



Cumberland. * Pictou. * Cape Breton. * Inverness
New Series Vol. 10 No. 7 October 9th 1907 STELLARTON, N. S.

...DOMINION...
Iron & Steel Co'y,

LIMITED.
SYDNEY, NOVA SCOTIA.

FOUNDRY
PIG IRON.

Basic
Open
Hearth

STEEL

Brands :

"Dominion."

"D.I.S.C."

Blooms, Billets Slabs.

Rails Weighing 56lbs, per
lineal yd. and heavier

WIRE RODS.

A. B. C. & A. 1 Codes used.

Telegraphic Address, Latch, Haymills

LATCH & BATCHELOR, Ltd.

AMALGAMATED WITH
WEBSTER & HORSFALL,

(ESTABLISHED 1730.)

Works: **HAYMILLS, BIRMINGHAM, ENGLAND.**

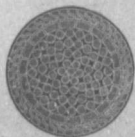
AGENT: **H. M. WYLDE,** P O Box, 529 **HALIFAX N. S.**

Patentees and Manufacturers of

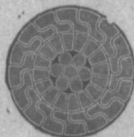
Locked Coil and Flattened Strand **WIRE ROPES.**

Manufacturers of all Kinds of **WIRE ROPES** for

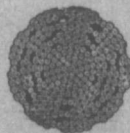
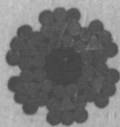
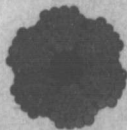
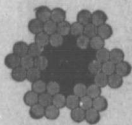
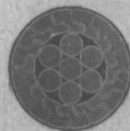
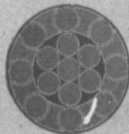
**Mines, Tramways, Aerial Ropeways, Suspension
Bridges, Cranes, Elevators, Transmission of
Power, Steam Ploughing and General
Engineering Purposes.**



Locked Coil Winding Cable.



Locked Coil Aerial Cable or Colliery Guide.



Lang's Lay or Ordinary, Patent Flattened Strand Winding or Hauling Patent Flattened Strand, (non spinning)

DRAWERS OF all Sections of **HIGH CLASS STEEL-WIRE.**

for Ropes, Springs, Pianos, Needles, Fish-Hooks
Binding Armatures and all other Purposes.

ACADIA POWDER CO., LTD.

MANUFACTURERS OF

DYNAMITE.

Blasting and Sporting Powder, Pellet and Grained Powder for Coal Mining.

**FLAMELESS EXPLOSIVES for GASEOUS MINES,
DYNAMITE, for SUBMARINE BLASTING, SUBMARINE FUSES.**

—MANUFACTURERS AGENTS FOR—

**Electric Blasting Apparatus, Electric Batteries,
Electric Fuses, Insulated Wires, Safety Fuse
Detonators, Etc.**

OFFICE: —76 and 78—

Telephone 251. P. O. Box, 520

GRANVILLE ST., HALIFAX, N. S.

..J. W. CUMMING..

Designer and Manufacturer of



COAL DRILLS and all
Kinds



High Grade Miners Tools,

MINE CARS AND HITCHINGS,

LIGHT AND HEAVY FORGINGS.

P. O. Box 50, - - New Glasgow, N. S.

Miners Wanted

TO CHEW!

PAY ROLL

Plug Tobacco

WANTED.

At the several collieries of the Dominion coal co. Limited, skilled coal miners and mine laborers.

Apply on the works Or by letter

Dominion Coal Company, Ltd

Genuine Garlock Packings
FOR ALL PURPOSES.
Pipe and Boiler Coverings,
ENGINEERS SUPPLIES.

also

"Tauril" High Pressure Jointing
the Best Sheet Packing yet
Produced.

THE GARLOCK PACKING CO.
HAMILTON, ONTARIO.

Used by Collieries in Lancashire, Staffordshire
& Yorkshire

'XTERRA'

COLLIERY LAMP OIL.

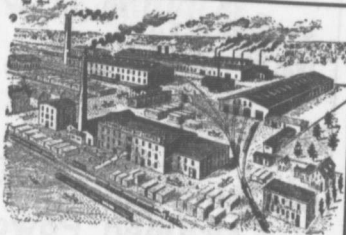
For Marsaut, Miquels' Deflector or Closed Lamp

PURE WHITE FLAME

LOW PRICE

E. WOLASTON, Dutter St MANCHESTER

Sole Representatives for Canada, AUSTEN BROS.,
14 Vifax, N. S.



RAILWAY
STREET and
MINING

—MANUFACTURERS OF—

CARS,

CAR WHEELS
FORGINGS &
CASTINGS

Church Pews,
Fittings for Stores, Schools, &
A SPECIALTY

Large Stocks of Foreign and Domestic Lumber on Sale.

Rhodes, BUILDING MATERIALS
Curry & co., Ltd. GENERAL
Branch BOBBIE STREET,
HALIFAX, N. S. AMHERST, N. S.

INTERCOLONIAL RAILWAY

On and after MONDAY, JUNE 18 1907 trains
run daily, Sunday excepted, as follows:—

—TRAINS LEAVE STELLARTON—

No 144 Mixed for Hopewell	5.55
No 79 Mixed for Truro	6.25
78 Mixed for Hopewell	6.35
19 Express for Halifax, and St. John	7.40
21 Mixed for Pictou Landing	7.40
65 Mixed for Pictou	7.45
65 Express for Mulgrave	8.39
19 Express for Syd y	10.55
28 Mixed for Pictou	11.00
66 Mixed for Truro	12.85
65 Express for the Sydney	13.40
20 Express for Halifax and Montreal	16.00
140 Mixed for Pictou	16.00
140 Mixed for Pictou Landing	16.50
22 Mixed for Ho swell	16.50
65 Mixed for New Glasgow	18.10
20 Express for Halifax and St. John	18.40
37 Express for New Glasgow	19.50
66 Express for Pictou	21.15

