

136 McLaren St.

MARITIME MINING RECORD

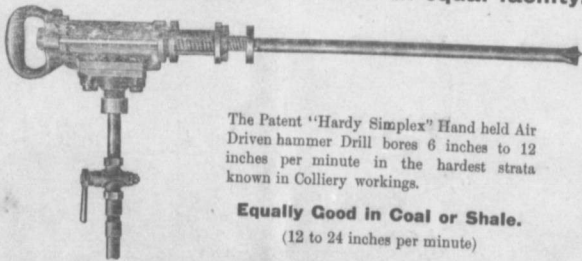
Dr. R. Bell
Coal

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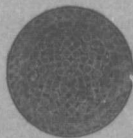
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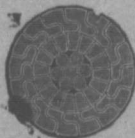
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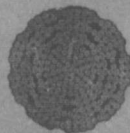
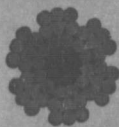
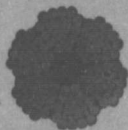
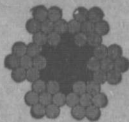
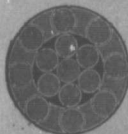
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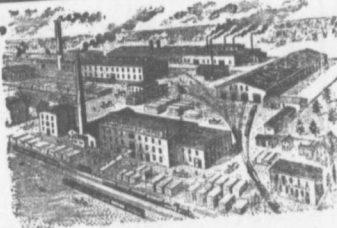
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30 Mixed from New Glasgow	10.15
62 Mixed from Pictou	10.55
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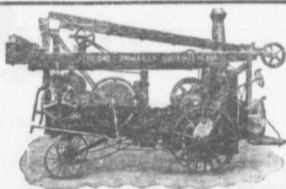


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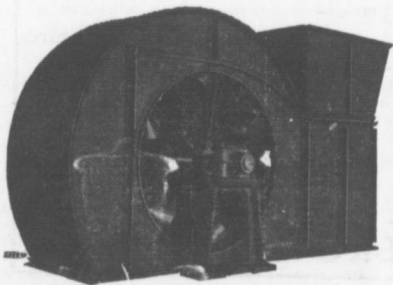
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MARITIME MINING RECORD

Vol. 10, No. 24. Stellarton, N. S., June 24th, 1908, New Series

COAL MINING IN PICTOU COUNTY.

BY H. E. COLL.

(In Engineering and Mining Journal.)

The Pictou county coalfield occupies a valley lying between two prominent lines of hills, running east and west, and is drained principally by the East river, which cuts the field at its most productive point. The tide runs half across the field, and to the east and west the land rises to about 250 ft. above sea level, at the farther ends of the field. The land is rolling and is made up of heavy glacial deposits, the drift in places attaining a thickness of 75 feet.

GEOLOGY.

In Part B of the 1902 Geological Report, Fletcher gives the following classification in descending order:

- Permian { Upper red sandstone and shale group with thin bands of limestone.
- { Middle gray sandstone and shale group with small coal seams.
- { New Glasgow conglomerate.
- Carboniferous { Coal measures.
- { Millstone grit.
- { Carboniferous limestone.
- { Carboniferous conglomerate.
- Devonian { Upper red slate and shale group.
- { Middle gray slate and shale group.

Immediately north of the supposed limits of the field is a heavy conformation known as the New Glasgow conglomerate. This rock does not interfere with an extension of the field underneath the newer measures, but it has long been recognized by geologists that the field on the north is cut off by an extensive fault, which marks the division between the conglomerate and the coal measures. Whether this faulting has completely destroyed these measures is still open to proof, and until the time when properly placed bore holes will be put down, it will remain undetermined. The total thickness of the productive measures amounts to about 12,000 ft. To the south they are succeeded by the older rocks, upon which they lie unconformably.

The most interesting feature of the Pictou district is the series of faults, which traverse the measures in two main directions. The larger series are those having a general direction north and south and running at right angles to the strike. On the sides of the basin these are in the nature of rolls or wrinkles, in which the coal in some cases has been squeezed completely out. The coal shows no disturbance approaching these faults until within a distance equal to the thickness of the seam; when the coal becomes broken, and where it comes against the roll is so polished as to reflect like a

mirror. No dislocation of the shales takes place, and apparently the rolls are due to lateral pressure, travelling in lines parallel to the strike. Travelling down toward the basin, these rolls become heavier until reaching the bottom, the rock breaks and the basin is crossed by a "down-thrown" fault. This is the only point where actual dislocation of the rock occurs. The other series of faults are in the form of pinches and run parallel with the strike. These constitute much more serious drawbacks to the mining of the coal than do the north and south rolls. They are only found along the high dips and are heaviest on the north side of the field.

The district has been a geological battle ground for almost 50 years, and has been the subject of numerous papers, and reports. Little has been added to the knowledge of the field and in several instances, relating to faults, actual development has proved that they are of little importance and do not attain any magnitude. Of these faults, the most interesting are, the McCulloch, given as over 2000 ft., the Puter Brook, the Mill Race and the Lawson. For years these faults dominated over any development of adjacent sections until the several companies were forced by actual need of coal, to push their sinkings further down, so that to-day all of these faults with the exception of the Mill Race, have been passed through by the mine workings and have lost their field importance.

The following is a condensed section showing the seams on the east side of the East river, in what is known as the Albion section:

Strata. Black shale and sandstone bands.....	50 ft.	1200 ft.
Ford seam.....		
Strata. Gray shale and sandstone.....		150 ft.
Cape seam.....	22 ft.	
Strata. Gray shale and sandstone.....		120 ft.
Third seam.....	6 ft.	
Strata. Gray shale and sandstone.....		125 ft.
Purvis seam.....	3 ft.	
Strata. Shales and sandstone...		140 ft.
Fleming seam.....	4 ft.	
Strata.....		5 ft.
McGregor seam.....	12 ft.	
Strata.....		210 ft.
Stellar seam.....	5 ft.	
Total.....	102 ft.	1950 ft.

In the Westville district the following section is taken commencing with the outcrop:

Acadia main seam.....	17 ft.	
Strata.....		200 ft.
Coal.....	12 ft.	

Strata.....		115 ft.
Coal.....	6 ft.	90 ft.
Strata.....		8 ft.
Coal.....	8 ft.	405 ft.
Total.....	43 ft.	405 ft.
The Vale district on the east has the following section on the crop.		
McKay seam.....	3 ft.	100 ft.
Strata.....	8 in.	500 ft.
Oil shale.....		3 ft. 6 in.
Vale seam.....	3 ft. 6 in.	700 ft.
Strata.....	8 ft.	37 ft.
McBean.....		2 ft.
Strata.....	2 ft.	1337 ft.
Total.....	17 ft. 2 in.	1337 ft.

There are other seams occupying local basins above the McKay bed. This Vale section is the largest of the three, if taken complete, but owing to the seams being smaller than the Albion section and the outcrop coal of poorer quality, little attention was paid to the development of this latter section until within the last three years. At this time it is realized that the Vale section will be the main producing one of the field in a few years' time.

HISTORICAL

Coal in Pictou county was first discovered in 1798 and the first mining was done in the MacGregor seam about 1801. Shortly after this, the Ford seam was discovered by John McKay, who shipped coal to the garrison and navy at Halifax during the war of 1812. Between 1812 and 1825 the production amounted to about 3500 tons a year. In the latter year, the British government leased all the reserved mines of Nova Scotia to the Duke of York for a period of 60 years. The Duke transferred the lease to a jeweller's firm in payment of his debts, and from them it was received by the General Mining Association who at once commenced operations to develop the Albion section. On Dec. 7, 1827, the first coal to be hoisted by steam power in the Province was taken from the "store pit," which was sunk 212 ft. to the Ford seam. In 1832 the first of a long series of fires and explosions occurred. In 1839 another fire got beyond control, and the workings were abandoned. Other pits were sunk successively to the dip, the deepest being about 450 ft., and the coal mined to the rise. Explosions and fires occurred in 1861, 1863 and 1867, and in February of the latter year the last of the "bye" pits was abandoned. In 1850 the Dalhousie shaft was sunk to the Ford seam, and worked extensively until 1872, when the whole mine was severely squeezed and was later abandoned.

