A free miner, having discovered mineral in a place, may locate a claim 1500 x 1500 feet by marking out the same by two legal posts, bearing location notices, one at each end on the line of the lode or vein

The claim shall be recorded within fifteen days if located within ten miles of a mining recorder's office, one additional day allowed for every additional ten miles or fraction. 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 an acre.

Permission may be granted by the Minister of the Interior, to locate claims containing iron and mica, also copper in the Yukon Territory, of an area not exceeding 160 acres.

The patent for a mining location shall provide for the payment of Royalty of 2 1/2 per cent. of the sales of the products of the location

Placer Mining—Manitoba and the N. W. T., excepting the Yukon Territory.—Placer mining claims generally are 100 feet square; entry fee, \$5, renewable yearly. On the North Saskatchewan River claims are either bar or bench, the former being 100 feet long and extending between high and low water mark. The latter includes bar diggings, but extends back to the base of the hill or bank, but not exceeding 1000 feet. Where steam power is used, claims 200 feet wide may be obtained.

Dredging in the rivers of Manitoba and the N. W. T., excepting the Yukon Territory.—A free miner may obtain only two of five leases of five miles each for a term of twenty years, renewable in the discretion of the Minister of the Interior

The lessee shall have a dredge in operation within one season from the date of the lease for each five miles, but where a person or company has obtained more than one lease one dredge for each fifteen miles or fraction is sufficient. Rental, \$10 per annum for each mile of river leased. Royalty at the rate of two and a half per cent collected on the output after it exceeds \$10,000.

Dredging in the Yukon Territory—Six leases of five miles each may be granted to a free miner for a term of twenty years, also renewable. The lessee's right is confined to the submerged bed or bars in the river below low water mark, that boundary to be fixed by its position on the 1st day of August in the year of the date of the lease.

The lessee shall have one dredge in operation within two years from the date of the lease, and one dredge for each five miles within six years from date. Rental \$100 per mile for first year and \$10 per mile for each subsequent year. Royalty same as placer mining.

Placer Mining in the Yukon—Creek, gulch, river and hill claims should not exceed 250 feet in length, measured on the base line or general direction of the creek or gulch, the width being from 1000 to 2000 feet. All other placer claims shall be 250 square feet.

Claims are marked by two legal posts, one at each end, bearing notices. Entries must be obtained within ten days, if the claim is within ten miles of mining Recorder's office. One extra day allowed for each additional ten miles or fraction. The person or company staking a claim must hold a free miner's certificate.

The discoverer of a new mine is entitled to a claim of 1000 feet in length, and if the party consist of two, 1,500 together, on the output of which no royalty shall be charged, the rest of the party ordinary claims only. Entry fee \$10. Royalty at the rate of two and one half per cent on the value of the gold shipped from the Yukon Territory to be paid to the Comptroller.

No free miner shall receive a grant of more than one mining claim on each separate river, creek or gulch, but the same miner may hold any number of claims by purchase, and free miners may work their claims in partnership by filing notice and paying fee of \$2. A claim may be abandoned and another obtained on the same creek, gulch or river, by giving notice and paying a fee.

Work must be done on a claim each year to the value of at least \$200. A certificate that work has been done must be obtained each year, if not the claim shall be deemed to be abandoned, and open to occupation and entry as a free miner.

The boundaries of a claim may be defined absolutely by having a survey made and publishing notices in the Yukon Office of Gazette.

Petroleum.—All unappropriated Dominion Lands in Manitoba, the North West Territories, and within the Yukon Territory, are open to prospecting for petroleum and the minister may reserve for an individual or company having machinery on the land to be prospected an area of 1920 acres for such period as he may decide, the length of which shall not exceed three times the leaseable. Should the prospector find oil in paying quantities and satisfactorily establish such discovery, an area not exceeding 640 acres, including the oil well will be sold to the prospector at the rate of \$1 an acre, and the remainder of the tract reserved, namely 1,280 acres, will be sold at the rate of \$3 an acre, subject to royalty at such rate as may be specified by Order in Council.