—TRAINS ARRIVE AT STELLARTON

79 Mixed from Hopewell	6.30
78 Mixed from Truro	6.55
61 Express from Pictou	7.35
25 Express from New Glasgow	7.35
21 Mixed from Hopewell	7.35
65 Mixed from Truro	7.35
28 Mixed from New Glasgow	8.50
67 Mixed from Pictou	10.35
66 Mixed from Mulgrave	10.40
19 Express from Halifax and St. John	13.15
139 Mixed from Pictou	16.45
85 Express from Halifax and St. John	15.25
30 Express from Sydney	15.30
22 Mixed from Pictou Landing	15.50
77 Mixed from Hopewell	16.10
65 Mixed from Pictou	18.45
65 Express from the Sydney	18.50
20 Express from Halifax and Montreal	19.40
66 Express for Pictou	21.10
17 Express from St. John and Halifax	21.05

Atlantic air run by Atlantic Standard time Twenty four
O'clock is mid-night, Moncton, N. S. June 18th, 1907
Parlor Cars between Halifax and Sydney, Dining Car
on No. 65 train between Halifax and Mulgrave, on No. 89
train between Mulgrave and South River, on No. 19 train
between South River and Mulgrave, On 85 train between
Mulgrave and Halifax.

**WIRE
ROPE**

HIGH GRADE WIRE ROPES FOR
Hoisting, Haulage, and Colliery Purposes.
Manufactured by **Dominion Wire Rope Co., Ltd., MONTREAL.**
AUSTEN BROS.—HALIFAX AGENTS.

MONTREAL STEEL WORKS Limited.

STEEL CASTINGS
FORGINGS,
SPRINGS,
FRIGS,
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—

ESTABLISHED 1863.

Phillips Mine & Mill Supply Co.

PITTSBURGH, PA.

Works, South 23d, 24th, Jane and Mary Streets.
Office, 2227 Jane Street.

Screens, Screen Bars, Screening Plants Complete,
Car Dumps, Cars, Car Wheels, Larry Wagons, Hitchings, Etc.
LET US SUBMIT PLANS AND ESTIMATES.

MANUFACTURERS OF

Coal and Coke Works Equipment.

Head-quarters in Nova Scotia for

'White's' London Portland Cement.
'Gartcraig' Scotch Fire Brick,
Allan-Whyte and Company's Wire Ropes.
'Firths' and 'Black Diamond' cast Steel.
'Bennett's' Safety Fuse and Detonators.

STEAM PIPE AND FITTINGS.

WM. STAIRS, SON & MORROW, LIMITED,

HALIFAX, N. S. General Hardware. Metals Plumbing and Mining Supplies. HALIFAX, N. S.

**NOVA SCOTIA STEEL & COAL COMPANY,
LIMITED,
MANUFACTURERS OF**

STEEL

**MERCHANT BARS,
SHEETS AND PLATES**—From 12 gauge up to 1 inch thick. Any Widths
up to 50 inches.

HEAVY FORGINGS, HAMMERED SHAFTS

... NOTHING REQUIRED IN CANADA TOO LARGE FOR US. ...

Steam and Electric Car Axles

Fish Plates and other Railway Materials

Tee Rails - 12, 18, and 28 lbs per yard

Scotia Pig Iron for Foundry Use.

Also MINERS and SHIPPERS of

The Famous Old Mines "SYDNEY"

COLLIERIES :
SYDNEY MINES

COAL

SHIPPING PORT
NORTH SYDNEY.

An Unsurpassed Evaporating Coal.

Highest in Carbon, Lowest in Ash.

Unrivalled Facilities for Bunkering at North Sydney.

The Best House Coal.

The Best Steam Coal

QUICK DISPATCH LOADING—BEST RESULTS STEAMING.
Two points that always appeal to Shipowners.

—SAILING VESSELS LOADED PROMPTLY.—

For Prices and other Particulars. apply to

Head Office, New Glasgow, N.S.

Miners Wanted.

Steady Employment, Good Wages,
and Free Land for Homes for Coal Miners,
at MINTO, NEW BRUNSWICK.

The New Brunswick Provincial Government will give 10 Acres of Land FREE to Coal Miners who will settle at Minto, N. B. The conditions being the erection of a house and the occupation of the land for three years, and working in any of the Mines. For further information apply to **W. C. HUNTER, Manager,** New Brunswick Coal and Railway, (operated for the province of New Brunswick by a Government Commission.) Norton, N. B.

Coal Miners Wanted

—at—
Minto Mines. Minto N. B.

APPLY TO

G. H. KING,

CHIPMAN, N. B.

Mining & Mill Supplies.

Valves,
Fittings,
Packing,



Boiler
Tubes,
Steel
Plates,
Angles,
Tees, etc.
SOLID DIE
RIVETS.

Steam Goods
—of every—
Description.

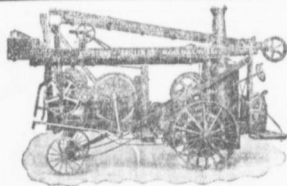
**Iron Pipe for
Mining Purposes.**

—Catalogues and Prices on Application.—

THOMAS ROBERTSON & CO.,
—LIMITED—

MONTREAL, QUE.

—Established 1852—



The KEYSTONE

Percussion Core Drill Attachment

is an economical appliance for
TESTING COAL LANDS.

It can be used in connection with any good "clara" drill, but operates best on the long stroke KEYSTONE, thus making the cheapest and quickest method of boring to be found.

In operation a hole is sunk to the coal with the ordinary Rock Bit. The Bit and Stem are then removed and the Coring Attachment put on in their place. It takes a 4 ft. core out of the Softest as well as the Hardest part of the vein. Avoids all delay and expense of "rods" water wash, diamonds, shot, and heavy operating mechanism.