The Ford seam was first developed in 1866 and worked until 1880, when an eruption of water from the old workings killed six men; this accident was followed a month later by an explosion killing 44 men, and setting fire to the mine. Some of the bodies are still in the dip workings. It was found necessary to admit water from the East river and the plant was abandoned for several years. In 1890 the water was pumped out and an effort made to develop the lower section of the seam, but owing to trouble from the old fires, it was once more abandoned. In the meantime other mines were being opened up.

The Drummond slope was put down in 1868, and in 1873 an explosion took place killing 59 men, and causing the temporary closing of the mine. In 1872 the McBean seam on the eastern edge of the field was

opened up and worked extensively until in 1885 an explosion took place killing 13 men. Two years after this disaster the mine was abandoned, being at present full of water. In 1886 the Vale seam was opened, but the crop coal being of such poor quality, development was not pushed for a number of years. At the present time the Vale mine enjoys the distinction of working the only seam of coal in the field which has not had an explosion or fire.

PRESENT CONDITIONS

At the present time the principal coal areas are held by the following coal companies:

Intercolonial Coal Company, 9 sq. miles, operating at the Drummond mine, Westville.

Nova Scotia Steel and Coal Company $\frac{1}{2}$ sq. mile, operating at the Marsh mine, Coalburn.

The Acadia Coal Company, 16 sq. miles, operating at the Acadia colliery, Westville; the Albion colliery, Stellarton; the Allan shafts, Stellarton; and the Vale colliery, Thorburn.

The shipments for county during 1907 are divided as follows:

Intercolonial Coal Co.....	274,388
Nova Scotia Steel & Coal Co.....	36,700
Acadia Coal Co., Ltd.....	321,912
	633,000

The Marsh mine coal is used at the steel mills in Trenton, the other two companies have shipping piers at Pictou harbor, which will accommodate boats up to 5000 tons capacity. Both companies are in a better position this year than ever before in their history, which speaks well for a field that has had 100 years of service and that coaled the first steam vessel that crossed the Atlantic from Canadian shores.

The six mines now being operated within a total distance of nine miles, have dips ranging from flat to 80 deg. and consequently each mine has two or more different methods of taking out the coal. Bord-and-pillar work by means of self-acting planes with rooms driven to the rise or off main levels, has been the standard for mining the coal in Pictou county. Longwall has been used successfully in the Drummond and Acadia mines for a number of years, and owing to the nature of roof and bottom much better results can be obtained in working all the seams by longwall. The weight of the surface in the deep workings seriously interferes with mining the coal by bord and pillar.

With the exception of the new Allan shafts all the operating mines are slopes, which average between 20 and 30 deg. from the horizontal; in length the Drummond slope exceeds 7000 ft. Millions of tons of coal have been lost by fires, explosions, creeps and crushes, and many lives have been sacrificed, all brought about by carelessness on the part of men and management, and a general lack of proper methods for mining the great thickness of the Ford Seam.

To-day coal is being mined 1500 ft. below sea level from seams noted for the amount of gas they give off and the large quantity of dust that is made. The fact that these operations are being carried on successfully is due to the excellent mine laws and special rules of the companies, and the rigid discipline that is observed underground by the mine management. Safety lamps, mostly of the 'Wolf Magnetic Lock Type,' are used exclusively. All powder must be approved by the Government and known as a 'safe powder.' Holes can only be fired by shot-firers who pass an examination and receive a certificate before being appointed to service.

No fast shots are permitted, and the number of holes

method of charging and shooting, and the timbering of working faces, are all rigidly controlled by the mine officials. Each face must be examined for gas before any shot can be fired. Heavy feeders are often struck which are strong enough to foul a whole air current. The writer has seen a feeder giving off sufficient gas to flame in a lamp, after mixing with a 25,000 cu. ft. split from the main air current. Since the workings are below sea level, the flow of gas in relation to the falling and rising of the barometer is extremely noticeable, and in fact the majority of the mines regulate the speed of the fan by the reading of the barometer.

SYDNEY MINES CONCILIATION BOARD.

As the Nova Scotia Steel and Coal Co's. statement to the Labor Department contains much information it should be given all the publicity possible. We have not space for the statement in full and therefore give the more important part—from our point of view:—

"The Nova Scotia Steel & Coal Co., Limited, submits the following statement, in compliance with Clause 19 of the above named Act.

1. The general average of rates paid by this Company for all the different classes of work in and about its various collieries is as great as that paid at other similar collieries in the Province of Nova Scotia.

2. There is nothing whatever in the coal trade at the present time to warrant the granting of any increase in the wages now paid to the miner or laborer.

3. The returns on the capital invested in the collieries of the company for the last few years have been (owing largely to the increased cost of labor and materials) entirely inadequate, and any increase in wages would still further reduce the profits and make it very questionable wisdom on the part of this company to continue the progressive policy which it is pursuing in further developing its coal properties.

4. Large numbers of the colliery employees of the company are at present earning larger wages and receiving steadier employment than are enjoyed by other workers throughout the Dominion, engaged in equally laborious and dangerous occupations, and the Directors of the company have for some time believed it to be necessary, in order to justify them in continuing mining operations, that some reduction should be made in the prices paid for some classes of work.

5. Mining operations have been carried on at Sydney Mines for the past seventy-five years, or thereabouts. One result of this is, that there are a large number of old men employed in and about the collieries, particularly the No. 1 which is our oldest colliery, and the average earnings per day for coal cutters is materially decreased owing to the fact that the old men are not able to produce as many tons as ordinary miners. This also applies to shiftmen, roadmen, waste-men and other classes of underground labour, and if these rates are increased it will be absolutely impossible to provide this older class of workmen with employment.

6. The rates per ton paid for mining in the different heights of coal at Nos 1 and 5 collieries are as high as at any other colliery in the Province, with similar conditions, and the same tonnage prices are paid for drawing of pillars as are paid for room work. The custom in other collieries is to pay lower prices for pillar work than for room work, and we believe ours

are the only collieries where the same rates are paid throughout.

Nearly fifty per cent. of the total output of No. 1 colliery is from pillars.

7. The present depressed state of the foreign coal trade has very seriously increased the competition this company has to meet in its largest market, the province of Quebec, and any increase in the cost of mining coal will seriously handicap the company in meeting this foreign competition.

8. This company occupies a unique position among the coal mining companies of this province, in that it is a large consumer of the output of its own mines. From January 1st. to April 30th. of the present year the company used 30 per cent. of its total output of coal in operating its iron and steel plants; and the iron and steel department of its business has always been seriously handicapped by the high cost of its coal as compared with the low price paid by its competitors in other iron and steel works, both in Nova Scotia and abroad.

9. As is well known, the iron and steel trade of Canada is now greatly depressed; the demands for finished products are few and small in volume. Excessive competition has reduced the price in some cases below actual cost of production, and any increase in the cost of fuel will render it impossible for the company to keep its iron and steel plants in operation.

10. The earnings of this company are dependent on the successful operation of all its undertakings, and the prices and demand for the finished products of the company have so fallen off that the company has been forced to suspend some of its operations, as other companies producing the same class of goods throughout Canada and the United States have also been forced to do, and further curtailment may become necessary.