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

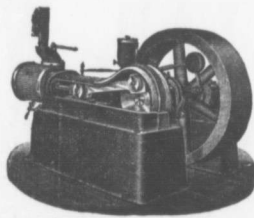
Miners Wanted
To Chew
BULL DOG TOBACCO,
Because it is the only Tobacco
which does not excite Thirst
for Water after using.
TRY IT!

The St. Lawrence Tobacco Co., Ltd.

—Montreal—

—W. B. Reynolds, Halifax Representative—

NOT ONE CENT FOR REPAIRS



An experienced Engineer has written us as follows:—

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

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

HAMILTON'S ZEPHYR

....PILOT,....

CALLED

“The Prince of Pilots.”

Beyond Comparison. The Finest Pilot Biscuit Made.

ASK YOUR GROCER FOR IT.

G. J. HAMILTON, & SONS.

Pictou, Halifax, St. John.

Contractors to H. M. Government.

ALLAN. WHYTE & CO.

Clyde Patent Wire Rope Works,
Rutherglen, Glasgow Scotland.

CABLEGRAM

Ropery, Rutherglen

SCOTLAND



A I
A B C
and Liberts
Codes Used

Section of worn Haulage Rope supplied by us to Messrs. Outtrim, Howitt and British Consolidated Coal Company, Outtrim, Victoria, Australia, showing condition when taken off and substituted by another Rope of our manufacture. Length 7,260 feet by 4 1/2 inch Cir. made of Special Improved Plough Steel Wire. Working on gradient of 1 in 3 to 1 in 6.

Manufacturers of All Descriptions of WIRE ROPES for COLLIERIES, MINES, CABLE TRAMWAYS
AERIAL ROPEWAYS, TRANSMISSION of POWER, SUSPENSION BRIDGES, ETC ETC.

Wire specially selected for our Requirements.

Also Makers of all Classes of Specially Flexible Wire Ropes, for Cranes, Winches
Capstans, Hoists, Etc.

Agents in Nova Scotia:—Wm. Stairs, Son and Morrow, Limited
Agents in New Brunswick, W. H. Thorne & Co. St. John.

Different sizes and quantities
kept in Stock.

CAPE BRETON COLLIERY.

NEW CAMPBELTON CAPE BRETON N. S.

SUPERIOR

STEAM AND DOMESTIC COAL

SAFE AND CONVENIENT SHIPPING PORT

The Nearest Coal Port to Newfoundland

Just Inside Entrance Great Bras d'Or.

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

- - J. T. Burchell Manager.

INVERNESS IMPERIAL COAL

INVERNESS RAILWAY and COAL COY.

Inverness, Cape Breton.

Miners and Shippers of INNERNESS (BROAD COVE)

Screened, Run-of-Mine Slack.

—First Class both for Domestic and Steam Purposes.—

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

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

INVERNESS RY. & COAL COY

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

EASTBOUND			STATIONS.		WESTBOUND	
Read Down					Read Up	
No. 52 a. m.	No. 54 p. m.				No. 56 p. m.	No. 58 a. m.
L 11 10	L 3 55	P. TUPPER JUNCTION	A 10 50	A 3 35		
N 11 16	S 4 09	PORT HAWKESBURY	S 10 57	S 3 27		
A 11 35	L 4 18	PORT HASTINGS	A 10 59	S 3 10		
	F 4 30	TROY	P 10 59			
	S 4 43	CREIGNISH	S 10 58			
	F 4 55		P 9 53			
	F 5 10		P 9 55			
	F 5 25	CATHERINE'S FOND	F 9 52			
	A 5 30	PORT HOOD	L 9 56			
	L 5 42	GLENCOR	A 9 56			
	F 5 58	MABOU	P 8 45			
	S 6 21	GLENDYVE	S 8 15			
	F 6 35	BLACK RIVER	P 8 55			
	F 6 53	STRATHLORE	P 7 50			
	S 7 07	INVERNESS	S 7 27			
	A 7 20		L 7 21			
	P. m.		A. m.			