Price of Complete Attachment
\$200.00

Catalog No. 2 B. is a book on the subject.
We make Water, Oil & Test Well Drillers
for all depths and purposes.

Keystone Driller Co. Beaver Falls, Pa.

ONE MAN'S VIEW. A well-known mining man recently finished an inspection of the ATTRACTITE coal fields of Pennsylvania. When asked what impressed him most, he said:

"The clarity of the water, and the fact that of all the pumps I saw three two out of three were Jeanesville Pumps."

An illustration at least that we know how to handle the acid water problem.

When you send us the lift and quantity of water and the available power, we will send you complete information about what we can do for you.

Our bulletin No. 8, fresh from the printer, is full of up-to-date information. Write for it now before you forget.

Jeanesville Iron Works Co., Hazleton, Pa.



NOVA SCOTIA, Mines of Gold, Silver, Coal, Iron, Copper, Lead, Etc.

Titles direct from the Crown
At Moderate Royalties.

GOLD AND SILVER.

Licenses are issued for prospecting for Gold and Silver for a term of twelve months. They comprise areas 150 by 250 feet, and any number can be obtained, at a cost of 50 cents per area. Leases of any number of areas can be obtained, at a cost of \$2.00 per area, for a term of 40 years; subject to an annual rental of 50 cents per area.

Licenses are issued to quartz mills, which make returns and pay royalty on the gold at the rate of two per cent, on milled Gold, valued at \$19.00 per oz.

Minerals other than Gold and Silver.

—LICENSES TO SEARCH—

over five square miles for eighteen months, cost \$30.00; leases for four renewable terms of twenty years each can be selected from them at a cost of \$50.00, and are subject to an annual rental of \$30.00

All titles, transfers, etc., are recorded free of charge by the Department. The royalty on coal is 10 cents per long ton, and on other minerals in proportion.

The Gold District covers over three thousand square miles, and the deposits of coal iron ore, etc., are practically unlimited.

FOR INFORMATION APPLY TO—

HON. W. T. PIPES,

Commissioner of Public Works and Mines, HALIFAX, N. S.

MINUDIE COAL COMPANY, L't'd.

Operating the **MINUDIE MINES** in the Celebrated **CUMBERLAND COAL FIELD**

Producers of High Class **SCREENED COAL, ROUND, RUN-MINE, SLACK.**

The best for Foundry or Furnace, Locomotive or

Stationary Engines, for Domestic or General use

* **CLEAN AND CLINKERLESS.** *

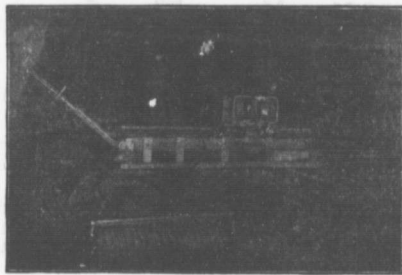
Direct connection with the I. C. R.

Colliery **RIVER HEBERT, N. S.**

Mine Manager:—HY. McCARTHER. Business Manager R. S. HIBBARD, River Hebert, N. S.
 GEO. H. BISSET Sec'y Treas Head Office, Ground Floor, Temple Building, Montreal.



Electric Coal Mining Machines.



Operating in the Mines of Carleton Coal and Coke Co.

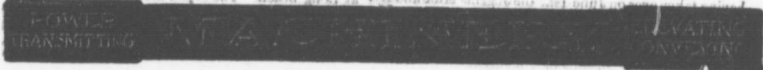
Bulletins Free.

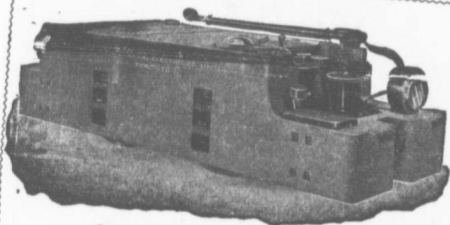
Coal Mining Machines, No. 11

Electric Locomotives, No. 10.

Complete Mine Equipment.

The **JEFFREY MANUFACTURING COMPANY, COLUMBUS, OHIO, U. S. A.**
 New York, Chicago, Boston, Pittsburgh, Denver, St. Louis, Montreal, Can.





Electric Locomotives for Mines, Electrically Driven Hoists.

Motor operated Air Compressors,
Complete Electric Installations.

—Write us your requirements—

Canada General Electric Company, Limited.,
Head Office, Toronto, Ont.

District Offices:—Montreal Halifax Ottawa, Winnipeg, Vancouver, Rossland.

WALKER BROTHERS (WIGAN,) LIMITED

Wigan, England.

Air Compressors, Ventilating Fans, Winding Engines.

Largest Air Compressors in Canada are of

Walker Brothers (Wigan) Limited, Manufacture.

The following companies have installed **WALKER BROTHERS** Air Compressors, in capacity ranging up to 6300 cubic feet of free air per minute, all of which are provided with **WALKER PATENT AIR VALVES**.

DOMINION COAL COMPANY, Ltd.

DOMINION IRON & STEEL CO., Ltd.

INTERCOLONIAL COAL MINING CO., Ltd.

NOVA SCOTIA STEEL & COAL CO., Ltd

BELMONT GOLD MINE Ltd.

CAPE BRETON, COAL IRON & RY. CO. Ltd

SOLE CANADIAN
REPRESENTATIVES

PEACOCK BROTHERS CANADA LIFE B'LG
MONTREAL, P. Q.

Important Notice.

The Maritime Coal Ry. & Power Coy., having taken over on June 1st., the Joggins Mine and Ry., and are starting at once on opening a new slope and doing large repairs. They want **ONE HUNDRED MINERS AND LABORERS AND TWENTY CARPENTERS**. Apply at Joggins or Chignecto.