Under the circumstances mentioned in this statement, this company, while anxious to avoid anything in the nature of a strike, or any difficulties of any kind with its employees, emphatically protests against any Conciliation Board, because it will be absolutely impossible for this company to grant any concessions which will, in its opinion, increase the cost of mining coal.

If in the face of this protest of the company, its employees insist upon pursuing this matter, the company will have no alternative but to refuse to accept any award the effect of which in its opinion increases the present cost of producing coal, and for this reason it respectfully declines to appoint, or to recommend any appointments to the Board of Conciliation.

At the same time the Directors wish to say that while they can not accept any award that may have the effect of increasing the present cost of mining coal, they are willing to consider the readjustment of the wages of the employees of the company, the price paid by their workmen for coal, and all other matters connected therewith, provided that such readjustment does not increase the cost of producing coal.

We desire to point out in connection with the demand which has been made by the lodges:—

1st. The average daily earnings for contract men or men paid by the ton at the different collieries after making deductions for explosives are as follows:—

	1908		Jan.	Feb.	Mch.	Apr.	Avr.
Miners No. 1	Col.		2.54	2.45	2.60	2.47	2.51
Miners No. 5	Col.		2.09	2.97	2.84	3.01	2.95
Drivers " 1	"		1.85	1.84	1.84	1.81	1.83
" " 5	"		1.71	1.76	1.74	1.76	1.74
Shotfirers " 3	"		4.02	4.20	4.51	4.52	4.31
Mach. Run. 3	"		4.57	4.63	4.10	4.70	4.50
Loaders No. 3	"		1.93	2.03	2.14	2.13	2.05

2nd. In addition to the above, householders engaged in work in and about the collieries are given our best coal for household purposes at \$1.00 per ton delivered at the coal yards. This price bears no relation to the cost of production, and is but one-third the regular market price. The quantity of coal sold to workmen at this price during the year 1907 was 11,806 tons, and represents a direct loss of \$20,000 to \$25,000 per year to the company.

To be appreciated this might be stated as follows:—

The daily output of our coal mines averages about 2,000 tons, so that our collieries are required to work six days of the year to get this coal and twelve days additional to make up the loss to the company selling the coal at this price.

3rd. Our collieries known as Numbers 1 and 5 are very expensive collieries to work. No. 1 is a very old mine, and the coal is now being worked a distance of about one mile from the shaft bottom and is raised 800 feet to the surface. It is, without doubt the most expensive colliery to operate in Cape Breton. To add to the cost would mean a decided advantage to our competitors and would further reduce our chances of holding our market.

4th. To add anything to the present selling price of coal would be most prejudicial to the interests of coal mining generally as the general public now believe they are paying too high a price for this commodity, and considerable agitation has been aroused and continues to be directed against the operators, whilst the fact really is that the profits made from the operation of coal mines are entirely inadequate to the capital invested, and in some instances the operations are resulting in actual loss to the operators.

5th. In the demand for fifteen per cent. increase to day laborers, the company is at a loss to know what the term 'day laborers' means. If it means all workmen paid by the day we do not understand why they mention mine mechanics, who are also paid by the day. If it does not mean all men paid by the day, what classes or divisions of labor is it intended to cover? There are about fifty sub-divisions or classes of workmen in connection with our coal mines, such as deputies, shotfirers, roadmen, pipemen, pumpmen, on-setters, landing tenders, drivers, enginemen, mechanics, blacksmiths, carpenters, masons, teamsters, screenmen, etc."

A MINER AND HIS PIPE.

At Walsall County Court Judge Smith gave his reserved decision in a case under the Workmen's Compensation Act, in which Alfred Darrall, miner, Hightown, Cannock, sought an award against the West Cannock Colliery Company, Hednesford. Applicant was a roadman employed by the company, and on January 30th. last obtained his safety lamp ready to descend the pit, but afterwards went to the back of a cabin to hide his pipe, which he was forbidden by the

regulations to take with him into the workings. He was stooping down to place his pipe in a hole in the ground when a loose strand of wire on a haulage rope caught his coat sleeve and drew his left arm into the haulage wheel, with the result that it was cut off at the elbow. His Honour said the point he had to decide was whether the accident arose out of, and in the course of, the applicant's employment. Mr. Joy, counsel for the respondents, requested him to answer this as a 'man in the street' and with the bare words of the section before him he should have given a reply in the negative, and said the man was injured whilst endeavoring to hide his pipe, for which purpose he was not employed. An arbitrator under this Act, however, he had to apply the section as interpreted and explained by high judicial authority and the cases to which his attention had been called appeared to establish that, although a workman, when injured, might not be actually engaged in the work he was employed to do, if he was doing something directly or indirectly furthering the course of the employment, or having relation to his employment for the benefit of his employer, then he came within the section, although his action might be foolish or even amount to negligence, as in this case. It was obligatory on the applicant to dispose of his pipe, and he, (the Judge) thought it was clear he so disposed of it in the course of his employment, and for the benefit of his employers. It was contended for the respondents that the applicant should have left his pipe at home, but a similar argument might be applied in the case of a person employed at a powder mill, and who met with an injury whilst removing his boots to put on slippers. It might then have been argued with equal force that the man should have gone to the works in his slippers. As regarded the second point raised, which was the amount per week at which the applicant was being remunerated, it was contended for the workman that holidays and days on which he was absent, either through sickness or because there was no work for him to do, should be regarded as working days, when the rate of payments would have averaged 28s. a week. He, however, did not accept this method of calculation and made an award of 12s. a week.—On the application of Mr. G. Hillward, who appeared for the applicant, costs were allowed on the highest scale, in view of the importance of the points raised. Mr. E. Evans, who appeared for the company, gave notice of appeal.

TIDAL POWERS.

We hardly appreciate the value of the silent tide as it runs more or less swiftly up and down our harbours and rivers. Yet there it is, always in action, a living power of latent strength, which has existed ever since the world began. It cannot be said to be out of date on that account, since we still have to reckon with it. The tide may be said to serve to float vessels, to carry away sewerage and other refuse, also to flood certain areas for sluicing purposes. But, along every sea-board the want of its application, as a motive force on wheel and turbine, displays a wiful waste of energy on the part of an industrial generation. Yet the possibilities of tidal power—if we could but bridle the 'sea-horse'—are immense.—S. and A. of Mining.

MARITIME MINING RECORD.

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- Rubs by Rambler.

Though Nova Scotia and New Zealand had compulsory arbitration acts on their statute books for nigh a score of years, it cannot be said that arbitration, voluntary or compulsory, was ever in high favor with trades unionists. I may qualify the reference to Nova Scotia by limiting her arbitration act to the past. We have not now what I would call a compulsory act, for in the case of the workmen there is not now a penalty worth calling one attached. The politicians thought they were doing something for the workmen when the penalty for non compliance with any award was reduced from fourteen days pay to the sum of one dollar. There is no terror at an award breaker in no paltry a penalty. When the Act was passed in Nova Scotia neither men nor masters were in love with it, and it never came into general use. However it was not much required, as for the past twenty years trade disputes of any importance have been of rare occurrence here. The time is coming when the people will demand that industrial strife shall cease. The great lockout in the ship building trade in Britain has produced an unexpected result. It has converted trades unionists to a belief in compulsory arbitration. When our own ox is gored we begin to stand up. The lockout is too powerful a weapon, therefore it must be put out of service. A writer in a British paper favorable to trades unions says:—"We assert and shall continue to assert that compulsory arbitration is not only required, but an absolute necessity, and the next Trade Union Congress will seriously discuss that issue." And so the world moves, no matter if it is slowly. There are still some foolish fellows in trades unions who think the ideal way of settling differences is to 'strike.' There is hope, however even for them.