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

THE PORT HOOD COAL COMPANY LIMITED

Miners of

SCREENED
STEAM
STOVE
SLACK

COAL,

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

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

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

THE PORT HOOD COAL COMPANY, LIMITED

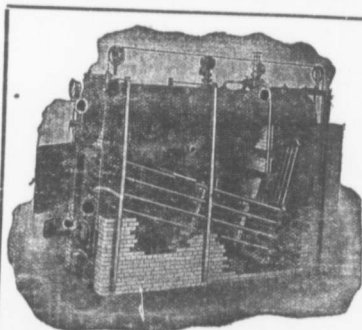
ADVERTISE IN THE MINING RECORD.

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

BRIDGES

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

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



BABCOCK AND WILCOX PATENT WATER TUBE
BOILER WITH SUPERHEATER.

BABCOCK & WILCOX LTD.

PATENT

SUPERHEATERS

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

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

Write for our Circular giving detailed description.

HEAD OFFICE FOR CANADA.

11 Place d'Armes, : MONTREAL

BRANCH:—114 KING ST. WEST, TORONTO.

We Have in Stock

and offer at lowest price

—the following—

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

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

AUSTEN BROTHERS,

Halifax, N. S.

George Patterson,

BARRISTER, SOLICITOR, ETC.

NEW GLASGOW, N. S.

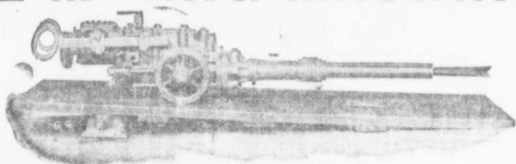
Successor to Sinclair and Patterson—

JERSEY - LILY - FLOUR.



*Best all round flour on the market.
Uniform in quality. Every barrel
can be depended upon. This flour can
only be had in Cape Breton at the stores
of the Dominion Coal Company.*

COAL MINING MACHINERY



"G" HARRISON IMPROVED COAL CUTTER.

HARRISON IMPROVED COAL CUTTERS.

AIR COMPRESSORS

—of all Descriptions—

MANUFACTURED BY

LITTLE GIANT STEAM OR AIR DRILLS

Canadian Rand Drill Coy Works, Sherbrooke Que.

Halifax Office, 116 Hollis St.

G. L. Burritt, Agent.

The Stirling Consolidated Boiler Company,

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

Manufacturers of

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

WORKS: Barberton, Ohio; Mansfield, Ohio.

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

RUBBER BELTING.

Unequalled for DURABILITY and POWER TRANSMITTING Qualities.

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

"REDSTONE SHEET PACKING"

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

The most durable and satisfactory Packing on the Market.

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

—MANUFACTURED BY—

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

Branches at Montreal, Winnipeg and Vancouver.

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Acadia Coal Company, Limited.

STELLARTON, NOVA SCOTIA.

Miners and Shippers of the

CELEBRATED

ACADIA COAL.

Unexcelled for Steam, Domestic and General Purposes.

DELIVERED BY RAIL OR WATER.

SHIPPING PORT: PICTOU LANDING.

Quotations Furnished Promptly on Application.

MARITIME COAL & RAILWAY CO., Limited.

Miners and Shippers of

CHIGNECTO HIGH GRADE COAL.

Steam AND Domestic

Unexcelled for General Use.

Shipments to all points reached by the
Intercolonial Railway.

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

JAMES BAIRD, Mine Manager.

DAVID MITCHELL, General Manager.

The BROWN MACHINE COY.,

New Glasgow, Nova Scotia.

Coal and Gold Mining Machinery a specialty

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

Complete equipments furnished for Coal or Gold mines.