The North Atlantic Collieries Co. are in consultation with experts regarding the putting down of a bore hole at Long Beach. The object aimed at is to secure a suitable location for a shaft. As numerous seams are exposed at Long Beach the necessity of a bore hole is not obvious to the uninitiated.

To the...

MARITIME MINING RECORD

Vol. 10, No. 9. Stellarton, N. S., Oct. 9th, 1907. New Series

MARITIME MINING RECORD.

The MARITIME MINING RECORD is published the second and fourth Wednesday in each month.

The RECORD is devoted to the Mining—particularly Coal Mining—Industries of the Maritime Provinces.

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

Subscription \$1.00 a year. Single Copies 6 cents.

R. DRUMMOND, PUBLISHER.

STELLARTON, N. S.

OCTOBER 9

THE "BAIRD" BATTLE.

"PRACTICAL" ON AIR SPLITS.

In reply to Mr. Baird's question in last issue I might state that the following are some of the alterations which take place in a mine when the ventilating current is split:

1. The total quantity of air entering the mine is increased.
2. The amount of rubbing surface in contact with the air is increased.
3. The area of section available for ventilation is increased.
4. The velocity of the air beyond the point of splitting is decreased.
5. There is a redistribution of quantities and pressures throughout the mine.

With regard to the first change many complications arise in trying to figure out a question on splits and the method I employed in working out the question under discussion would not apply in any case where lengths of airways exist on the outer side of the point of splitting. The question, however, does not state that there are any such conditions and we are left to our own discretion whether we assume that there are any or not. A student at an examination is supposed to stick to the question given and assume nothing. Again it is possible for conditions to exist where there may be no airways outside of the point of splitting so that we must stick to the condition named in the question. When outside airways have to be considered it will be found that the new quantity will be less than the quantity found by the formula used but it will still be greater than the quantity passing before the splits are made except in cases where splitting is carried on too much—there is a limit to useful splitting which must not be exceeded.

The second change is allowed for in the formula used. The pressure required to overcome the friction varies directly as the rubbing surface and at first glance it would appear that more pressure would be required to pass the air after the splits were made. However the

increase of rubbing surface is more than counterbalanced by the third and fourth changes. The pressure required to overcome friction varies inversely as the area of section so if we increase the area of section by splitting the air the resistance will be lessened in inverse proportion. Now if we put on three airways in place of one as is stated in the question we have an area considerably larger than we had at first, so at least some of the increased rubbing surface is counterbalanced. Now the pressure required to overcome friction varies directly as the square of the velocity so if the velocity is decreased as it certainly is in case of splits, then the resistance is decreased in a much larger proportion. Half the velocity only requires quarter the pressure and one-third the velocity only requires one-ninth of the pressure. If this is so then the extra resistance due to rubbing surface must be more than counterbalanced. With regard to the fifth change much might be said if time and space permitted. One thing is certain, the fan would circulate more air with a less water-gauge after the change was made because the resistance would be less therefore we would get more air for the same power than we had at first. However according to Mr. Baird's last calculation the quantity in the three splits would be only about 29,000 or slightly less than the original quantity. If this were so we had better stick to the single air course and leave well enough alone. Modern ventilating practices have proved that splitting air will increase the quantity entering the mine and not decrease it. With regard to the pressures being the same in each split I might ask Mr. Baird or any other mining man who has the opportunity to prove this for himself. It is an easy thing to take a pocket water gauge into a mine and find the pressure by a hole in a stopping between intake and return. What is the good of wrangling over figures when the practical proof is so easily obtained. A gauge on the branches of a main steam or water line would also prove the same thing. Why should any one take these things for granted or why should we quote from the books of learned men, or copy from text books. There is no need to use logarithms either nor to use even simple figures here is a chance to get at plain facts. I am fairly well acquainted with ventilation formulae and don't need to copy much but I never yet found these to work out in actual practice with any kind of satisfaction. Little things like these are easier to prove in the mine than on paper. Next issue I hope to hear from Mr. Baird the result of his practical tests, I myself proved the whole thing to my own satisfaction long ago, i. e., with regard to the pressures on splits, and that is why I so confidently state that the pressures are equal. When I showed the derivation of the relative quality formula I simply showed mathematically what I had already satisfied myself was true in practice. We are all apt to make mistakes sometimes and perhaps my own practical tests were not properly conducted. Let Mr. Baird

prove this to my satisfaction by tests of his own and I will be heartily glad to have my mistake rectified. I took up this discussion for the sake of information and will be glad to see the results of some practical tests published in the Record.

JEFFREY MINING MACHINES.

The Jeffrey mining machines with flame tight motors and starters shown in the accompanying illustrations were brought out almost simultaneously with the publication of the British Departmental Committee's report upon the use of electricity in mines. This report, which embodies rules for the use of electricity in mines, recommended the adoption of entirely enclosed motors and auxiliary devices, such as starters, terminals, etc. for all mines coming under General Rule No. 8 of the Coal Mines Regulation Act of 1887.

Mining machine motors of necessity have to be designed to be very compact. It is therefore necessary that every advantage be taken of space, so that the motors will not heat excessively under their regular duty. In this country where our mines are very free from gas, the open type of motor has found favor on account of its accessibility, and on account of the fact that the same

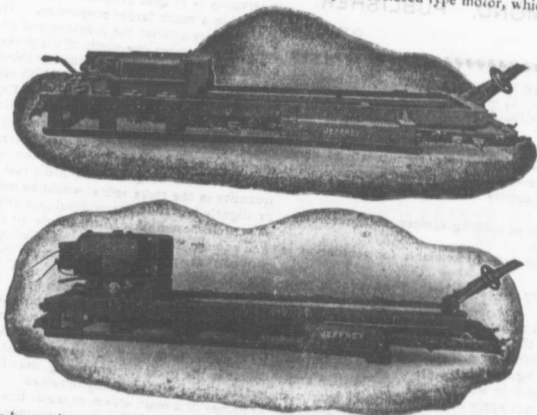
attention than in any other service known. The motors illustrated are provided with self oiling ring oiling bearings, which are so arranged that the oil hermetically seals the motor so that any gas which may accumulate about the motor cannot possibly be ignited by sparking at the brushes, or any interior trouble with the motor. Over the commutator of this motor is a plate glass door, protected by a heavy malleable iron lid. Through the opening the motor to mine gasses.