Why is it when we have men in parliament, in the press, and among the general public, ready in season and out of season to denounce the coal operators as the real criminals in the matter of the high cost of coal, and that there is heard the cry at times for government operation of coal mines in particular and the operation of public utilities in

general, we never hear a word of government operation of stock farms and dairies. Are the operators attacked because they are few and feeble, and are the ranchmen and dairymen allowed to go scathless because they are numerous and therefore politically powerful. Are the backed reformers after all, nought else than backboneless shouters. Coal, they tell us, is a prime necessity and therefore must be moderate in price; at the same time they forget to tell us that beef is vital to our physical equilibrium, and ought also to be within the purchasing power of the people. And at present it is not, though there is not a whisper calling for a commission to enquire into its high cost. Let it be admitted that coal in the last twenty years has advanced in price thirty three per cent. How is it with steak and meats generally? Why they have gone up about three hundred and thirty three per cent. when the price has not gone out of sight altogether. I would like to know what has come over Kendall. He tried experiments in providing the Britishers with fresh fish, and the people of N. S. with cheaper coal, but how has he, while attending to these things omitted the weightier matter of beef. Milk and butter and beef are at an outrageous price, and there is no one to kick. Isn't that a trifle strange? Why don't the reformers and the public utilities men and a certain class of politicians go at beef? Ah, my friends, they are very careful as to the goring of the ox. You see it this way. There are thousands upon thousands of farmers in the land, and each one of them has a fattened ox or an ordinary beef cow. And that is not it all. Each one of them, and a son thrown in, has a vote, and votes tell. They are omnipotent in tightening or loosening the reformers' tongues. This beef business is no joke, and the sooner the government takes steps to run all the farms in the common interest the better for the people. The men at Sydney Mines, Trenton, Londonderry, etc. are very much interested in the matter, for while the price of steel is coming down and wages accordingly, the price of beef is steadily going up.

I notice "Aberdeen" appears once again in the columns of the Labor Herald. I wonder if he is the same "Aberdeen" who transfixed us on a former occasion by his flowery eloquence. On this last occasion he puts a brake on his 'pinions' and doesn't soar skyward. He imagines in his latest that he is replying to 'Rambler,' but he very conveniently leaves out the important points. He doesn't quite say this time that the land is the peoples and their fathers before them: he begins to see that the so doing would make of the fathers Indians, for these held the land before the Scot or the Celt laid claim to it. 'Aberdeen', in speaking of the expropriation of the land by the capitalists, must not imagine that the white people were the original owners. The Indians were the first settlers in C. B., and the whitemen, of whom I suppose "Aberdeen's" forbears formed part, drove them out by better methods of warfare. The whiteman drove the Indians into small Reserves and entered upon the land, without fitting compensation, from which he drove them, and this was done in the name of advancing civilization, and, perhaps, it was well that it was done, and it may also be well that big companies

be given powers of expropriation in order the better to carry on business and afford employment to thousands of people. This complaint about not being able to secure land at Aberdeen is a piece of 'cant.' Companies have offered land at a nominal price, in some cases, and in others absolutely without cost, in order that the workmen might build homes of their own. And what was the response? Oh, the companies were crafty; they wished to have some mysterious hold on the workmen, and so the offer went a begging.

Of late we have heard a great deal about the Manitoba electoral lists. The Globe told us that by that law a great many voters would be willfully done by partizan officers. And at the same time it admits that if voters are left off the lists it is largely their own fault. The Globe contends that the lists should be kept open up till a short time before an electoral fight is waged. It puts in a strong plea for time for the party list maker: to find out the names of all who have been left off. I take it from the Globe that a feature of the Manitoba Act is self or personal registration. If that is really so then the Manitoba Act is in advance of that of other provinces. I favor the dictum "If a man does not register, neither shall he vote." What sort of vote can be expected from one who won't move a foot to have his name put on the list? Is he likely to vote intelligently? If he is indifferent in the way of registration, is he not likely to be so also in that of voting. The man who will not attend to timely registration is not, to my mind, the most desirable kind of a citizen. Why have we not compulsory registration, seeing so many admit such would be preferable to the present system of registration by proxy. For much the same reason that the legislature is afraid to pass a comprehensive road act. The politicians are fearful—of losing votes.

The demand of the Nova Scotia Steel and Coal Co's. employees for an increase, all round it is said, is untimely. It is a pity that the able bodied laborer earning less than \$1,40 cannot be given an increase, but for miners, who are making big averages, to demand an increase seems a little out of place. It is surely not possible the Sydney Mines men are making a demand for an increase on the plea that such demand was sanctioned by Grand Council last fall. When the Grand Council last September passed a resolution calling for an increase in May '08, in the wages of laborers and the lower paid mechanics it may have had full justification for its action. At that time trade was booming and there was no cloud on the industrial sky. A storm, known as the panic, burst over the country in October, and transformed the face of things. Since that time trade has been in a most unsettled condition, wages in most industries having a tendency downward. There is a falling off in the demand for coal, though luckily for the trade large orders had been secured before the depression began to be acutely felt. And yet though times are fairly brisk at the collieries they are not booming as last year. For the first time in years slack coal is beginning to accumulate at some of the mainland collieries. Were the Gd. Council asked to-day to pass a similar resolu-

tion to that passed last September they would have no alternative, but to refuse. Conditions have so altered that a demand possible of realization last September is not possible to-day. I think the Sydney Mines men would have displayed wisdom had they limited their demands.

An issue or two back, I said that a big strike fund would never likely accomplish the object of its advocates. To lean on a big strike fund, I might have said, was for the P. W. A. to lean on a broken reed. I do not say that Unions are not the better of moderate funds for cases of emergency, but not for a big accumulation as a 'strike' fund. If the cause is bad the big fund will not save the situation. And the position I took is strengthened by what has of late occurred in the shipbuilding trades in Britain. There was an untimely strike on the Tyne followed by a harsh lockout on the Clyde, and at other points, and the big strike fund idea was found a failure. The men had to give in in spite of their funds. There were five different trade societies engaged in the dispute. Their accumulated funds did not amount to a million dollars only, but to over six and a half millions, and yet they were unavailing. The depression in trade was a factor that even a huge fund could not contend against. Strike funds are sometimes a delusion and a snare. Take the case of the Montreal Bricklayers. No doubt they came out on strike depending on support from the International Union, and they were disappointed, the consequence being that many cannot find work at the old rates. Then came the cotton operatives; they too made a mess of it. Ignoring the depression; wilfully blind to the fact that across the line the workers in the textile factories had been reduced, they struck, and failed. If workingmen in the present state of affairs can hold their own, they do well, and therefore should be careful not to take a step too far in their demands.

The atmosphere around the locality of which Glace Bay is the centre, must be of an exceptionally stimulating quality. It sends some folks soaring. For instance it has had an inspiring effect upon Aberdeen, and a transporting effect on friend Fergus. The one fault with Fergus is that he whets his blade to too keen an edge. Fergus, my friend, did you ever try to cut a sheet of paper in halves, and do it straight with a knife as sharp as a razor. If you did you cannot have forgotten the tendency to run off the straight, and that's you Fergus, you're so sharp at times that you run off the edge. The following is yours, Fergus, taken from last Mondap's Herald:—

"Conciliation can never be made compulsory, because, then it would not be conciliation, but why not arbitration. We have a provincial arbitration act, the board of which consists of (as reported at Grand Council) two men from the government, two from the employer, and one from the workmen. Now, I do not know what government or party passed the law, nor when. It must, in my opinion, been copied from the old Roman or Jewish laws, and remains fossilized, a relic of semi-slavery days. Neither do I condemn the man that framed it; he is probably like Nebuchadnezzar—already condemned. But I do

blame every single member of the government, every single representative we have in parliament, be he liberal or conservative, who allows it to remain in its present form, a disgrace to the statutes of Nova Scotia, and I would ask every P. W. A. man, every working man, every man no matter what his occupation or profession may be, who is interested in the industrial progress of the province, not to vote for any candidate for parliament, no matter what his politics are, who does not promise to become active in amending this act, or in framing a new one which will give both parties to the dispute an equal representation. Then where both parties do not agree beforehand to accept the award of a conciliation board, let compulsory arbitration be enforced."