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

Estimates Cheerfully given.

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JOHN L. BLAIKIE Esq.
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VICE PRES.

THE BOILER INSPECTION & INSURANCE CO.

OF CANADA



CONSULTING ENGINEERS
G. C. ROBB CHIEF ENGINEER HEAD OFFICE TORONTO

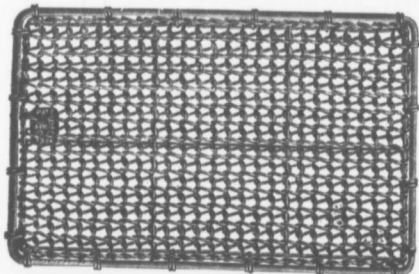
WHEN WERE YOUR
.. BOILERS ..
... LAST INSPECTED ...

WRITE TO

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

-OR TO-

A. BONNYAN, INSPECTOR
Amherst, N. S.



WIRE GUARDS

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Factory and Mill Windows.
School & Church Windows
Store & basement windows
and for all
Public Buildings.

THE B. GREENING WIRE COMPANY, LIMITED.
HAMILTON, ONT. MONTREAL, QUE

MADE IN CANADA.

**FRESH GROUND
FIRE CLAY.**

Equal in quality to Scotch Clay. Sold in bulk or in bags
Our prices are considerably lower than the imported
Article.

Write for prices and full particulars.

INTERCOLONIAL COAL MINING CO., Limited,

WESTVILLE, NOVA SCOTIA.

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

GOWRIE AND BLOCKHOUSE COLLIERIES, LIMITED.

OF NEWCASTLE ON TYNE.

MINE AND LOADING PIERS, PORT MORIEN, COW BAY.

CAPE BRETON, N. S.

Miners and Shippers of GOWRIE COAL.

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

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

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

The JOHN McDOUGALL Caledonian Iron Works Co., Ltd. Montreal Que.

BOILERS: All Sizes and all Pressures.

PUMPS

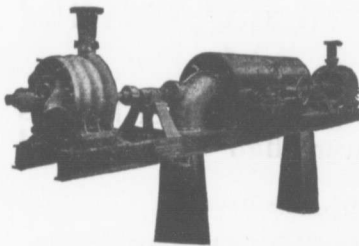
Worthington Pumps for
Water Works and Mines.

Water Wheels

Double Water Wheels for high heads.

Mill Machinery

Etc. Etc.



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

CUMBERLAND

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%	27.98%	28.41%
Fixed Carbon.....	75.29%	67.47%	64.69%
Ash.....	3.75%	3.19%	4.19%
	100.00	100.00	100.00
Sulphur.....	1.15%	.58%	.79%

BEST COAL FOR
LOCOMOTIVE USE.

Delivered By Rail or Water

BEST COAL FOR
GENERAL STEAM PURPOSES.

The year Round

BEST COAL FOR
DOMESTIC CONSUMPTION.

IN Lots To Suit Purchasers.

BEST GAS COAL

Mines
SPRINGHILL

Mined in the Province.

N. S.

Head Office

MONTREAL

Dominion Coal Company, Ltd.

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

—Yearly output 3,500,000 tons.—

ANALYSES.

ANALYSES OF GAS AND STEAM COAL MADE BY J. & H. S. PATTINSON, CHEMISTS, 1
 —NEWCASTLE, ENGLAND.—

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

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

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

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

:: BUNKER COAL ::

The Dominion Coal Co. has provided unsurpassed facilities for Bunkering Ocean going Steamers with Dispatch. Special attention given to Prompt 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 of the Company.

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

DOMINION COAL COMPANY, LIMITED,
 DOMINION COAL COMPANY, LIMITED,
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112 St. James St., Montreal, Que.
 171 Lower Water St., Halifax, N. S.
 Quebec, Que.

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G. H. DUGGAN,

2nd. Vice President