The starting switch for this motor is protected in a similar manner to the motor itself, all contacts being hermetically sealed in flame tight metal castings.

The inspector for the British Government who recently inspected these motors, pronounced them as conforming in every particular to the rules and requirements of the Departmental Committee.

An advantage of these motors is that they can be applied directly to Jeffrey mining machines with no other change than the removal of the existing open type motors. They are wound for standard voltages of 220, 250, and 300 volts, and may be wound special for other voltages where requirements demand it.

Attempts have been made by manufacturers of coal cutting machines, other than the Jeffrey Mfg. Co'y. to develop an enclosed type motor, which motor would not



motor capacity can be put into smaller space in the open type than in the enclosed type. By careful designing, however, the Jeffrey Mfg. Company have been able to put upon their mining machines motors of the enclosed type which are of equal capacity to those of the enclosed type formerly used, and the enclosed motors occupy practically no more space than those of the open type.

The Jeffrey 21—A mining machine motor, which is typical of other mining machine motors made by this company, is a modern motor in every respect. The armature is drum wound with machine formed coils. The poles are of laminated sheet steel, and the windings of both the armature and field coils are insulated in the most approved manner for mining machine service. This service, by the way, is probably the most severe of any service which electric motors are called upon to perform. The insulation has to withstand both oil and moisture, as well as heat and infinitely more dirt and less

only conform to the rules and requirements of the English government, but would at the same time be an efficient motor and one so designed as to reduce to the lowest possible point the expense of keep up, but up to this time no such motor has been put upon the market by any builder save the Jeffrey Mfg. Company. This company has not only brought out the 21—A motor for what is commonly designated as the standard type of chain breast machine, but they have also brought out the 27-A motor, which is a motor of the enclosed type conforming strictly to the mining laws, which is adaptable to low or high speed machines. The demand for such machines is increasing, and since the motors have been very extensively equipped with same were put on the market the largest coal companies not only in Great Britain, but in the English Colonies where the rules of the Home Government are effective.

Figure 1 shows the 24-A coal cutter equipped with enclosed type motor, and figure 2 shows the 27-A coal cutter which is a low vein machine equipped with enclosed motor.

COALS OF THE COW BAY BASIN.

—BY THE EDITOR.—

I have heard it said that the Dominion Coal Co. abandoned the colliery at Port Morien because it had come to the conclusion that there was no body of coal there. Of course I have also heard a second reason, namely, that the coal was more expensive to work than in the Glace Bay collieries, and likewise a third reason that the coal was not equal in quality to that of Glace Bay. If the company abandoned the district for either the first or the third named reasons, I am inclined to the opinion that it acted on insufficient information. Some of us are not inclined to accept unhesitatingly the opinion of geologists as to the limited extent of the basin, nor the opinion of even so eminent an authority as the late Richard Brown as to the commercial value of the field. Mr. Brown says that the Blockhouse seam is the best in the series and that not more than 200 acres of it are available for mining purposes. After an exhaustive investigation the North Atlantic Collieries, Ltd. have acquired the Blockhouse seam to seaward and they intend to follow it and make it available for the purposes of the company. Indeed it may be said that all the areas of the company are submarine. The President of the company who has taken a hearty and intelligent interest in searching for information in reference to the field has not the slightest hesitation in asserting that his company owns one of the finest properties in Cape Breton. The first step in the evolution of the North Atlantic Collieries was taken on a street in Halifax on a day some three or four years ago when the present prime mover in the formation of the company was stopped by a gentleman who put the question: "Are you one of those who hold that the Dominion Coal Co. possesses all the coal areas in the South side of Cape Breton County worth speaking about; if so I may show how much mistaken you are". Admitted that the North Atlantic Collieries have a splendid proposition in the Cow Bay district if they think they may have the cream of it, they may be as much mistaken as those who thought the Dominion Coal Co. had it all. There are some decidedly of opinion—the veteran explorers Nevilles and Pendergast in the number—that the areas owned by Mr. J. R. Cowans, or by the Cumberland Ry. & Coal Co. some four miles in a westerly direction from the old Blockhouse mines, constitute a property whose value cannot be overestimated. I make no estimate of the extent of the areas underlain by coal seams, nor of the probable large quantity contained therein. I am content to state that many coal seams are on the property, and that the coal is of a surprisingly superior quality. During recent years much exploratory work has been done on the areas, and the results have been most gratifying to the holders. There is a wide divergence of opinion among authorities as to the names that should be given the different seams. The Spencer

may be the equivalent of the Phelan at Glace Bay, as some think, or the equivalent of some other in that district. That is neither here nor there for my present purpose. The chief point is: "Is the coal in the Spencer, so named, equal in quality to that of the Phelan"? Recent analysis show that it is, which bears out the impression I formed of its quality on descending three trial pits recently and examining the structure of the coal. Three openings have been made on this so called Spencer, seam on the Cowans areas, the most recent of the three being a small shaft twenty-five feet or so deep. At this depth a fine firm roof was obtained. The seam is ten or eleven feet thick but allowing for two feet of top coal to be left on there is eight feet of excellent looking coal with a band of fire clay a half to an inch thick dividing the seam in two and thus making it possible to work the coal advantageously by fall and bench. An analysis of the coal from this seam taken on the 25th. Sept. by the Provincial Analyst, Mr. A. L. McCallum gives the following satisfactory results:

Moisture.....	3.08
Vol. Matter.....	39.25
Fixed Carbon.....	52.96
Ash.....	4.11
Sulphur.....	2.27
Calorific Power B. T. U.....	13.411
Evaporative power in lbs. of water at 100° c.....	14.27
Color of ash, Red.	