You like a candid friend, don't you Fergus, so I'll be that to you and tell you for your future good that the whole paragraph is sound and fury signifying nothing. It's a pity you wrote it. Your whole premises are wrong. I freely admit you are not wholly to blame; those in Gd. Council who told you how the Arbitration Act was worded were the sinners, and that without excuse. The Arbitration Act is just as you would want it, except, perhaps, that you might want the government to be out of it; if you do we will not quarrel. But so that you may not fall again into grievous error, with respect to the act, let me quote section 8:—

"8—(1) The board shall consist of five persons, two of whom shall be appointed by the Governor in-Council, one by the agent of the employer who is a party to such dispute, one by the agent of the employed or division who are the other party to such dispute, and one by the persons appointed by such agents."

Now, Fergus, does not this 'give both parties to the dispute an equal representation,' the very thing you so fiercely called for? Now, calmly, Fergus, doesn't it? And if it does this you owe an apology to the old folk of Romé, Jerusalem, and Babylon. Fergus, I am afraid you were a little hasty, just as much so as David was when he called all men liars, though, by the way, you saddle St. Paul with the saying, 'If your premises had only been right your handling of the subject would have been sublime, but, alas, on account of this lack, there will be people cruel enough to call your heroics, hysterics, but I won't, I am still with you, though you made a 'random' slip. For your consolation I throw you the sentiment:—"To err is human" and I wave a human hand as it speeds to Caledonia.

A correspondent writes to the financial editor of the Montreal Star, expressing the opinion that that paper is inclined to 'knock' Nova Scotia Steel and Coal, that is, bear 'Scotia.' For some time back I have been, rightly or wrongly similarly impressed. The financial editor says 'No,' that so far as the steel end of the business of the company went, the Star told only the truth, and as regards the coal end ample justice was done it. Notwithstanding the Star's disclaimer I am not convinced. Since the correspondent wrote there have appeared two references to 'Scotia.' One was headed "Gossip on N. S. Steel" and gave the shipments for May, which of course showed an

increase. There was no gossip about the shipments; the figures represented facts. The other article was headed 'N. S. Steel' without the words 'gossip about' as a prefix, and contained opinions not facts. The article purported to give the quantity of coal that would require to find other markets, and the labor of pitmen that the quantity represented. These at the best were guesses. The Star should take note of the fact that while the steel end of the business suffers from the shutting down of the furnaces, and slack trade, the coal end will profit, as a better price will be had for the coal sent to market than would have been charged the furnaces, so it is not all loss. The Star is not the only paper suspected of 'knocking' Scotia. The financial editor of the Morning Chronicle is inclined to a similar policy, though he may not know it. For instance, though he told us the price in Saturday's paper at which N. S. had closed on Friday, he had to publish in Monday's issue a statement taken from Friday evening's Star in reference to the weak closing on Friday, and the opinion of a broker that there were no 'shorts' on N. S. Steel. Where was the necessity for this rubbing it in? The fact is the directors of the N. S. S. & Coal Co. are not speculators and give the stock no support, hence it is made a football. 'Scotia' is a much better proposition than many stocks more highly favored, and that will be made manifest ere long. Since writing the foregoing I notice the following in Saturday's Star, which leads me to a firmer belief in the Star's 'knocking.' Indeed it begins to look as if it took strange delight in hunting up bear stories about N. S. S. :—

"A Montreal man who knows something about Nova Scotia Steel said to the Star:—"At present the rolling mills at New Glasgow are stocked with orders for four or six weeks. There is no new business coming in, and it is probable that there will not be any. The company is not laying off any men, but is not filling vacancies which occur. The axle plant is practically idle. This plant was constructed last year, and represents considerable capital expenditure. It is generally thought that the directors showed very little judgement in building this plant at the time when other companies were curtailing their operations. One trouble with the Scotia Company has been that its credit has been entirely too good, and money has come too easily."

The whole paragraph is misleading; some parts absolutely false. First of all the 'Montreal Man's' statement as to the trade outlook is untrue. The fact is there is more business in sight to-day at Trenton than at any time during the past six months. The axle plant it is true, is not rushed, but it can afford a rest for a while, for more axles were made by it last year than by any plant in Britain, or America or for that part in any country of the world. Will the Star note that important fact. The axle plant, it is also true, was erected last year, but why? Because the forge had been consumed by fire. A new one had to be built and the directors were wise, and not foolish, in putting in a plant fitted for modern needs. The cost was comparatively light. The directors displayed excellent judgement in the reconstruction of the forge, and no doubt would do

the same thing now had they to do it over again. The Star can take it for a fact that the "Montreal man" if he did not speak with a bearish object in view, spoke culpably, being ignorant of his subject. The time is not far distant when the Nova Scotia Steel and Coal Coy. will be able, from its profits on coal and ore mining, to pay steady dividends, wholly independent of any profits from the products of steel. With five collieries soon in active operation the company should be producing at over a million tons a year.

According to a Halifax despatch to the Montreal Star the Nova Scotia holders of D. I. & Steel are opposed to any peace proposals. They think that \$1.24 is an honest price for slack coal. Says the despatcher:—"There is not a mine owner in Nova Scotia but would gladly sell all his slack at \$1.24 if he were sure of a market all the year round". Coal it seems is the one subject on which every man and boy can talk with authority. For the past five or six years manufacturers and consumers generally of that class of coal have begged to get it at a much higher figure than \$1.24 and were simply told they could not. Some years ago when screened coal was universally called for fifty cents per ton might have been considered high for slack. With the increasing demand for run-o-mine, slack is considered cheap at a dollar fifty. Will the Star kindly ask its correspondent to tell people, how, if the present price charged by the Coal company is a good deal too high, (the writer expresses no opinion) the Steel company offered lately certain operators two fifty for slack delivered at Sydney. Was it solely because this particular slack was of a better quality? It may be possible that some operators might sell slack at \$1.24 for an all the year market, but it would be that sort of slack which fires without stoking—a kind that might prove more sulphurous than derided No. 6. Slack at \$1.24 is a present impossibility.

On several occasions in the Record, I have maintained that the one object of Trades unions ought not to be the striving after better wages; that that, while one of the objects, might not be the only or the chief one. The views I expressed are strongly emphasized in the following by John Mitchell of the U. S. :—

"I am a trade unionist. I am not one of those who believe that the trade union is the ultimate. I recognize the fact there is a great evolutionary movement going on; that it is slowly but surely changing our social life. But, nevertheless, my experience has satisfied me that the trade union movement is the best movement ever born for the amelioration of the condition of those who toil.

"If I believed that the trade union movement stood for nothing else than securing a few cents higher wages or securing a few hours less labor, I would leave it. If I thought that is all it does, I would quit the trade union movement and I would try to start myself a new movement. But I believe it does more than that. I believe the trade union movement raises the standard of our citizenship; I believe it raises the manhood and womanhood of all our people. And any movement that elevates society, that elevates the manhood and womanhood of our people, contributes immeasur-

ably to the good of the country"

I am not an old man yet, but I have seen many practical results from the trade union movement. I have seen in my life thousands who employed labor, and thousands who labor, brought together and made to work in harmony.

I do not believe that in our country there should be an irreconcilable conflict between labor and capital. Notwithstanding the fact that I have gone through quite a number of strikes, I have not yet abandoned my opinion that if the representatives of labor can be brought together, if they can sit down in honest conference, if they will look one another in the eye and tell one another the absolute truth, I believe when that is done that the day of conflict between labor and capital will end.

I have never been one to believe you help labor by denouncing capital. I am one of those who believe that there is not one wrong that labor suffers which it did not bring on itself. I do not believe, either, that any of us are poor because we cannot get rich honorably. I believe that if labor will do its duty all the misery and all the suffering that labor has endured from the beginning of the world will end.

I believe it to be the duty of every man and every woman who works for a living, who works for wages, or a salary, to join a trade union, and I believe the man or woman who works for wages and remains out of a trade union to be blind to their own interests. Not only that, but they are positively injuring the chances and the interests of their fellow men and fellow women. I believe that the trade unions stand for all that is good, for all that is best in citizenship. If I thought the trade union movement depended upon lawlessness for their success, I would abandon the trade union movement. I do not believe that a strike was ever won because of violations of law. I do know that strikes have been lost because the laws were broken. *

In my judgement no great strike can ever succeed if the American people are opposed to it. I have an abiding faith in the people of our country. I believe the American people always try to be right. I believe that if they decide, if they conclude that a question is right, that a strike is right, that the strike will win; and if they conclude the strike is wrong, then the strike will not succeed. It pays to consult the wishes of the best people.—Trades Union News.

An educated blind person is as a rule self-reliant, self-supporting, and an inspiration to those with whom he comes in contact. An uneducated blind person is a burden to himself and to his friends. Education is free to every blind boy and girl in the Maritime Provinces and Newfoundland but this fact is not always known to the parents of such children. Our public-spirited citizens, boys and girls as well as grown-ups, to help forward the work of the school for the blind at Halifax can best do so by sending to the Superintendent the names, ages and addresses of all blind persons under twenty-one years of age. Address to C. F. Fraser, Superintendent School for Blind, Halifax, N. S.

THE PRICE OF STEEL AND DULL TRADE.

The price of the products of steel and iron have been reduced from 5 to 10 per cent. There are those who think that this reduction will have the effect of causing a demand for structural steel, and increased activity in building, while there are others who think that the reduction is not sweeping enough to have any marked effect on the present situation. Referring to the effect of high prices in steel as a cause of the present depression in the iron industry the Journal of Commerce says:—

"There is no doubt at all that the holding up of iron and steel prices during the last six months has intensified the general industrial depression and hindered all efforts at recovery by keeping up the cost of construction, equipment, and operation in many lines, manufacturing as well as transportation. Orders have been held back for a fall in prices which did not come and without which nothing could be made by giving the orders. The relief afforded by the final relenting of the 'combine' is not enough to give much impetus to recovery, but it will ease the struggle somewhat. There is a gentle intimation that a reduction in wages may follow this grudging fall in prices, but, 'it is hoped' that there will not need to be a general or radical readjustment.' The purpose of this intimation is obvious enough, but if there had been no unreasonable restraint upon competition and the law of supply and demand had not been hampered, both wages and prices would have come down months ago, to the benefit of labor and capital alike and the general revival of industry and trade."

STRIKES.

Many weeks ago, as often before, we pointed out that, while on a rising labor market strikes generally appeared to succeed, being in the line in which change was necessarily taking place, when the time of stringency came, and it became inevitable that rates of labor should fall, it was equally inevitable that the strikes should fail, and the strikers would find that they had been just playing into the hands of the employers who would have had to close down if they had not gone out. This is exactly what has taken place. The strikes in the textile mills, that were so truculently promoted by persons who had nothing to lose by them, have failed of any other purpose than to throw many of the strikers hopelessly out of work. In a falling market it does not pay to keep up production, and a minimum of activity is most profitable for the mills. When any one class of workers, thinking itself indispensable, undertakes to force the other workers out of work that they may enforce on employers a rate of wages which they cannot pay, they sometimes find that they have miscalculated their indispensableness and their consequent power to dictate. The general rule is that, up to the market price of their labor, employees can always dictate, and it is always right that they should. When they insist on getting more than the market price they generally fail, simply because the market will not stand it. The same thing has resulted from the bricklayers' strike. Bricklaying is a natural monopoly. It is not an industry, like mule-

spinning, that can flee to another city or another country. It must be done on the spot. This makes bricklayers' unions more despotic than those of workers in competitive production. But the same law of supply and demand haunts them. Mr. Lauer, representing the contractors, has formally declared the trouble over, not that any agreement has been come to, but simply that there are enough of men at work for the little work that is doing. These men are getting more pay than will leave a profit for the contractors at present prices, but in many cases less than the union demanded. The contractors simply could not pay more and get work. Those bricklayers who have gone out of work, counting on some foreign combination to keep their families alive while they did so, have been disappointed in this also, for the good reason that the causes that have led to shortness of work here have been still more acute elsewhere, and the demand for such aid came from everywhere at once. There is nothing arbitrary in this reduction of wages. It was simply inevitable; and those who exhorted the workers to fight against it led them in a forlorn hope—Montreal Witness.

REVOLUTION IN MARINE ENGINEERING.

The day will come—and it may not be so far off, either—when vessels will no longer require coal or boilers or steam, nor electric power to drive their machinery; in fact the probabilities are that the present complicated mechanisms will give way to simplicity. The power of the ocean will then be put into harness to drive forward the vessel through the watery element—water will, indirectly, contend against water. Smoke, stoke, holes, boilers, and funnels will disappear from the ship, and boiler explosions will be a thing of the past. Conning stations may even become obsolete. The agency of motion will then be the force of the sea acting on the turbine which will drive one or more propellers. Here, again, the wind might be called in to assist the means of propulsion.

IS DYNAMITE WATERPROOF.

It is a mistaken idea to believe that dynamite is waterproof, and that any amount of soaking or stemming will not injure it. Many shot-firers will deliberately soak dynamite in hot water for half an hour, or thaw it with live steam, under the supposition that such treatment does not injure it. Dynamite soaked in hot water for fifteen minutes, and then allowed to steam for half an hour, has been found to have taken up over 10 per cent. of water, enough to reduce the explosive force by half, and possibly enough to render it non-explosive. Dynamite left for a day in a thaw house filled with escaping steam has been found to have taken up 18 per cent. of moisture. It is not known exactly how much water is required to render dynamite non-explosive, but 5 per cent. of water greatly reduces the explosive force of any dynamite and cartridges which contain 12 per cent. of moisture have been rendered non-explosive.—Science and Art of Mining.

AROUND THE COLLIERIES.

The Intercolonial Coal Co. loaned the Acadia Coal Co. their coal carrier *Havsa* for a trip with coal to the St. Lawrence.

The Twin City Coal Co., of Edmonton, Alta., have recently purchased an 80 Horse Power Robb-Mumford Water Tube Boiler.

The output of the Emery is crawling up gradually. The mine is now in good shape. It is asserted that this is the only real longwall mine in Canada, though there is longwall work of a kind in some other collieries.

A writer in a late Halifax Herald says that "the Mining Record" has told us that the grit government is opposed to an eight hour day". The Mining Record has said nothing of the kind or anything approaching it. The statement is an undiluted heraldism.

Who ever heard of any good coming from every one attempting to rule. No advance can come from a system of such false democracy. No true advance or good can come without free and complete executive control, and yet that's the way that not a few of the spouters in some unions would have it.

The Mines Regulation Act, consolidated at last session of the Local Legislature, will be ready for distribution next week. The law enacts that every one being employed for the first time, shall have a copy and every other one who applies for it. As ignorance is no excuse at law, every colliery worker should secure a copy.