This seam has been traced on the property for say three quarters of a mile, not traced merely on the surface, but by trial pits. Below this seam about one hundred and fifty feet roughly speaking, is another seam, to which some give the name of the Long Beach seam, but as already stated. I take no responsibility for names, where high authority is resolutely divided. The pit on this seam is not deep and therefore nearly on the edge of the outcrop. The coal, notwithstanding, gives indication of being of high value. Of course being so near the crop the coal is not quite solid. The height is five feet, or a little over, indeed it is called by the explorers a six foot seam, but with a desire to be as accurate as possible I take the lesser height. The analysis of coal from this seam, the sample having for a time been exposed to the weather, is as follows:

Moisture.....	3.10
Volatile matter.....	39.75
Fixed Carbon.....	51.94
Ash.....	5.21
Sulphur.....	2.82
Calorific Power B. T. U.....	13.246
Evaporative power in lbs. of water at 100° c.....	13.71
Color of ash, red.	

At a distance of less than two hundred feet below this seam is another. There is four or five ft. thickness of coal in this seam, but, at the crop it is divided by a heavy band of clay, some four feet thick. The upper portion of the coal—2 feet, is dull looking—the lower portion, two and a half feet or so, is bright and clean. If this be considered as two seams there is the possibility of their coming together to the deep.

The fourth pit visited was sunk on what they are pleased to call the Lorway seam. The Lorway

thirty odd years ago was worked at Reserve. If the seam underlies the Dominion Coal Co's areas, if the coal is as good and as thick as at the Port Morien back lands, then the big company has a seam of coal that will come in handy when the Phelan becomes exhausted. In a shallow pit, at a point not far from the crop the seam is as bright and pure a piece of coal as one could wish for. It is not often that one comes across so excellent an analysis of crop coal as the following, made on the 24th. September by Mr. McCallum:—

Moisture.....	3.65
Volatile Matter.....	39.25
Fixed Carbon.....	55.46
Ash.....	2.04
Sulphur.....	0.79
Calorific Power B. T. U.....	13779
Evaporative power in lbs. of water at 100° c.....	14.77

Color of ash, nearly white.

This analysis shows this coal to be extraordinarily low in both ash and sulphur, and therefore suitable for almost any purpose.

About three hundred feet below this seam there is one of about two feet six, and fifty feet again under that one another of about equal thickness. I had no opportunity of viewing the coal in these years ago were filled in. Mr. Nevilles who had this district is of opinion that these two seams have only fifty feet of strata between them may come together to the deep. That is possible. There are two instances given in C.B. county where seams divided near the crop by several feet of strata came together to the deep. Old Bridgeport mine is cited as a case in point. Nor does the seams given above cover all that may be traced on the Cowans areas at Port Morien. Under this split seam, which, by the way, Mr. Nevilles declares is a continuation of the Mullins, and under the conglomerate, which is some five hundred feet below the Mullins, another seam was struck, but the thickness and the quality of the coal could not be determined owing to the inflow of water, and the prospectors having no sufficient inducement to continue the work, as the seams were not on the property of the parties for whom they were working. While the seams referred to above are as stated, four miles from the shore they can be traced all of that distance. Exposures have been made at Long Beach of the six and eight foot seams. At this point the angle is very high. The opinion is, and it is borne out by the trial pits, that the seams flatten the further west they go. The Cowans property is considered by those who ought to know to be a most valuable property. It is to be hoped that the development of so fine areas will not long be delayed.

The work of opening up a colliery in the Victoria section of the Dom. Coal Co's property is now on in earnest. The new colliery will be called the Victoria, its official number being 12. The slope will be on what is known as the Victoria seam. The coal from this seam has a high reputation as a domestic and as a steam coal. The product therefore may be sold exclusively for household purposes, and for bunkering steamers. The colliery will come into line as a producer next spring. The management anticipate that it will be a producer to the extent of 10,000 tons a month by next July.

- Rubs by Rambler.

The 'Workingman's paradise.' That is what New Zealand has been called for many years. And so it was—in a sense. If it is paradise to workmen to have it 'pretty much' all their own way, then certainly New Zealand was paradise. And yet, and yet, I do not know if it would be paradise after all to very many of us if we had all our own way. Sooner or later we would make a mull of it, put our foot into it, and perhaps wish it wasn't quite so. If the workmen of New Zealand thought they had the best strike preventive in the world, it is no great wonder. The much lauded arbitration act was all one sided. It compelled the employers to accede to the award, under forfeiture of their goods and chattels; to pay like respect to the award of the arbitrators, that is where the workmen had no visible assets. At least it was understood until recently that the workmen without property could not be compelled to comply with the findings of the Board if act was a one sided affair; it was compulsory when applied to the employers, non compulsory on the employed. But there has recently been a change. The law is now read differently. After repeated instances in which the employees laughed to scorn the adverse decision of the Boards, a suit was instituted against parties inclined to be contumacious. The magistrate decided if the men could not or would not pay the penalty provided in cases of non compliance that they must go to prison. This was something unheard of, so the case was appealed. On appeal to the higher court the decision of the magistrate was annulled. Further appeal was taken and now the court of final appeal has pronounced in favor of the magistrate, who declares, as stated, that if men will not abide by the decision of the arbitrators they must pay the penalty by money payment or by imprisonment. In short the judgement of the final court of appeal of New Zealand is that strikes are illegal. And had we in Nova Scotia just a little more foresight and a little more sand—especially sand—strikes would have been illegal with us over seventeen years ago. We had in effect the necessary machinery to make them so.

And right here I might ask the Halifax dailies who have lauded the advanced legislation of New Zealand most enthusiastically to take particular notice that that country's arbitration law is only now where the Nova Scotia Act was seventeen years ago. I say was seventeen years ago, for the N. S. Act as it is to-day is not the same when introduced and passed by Mr. Fielding. Some politicians, not in the true interests of the workmen, had the fourteen days wages penalty for non compliance with an award reduced to three dollars—indeed one politician suggested a dollar penalty but that was so great a reflection on the present finance minister's sagacity that it was vetoed. Our Act is as ineffective to-day as the New Zealand Act was, while the New Zealand is only to-day as effective as the N. S. Act was in

1880 Had the Fielding Act been made a little more compulsory instead of a little less; had it plainly intimated that neither masters or men shall cause stoppage of work, but instead shall arbitrate we would have had a better law than the Lemieux, and we would not probably have had the present strike at Springhill. In my opinion neither masters or men should have the privilege of saying "We will give in only when beaten." Whichever side is in the wrong should be compelled to give in at once. If strikes are to be abolished and lockouts there must be compulsory arbitration and compulsory obedience. Of course if combatants can show that the dispute does not and shall not affect the public in any way, that none will be sufferers but the direct disputants, then I say let them fight it out till both sides are black in the face. When other than the immediate disputants are affected the government should say: "This difference must be arranged quietly and speedily by arbitration."

A leading member of Pioneer the other day told the Sydney Record that in his opinion the Provincial Arbitration Act was better than the Lemieux Act. I am of a similar opinion. Our act is a king to the Lemieux.

The chief objection urged by the Grand Sec'y. of the P. W. A. against the Lemieux Act was, if I mistake not, that the decision rested in the hands of one man—the chairman of the Board. This view is largely correct. There are it is true three arbitrators but one appears, as advocate, so to speak, for the employers, the second in a similar capacity for the employed, while the third or chairman declares which side has presented the strongest case. A Board of three thus constituted can scarcely be a perfect tribunal and in proof I adduce the fact that however impartial a judge of the supreme court may be, and however wise he may be considered, there is always appeal to the full bench, that is, to a court where a number of judges sit and decide. The decisions of Boards of Arbitration are held to be final, therefore the Board should be composed of men, if possible, without leanings, or composed so that it may contain a majority of men without pronounced bias. If this is a correct view then there can be no doubt as to the superiority of the mode of appointing the provincial Board as compared with that adopted in the Federal Act. According to the Provincial Act there are two members of the Board beside the chairman in a position to give independent and unbiased judgement. As I am under the impression that our local Act is not so well understood as it should be I will give a few of the leading clauses:—

Sec. 3—"When any dispute arises between the employer and a majority of the employed, or the majority of any division, in respect to wages, the employed shall not strike or abandon work, and the employer shall not reduce the wages, dismiss or lock out the employed or any division, if the employer or a majority of the employed, or the majority of any division, makes complaint in regard to the matter causing such dispute in writing to the commissioner until such matter is fully determined as in this chapter provided."

Sec. 5—"The commissioner upon the receipt of such certificate, or upon receipt of complaint from

the employer, may summon the agent of the employed, or of the division, or of the employer making such complaint to appear before him and adduce evidence in support of such complaint, and upon such evidence the commissioner shall determine whether such matter of dispute should be referred to arbitration or not."

Sec. 6—"If the commissioner determines that the matter complained of should be submitted to arbitration, he shall forthwith make an order referring such matter to the Board; if he determines otherwise such matter shall be deemed to be finally determined against the party who made the complaint."

Sec. 7—"When an employer and a majority of the employed, or of any division apply jointly in writing to the commissioner to settle any such dispute by arbitration the commissioner shall forthwith refer the matter to the Board."

Sec. 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.

(2) "If such agents or either of them do not within five days after notice from the commissioner of the reference to the Board of the matter of dispute, or if such persons so appointed do not within five days after their appointment make the appointment required by this section to be made by them, any such appointment may be made by a judge of the supreme court on application of the commissioner."

Sec. 22—"The employer on receiving notice that an arbitration has been granted may withhold the wages of the employed or division to whom arbitration has been granted for the fourteen days preceding the appointment of the last of such arbitrators, and shall pay into some chartered bank in this province to the credit of the commissioner a sum of money equal to DOUBLE the amount of such wages."

Sec. 23—"If the Board decides against the employer he shall be bound thereby, and if he does not submit at once to the award, the sum paid into the chartered bank to the credit of the commissioner, shall be forfeited by the employer, and shall, after first deducting the costs of the arbitration, be paid to the agent of the employed or division, for the use and benefit of the employed or division in proportion to their respective rate of wages."

Sec. 24—"If the Board decides against the employed, or against the division, and the employed or any division to whom arbitration has been granted does not at once submit to the award the amount of wages of the employed or the division paid into the chartered bank shall be forfeited by the employer or by the division, and shall be paid to the agent of the employer, for his use and benefit by the commissioner, after first deducting the costs of the arbitration."

Sec. 31—"There shall be an appeal from any award to the supreme court 'in banco,'"

From the foregoing it will be seen that the objection to the Lemieux Board namely that one man virtually decides, does not apply to the Provincial Board. There are two arbitrators inde-

pendent of those appointed by the employer and employed. Of course there might even be some objection to the appointments by the Governor-in-Council. Politics these days, sad to say, permeate almost everything and it is just possible that 'politics' might influence the governor-in-council in his appointments. To obviate that, to have a wholly independent board, it might be well that the Premier of the Province and the Leader of the local opposition should meet together and after having been first duly sworn proceed to select all party considerations.