The Glace Bay Gazette is to be commended on the stand it is taking in reference to two separate cases of drowning which occurred in Glace Bay lately. There has been more than one mysterious disappearance from that locality of recent years, and little if any enquiry instituted. If there has been foul play in either of the two cases now exciting interest it is to be hoped that the guilty parties will be found out and punished, that is if a jury with sufficient moral backbone can be found to convict a wrong doer. We see nothing more than wind in the remark of the commercial man who said: "If ever I commit murder I hope I may be tried before a C. B. jury."

Herein is a marvellous thing. It is said that 'enquiries' have been made on the Mainland for slack for the Island, not for immediate shipment, but for delivery in the fall. It is not known that any contracts have been made, and it is hard to see how any can be entered into unless the purchaser is willing to pay a much higher price than he would be called upon to pay for supply coming from nearer home. Slack from the mainland could not well be delivered in Sydney at a less price than \$2.75 as the lowest rail rate is \$1.25 per ton. As \$3.00 is the price for bunker coal it cannot be that the Island operators are getting anything like \$2.50 for slack. Whats in the wind anyway. By the way seeing the furnaces at Sydney Mines are shut down a supply of slack might be had from the N. S. S. & Coal Co. at a less rate than \$2.75.

The result of the referendum in the matter of the absorption of the P. W. A. by the foreign U. M. W. leads to the possibility or, more properly, probability at the time of writing, that there will be two labor unions in connections with the collieries in N. S., that is unless those who voted for absorption give way, or the U. M. W. officials do not consider the vote decisive enough to warrant them in introducing their society in N. S. The vote in Pictou Co. for instance, is so overwhelmingly in favor of the P. W. A. that it is not expected for a moment that the Pictou lodges will abandon the P. W. A. for a strange and alien society. Pictou and Inverness counties are to be congratulated on their loyalty. The norther part of Cape Breton Co. also did well. The vote published, which cannot be complete, gives a majority of 459 in favor of absorption, viz:—

Glace Bay.....	867	for P. W. A.	1556	against
Sydney Mines	439	"	347	"
Inverness.....	342	"	80	"
Pictou	645	"	54	"
Cumberland.....	71	"	785	"

The vote represents about half the membership.

In Pennsylvania, the condition of the miner with respect to the daily wage, hours of labor, sanitary surroundings, protection from accident, and pecuniary relief in case of disability, is a fortunate one when compared with conditions that exist in many other States and countries. In this State we have at many collieries in the Anthracite region what are known as First Aid to the Injured Corps, whose prompt and efficient service has in very many cases of emergency greatly lessened the suffering of the injured workers. There are also established at the various collieries emergency hospitals, the beneficent character of which is being daily demonstrated. And to lighten the immediate distress of the men who are injured in the mines, and to give their families temporary financial assistance, many companies have established relief funds.

The coal mines of the Miike coal-field in Japan are the largest in that country, producing on an average 4,000 tons of coal in a working day of 24 hours. The area being developed is about 300 acres, while the thickness of the two seams worked varies from 5 to 25 feet. The coal obtained is a coking bituminous, and is excellent for boiler use. The amount of coke produced per ton of coal is about 58 per cent. while the tar obtained averages about 10 per cent. and is of excellent quality. The coal is obtained by the room and pillar system, and about 30 per cent. of the bed is extracted. The cutting is mostly done by hand, a miner averaging about 2 1-2 tons per day. The chief obstacle to be overcome in these mines is water; for every ton of coal mined, 12 tons of water are pumped from the workings.

Amatite

ROOFING



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

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

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

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

These facts make Amatite the most desirable roofing made.

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

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

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

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

Free Sample & Booklet.

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

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

The Dominion Coal Co., of Glace Bay, C. B. have recently ordered a 16x16 inch Robb-Armstrong Automatic Engine for driving a mine ventilating fan at their No. 6 Colliery.

The Western Fuel Co. of Nanaimo, B. C. have recently purchased a 90 inch double inlet half housed Sirocco mine ventilating fan having a capacity of 200,000 cubic feet of air per minute at 275 R. P. M. or 300,000 cubic feet of air per minute at 405 R. P. M. This fan will be built by the Robb Engineering Company of Amherst, N. S., who have made arrangements with the Sirocco Engineering Company of New York to manufacture their fans in Canada.

INTERCOLONIAL RAILWAY.

DOMINION DAY JULY 1, 1908.

Return Tickets will be sold at **FIRST CLASS ONE WAY FARE** Good going June 30th, and July 1, Good for Return until July 2nd '08

To all stations on the Railway and to Detroit, Port Huron and Sault Ste. Marie, Mich., and points in Canada East thereof on the G. T. R. and C. P. R.; also to points on the Dominion Atlantic Ry., Cape Breton Ry., Cumberland Ry. and Coal Co., Halifax and South Western Ry., Inverness Ry. and Coal Co., Quebec Central Ry., Sydney and Louisburg Ry., Tenesimata Ry., and Prince Edward Island Ry.

Note—In cases where Excursion Tickets issued to Intercolonial Ry. points on June 30th, would not enable passengers to reach destination prior to noon, July 1st., tickets may be issued on June 29th.

Tarred Air Proof

ALSO
FIRE PROOF.

—COLORLESS—

—NON-INFLAMMABLE—

**PROMPT
DELIVERIES**

As Used
by the Leading
Scotch-English
and
Welsh Collieries

**DRUMMOND,
MCCALL & CO.**

MONTREAL and LONDONDERRY, N. S.

BRATTICE CLOTH.

Plumbago

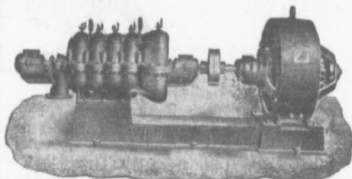
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Purposes.

The
**Dominion Foundry
 Supply Company,
 Limited.**

Montreal and Toronto.

Westinghouse Motors for Mines



Westinghouse Motor Driving Dayton Turbine Pump.

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

CANADIAN WESTINGHOUSE CO.,

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Have Excellent
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WILL NOT COCKLE
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**SPRING AND SUMMER
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All Ladies who wish to look well
 wear **Priestley's Dress Goods.**
Greenshields Limited, Sole Agents.
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The **TORNADO** AIR POWER ROAL DRILL

is used extensively

by the

Dominion Coal Co

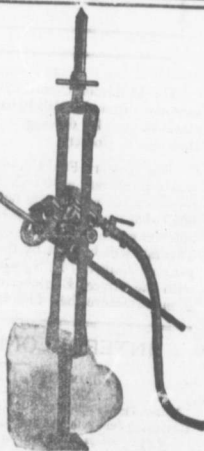
Nova Scotia Steel

and Coal Co.,

Inverness Ry.

and Coal Co.

and others.



Herzler & Henninger Mach. Works

Manufacturers of

H. & H. Coal Cutters & Tornado Coal Drills

Belleville, ILL., U. S. A.



Synopsis of Canadian North-West. Homestead Regulations.

ANY even numbered section of Dominion Lands in Manitoba or the North-west Provinces, excepting 2 and 30, 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 situate. Entry by proxy may, however, be made at an Agency or certain conditions by the father, mother, son, daughter, brother or sister of an intending homesteader.

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

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

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

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

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

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

The homesteader is required to perform 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 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 acres in extent, in the vicinity of the homestead or upon a homestead owned by him in the vicinity, such homesteader may perform his own residence duties by living with the father (or mother).

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

(5) A homesteader intending to perform his resident duties in accordance with the above 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, with 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. U

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 320 acres can be acquired by one individual or company. Royalty at the rate of ten cents per ton of 2000 pounds shall be collected on the gross output.

QUARTZ. A free miner's certificate is granted upon payment in advance of \$5 per annum for an individual, and from \$20 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 \$10 must be expended on the claim each year or paid to the miner recorder in lieu thereof. When \$500 has been expended or paid, the locators may, upon having a survey made, and upon complying with other requirements, purchase the land at \$1 per acre.

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

Placer mining claims generally are 100 feet square; entry fee \$40 renewable yearly.

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

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

W. W. CORY,

Deputy of the Minister of the Interior.

Miners Wanted To Chew BULL DOG TOBACCO,

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

TRY IT!

The St. Lawrence Tobacco Co., Ltd.

—Montreal.—

—W. B. Reynolds, Halifax Representative—

Brick! Brick!

The Westellar Terra Cotta Company

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

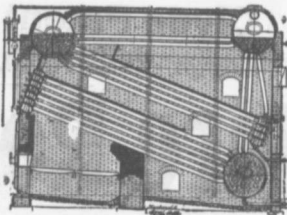
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GEO. E. MUNRO, Sec'y, WESTVILLE, N. S.

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WATER TUBE BOILERS



FREE EXPANSION OF TUBES.

PERFECT WATER CIRCULATION.

DRY OR SUPERHEATED STEAM

HALF THE USUAL NUMBER OF HANDHOLES.

ROBB ENGINEERING COMPANY, L^{td},
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CURTIS'S & HARVEY, LTD.

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...EXPLOSIVES...

BEST QUALITY ONLY.

Blasting Powder and Compressed Pellets, Dynamite,
Gelignite, Gelatine Dynamite and Blasting Gelatine.**PERMITTED EXPLOSIVES.**

For use in Gaseous mines. suitable for all kinds of Work.

Bobbinite, Curtisite, Excellite, Kolax, Rippite, &c., &c.

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3 Gracechurch St. London, E.C.

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Rutherglen, Glasgow, Scotland.Cable, A. B. C. (4th & 5th Eds.)
A. L. Liebers and Private.**Wire Ropes**for
Winding & Haulage
in
Collieries and Mines.Aerial Ropeways, Suspension Bridges, etc. Specially
flexible for Ore & Coal Discharging Cranes, Winches, etc.

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

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

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CANADA FOR THE CANADIANS!
WIRE "DOMINION" ROPE
 For Everybody.
 —PATRONIZE HOME INDUSTRY—
 The DOMINION WIRE ROPE CO., Ltd., Montreal

INVERNESS IMPERIAL COAL

INVERNESS RAILWAY and COAL COY.
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Miners and Shippers of INNERNLESS (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,
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MABOU & GULF COAL COMPANY, L'T'D.

Miners of the
MABOU DIAMOND COAL.

Burns and Works like Bituminous;
 Looks and Lasts Like Anthracite;
IT HAS NO EQUAL.

Mines, Piers
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INVERNESS RY. & COAL CO'Y

Time Table No. 24, Taking effect at 1 a. m.
 FEB. 2ND. 1908.

EASTBOUND		STATIONS.	WESTBOUND	
Read Down	No. 54 p. m.		Read Up	No. 55 p. m.
L 11 06	L 3 20	C. TUPPER JUNCTION	A 10 30	A 2 30
S 11 06	S 3 20	PORT HAWKESBURY	S 10 45	S 3 27
A 11 20	A 4 00	PORT HASTINGS	L 10 27	L 3 10
F 4 25	F 4 25	TROY	F 10 07	F 3 07
S 4 28	S 4 28	CHEBUSH	S 9 54	S 2 54
F 4 50	F 4 50	JUDIQUE	F 9 27	F 2 27
S 5 05	S 5 05	CRAIGMORE	S 9 17	S 2 17
F 5 10	F 5 10	CATHERINES FOND	F 9 08	F 2 08
A 5 30	A 5 30	PORT HOOD	L 8 47	L 1 47
L 5 9	L 5 9	GLENCOE	A 8 45	A 1 45
N 6 10	N 6 10	MABOU	S 7 55	S 1 05
S 6 20	S 6 20	GLENDYRE	N 7 43	N 1 00
N 6 48	N 6 48	BLACK RIVER	F 7 33	F 1 00
S 7 00	S 7 00	STRATHLORE	S 7 17	S 1 00
A 7 15	A 7 15	INVERNESS	L 7 00	L 1 00
P 11	P 11		A 6	A 6

Trains make close connections at Pt. Tupper Jct.
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North Atlantic Collieries,

LIMITED.

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

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

EXCELLENT FUEL FOR

Domestic, Steamship
and Railway Use.

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

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

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Quick Dispatch.

Mines Office, Port Morien, C. B.

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PATENT WATER TUBE BOILERS.

Over 6,500,000 H. P. in use, Fired with all kinds of Fuel

Steam Superheaters, Feed Water Heaters, Mechanical Stokers, Coal Conveyors, Steel Chimneys, Structural Steel Work, Electric Cranes, Piping.

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Loose leaf supplies of all kinds made to order.

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Best all round flour on the market.

Uniform in quality. Every barrel

can be depended upon. This flour can

only be had in Cape Breton at the stores

of the Dominion Coal Company.

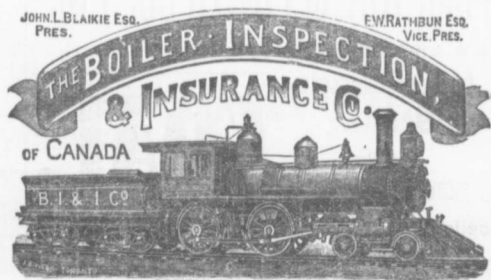
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Unequaled for Durability and Power Transmitting Qualities.

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Complete equipments furnished for Coal or Gold mines.

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

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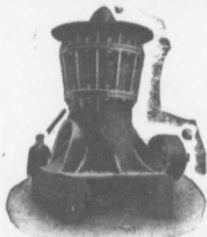
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Better than
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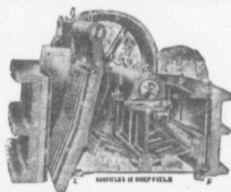
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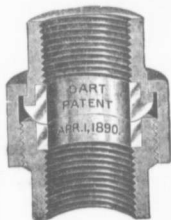
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Sole Representatives of the Hadfield Steel Foundry Company, Limited Sheffield, for Canada,

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Join Our Union.



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

**The Strongest Union
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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
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CHAINS. CHAINS.

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"EDGES" BEST SPECIAL CRANE CHAINS.

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

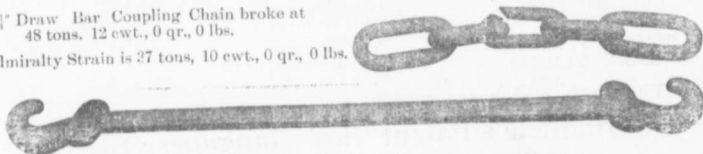
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Coupling Chains and Solid Forged Draw Bars

For Mine Cars, A SPECIALTY.

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

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Draw Bar for Coal Car.

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RAILWAY AND

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OPERATING THREE
THICK SEAMS
NOS 1, 2 AND 3.

—Miners and Shippers of the Well Known—

FRESH MINED SPRINGHILL COAL

... ANALYSIS ...

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

BEST COAL FOR
LOCOMOTIVE USE.

Delivered By Rail or Water

BEST COAL FOR
GENERAL STEAM PURPOSES.

The year Round

BEST COAL FOR
DOMESTIC CONSUMPTION.

IN Lots To Suit Purchasers.

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Mined in the Province.

N. S.

Dominion Coal Company, Ltd.

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

—Yearly output 3,500,000 tons.—

ANALYSES.

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

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

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

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

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

:: BUNKER COAL ::

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

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