We are probably wiser from experience and observation than in 1890, and it may be that our Provincial Arbitration Act, the pioneer of all such acts in English speaking countries, could be on one or two points amended. Since 1890 there have been strikes or lock outs over other matters than wages. Section 3 could readily be amended to meet such cases. Instead of confining the arbitration to disputes 'in respect to wages' it could be extended to disputes 'in respect to any matter' or any serious matter. There may be some difference of opinion with regard to Section 6. It may be held that to allow the commissioner power to say there shall not be an arbitration is rather drastic. Still I am in favor of the clause as it stands, as I scarcely think the commissioner should refuse arbitration if he judged or surmised that such refusal would eventually lead to a strike. The section is intended solely to prevent the request for arbitration on trivial matters. The success of any arbitration act depends very largely, indeed almost wholly I might say, on the constitution of the Board. If the members of the Board are not thoroughly honest, reliable, independent, unbiased, fearless and intelligent, arbitration can never succeed as a means of finally averting strikes and determining disputes. How to get a Board composed of such men is the difficulty. Though it is contrary to all precedent I would exclude an employer's man or an employee's man from the Board on the ground that the advocate of one side or of the other side, or in short of either side cannot well be at the same time a judge or a member of the jury. Of course the men and masters would be permitted to appear before the Board and by themselves or their solicitors present fully their several views. If I have doubts as to the wisdom of allowing the governor-in-council to appoint two members, then I would have greater objection to his appointing four. Certainly. How then would they be appointed? That is a difficult point. One way out might be to allow the governor-in-council to name the chairman, and the premier and the leader of the opposition to name the four members. This would free the Board from any charge of partisanship. And what has partisanship to do with the settlement of trades disputes? Perhaps more than many imagine. Take this Asiatic immigration for instance. Is not the fear, and the pity of it, that it may become a party question, and that efforts on one side or the other or both will be not to bring about a settlement that will be the wisest, but one that will catch the largest number of votes. A word in reference to Section 22. The employer is not now permitted to retain fourteen days wages to be placed in a bank as somewhat of a guarantee that the decision will be complied with;

an over zealous legislator tried to get the law amended so that only a dollar per man could be retained. This was rejected and a compromise at three dollars per man substituted for fourteen days wages. The Act was far better as it originally passed. A workman would laugh at a three dollar fine, and an employer might consider it far better to forfeit three to five thousand dollars than comply with the decision of the arbitrators. All arbitration is farcical unless the losing side is made to abide by the award.

"In its cry for coal miners for Nova Scotia, how does the Mining Record propose to get over or corporation who brings into Canada any alien to perform labor or service of any kind in Canada or who knowingly assists or encourages or solicits the importation of any alien, is liable to a fine not exceeding one thousand dollars and not less than fifty dollars."

After reading the above I asked quietly of myself, "What's the game?" and wondered if it was question or was there something behind. I put the thought from me as ungenerous. I am aware that an editor, in the necessarily hurried reading of his contemporaries, at times jumps to conclusions and puts constructions on words not warranted by the text. This must be an instance in point. The Mining Record has uttered no cry for miners for Nova Scotia. It has, however, cried out for mine laborers, which, as the editor of the Chronicle knows, is a very different thing. In issue of 25th. Sept.—the Record's latest reference to the short supply of labor,—I read on page 12, second line of article headed 'The Labor Problem' "It is possible there is a sufficiency of skilled labor, but the collieries of the Province are sadly handicapped owing to a scarcity of COMMON LABOR. The cry at the mines is for LOADERS." And all through the article the references are to 'unskilled' labor. In 'Ramblers' scheme the word 'miners' does not once occur. No reference is made to scarcity of 'miners' but to scarcity of 'labor.' A sentence from 'Ramblers' article reads: "Due to scarcity of labor the Dominion Coal Co. is producing 14,000 tons a day, whereas if the collieries were full manned, the production should be 16,000." I admit that some, unfamiliar with mining conditions, might think miners might be referred to, as well as laborers, but everybody knows or should know, that the Dominion Coal Co. is continually sending agents to Newfoundland, and frequently agents to European ports, to make it known that the company is short of labor. Coal miners do not come from Newfoundland, nor from Northern or Southern Italy. The Drummond colliery in Pietou Co., suffers from the lack of loaders. Common labor is scarce on the mainland as well as on the Island. The Record does not 'cry' for laborers for the Nova Scotia mines in the interests of the operators alone, but in the interests of the coal trade of the other province. The miners, in very many cases, are as anxious for laborers—loaders—as are the operators. While a scarcity of loaders means lessened output to the operators, it means also much less pay, or much disagreeable word—to the miners.

As a rule miners dislike very much to load the coal they mine. For these reasons the Record 'eries' for the government's assistance in the matter. In assisting to procure men it will be helping the miners as well as the operators. Alien labor law or no Alien labor law, the governments of Ontario and British Columbia, in many ways, seek to entice from other lands the kind of settlers their provinces requires. Why should not the government of N. S. do a like thing for this province?

I read somewhere, the other day—was it in the Eastern Chronicle—the following sentence: "The coal miners of Great Britain and the United States know the conditions and wages of coal miners in Nova Scotia and if these conditions were better than in their own country they would come quite as readily for the coal companies as for the government." Possibly; if it is a fact that they know about conditions. What is that we read in the papers some ten days ago? Wasn't it something about Keir Hardie? Oh yes. Keir Hardie had got hold of a circular of the Dom. Coal Co. dated from 'Sydney', and immediately sent a letter to the press warning men against going there as conditions in New South Wales were not what the circular pictured them to be. Now if a notorious leader like Keir Hardie is unaware that Sydney, C. B. and Sydney, N. S. W. stand for distinctly different and distant places on the globe, is it likely that the rank and file are more fully informed. As for the U. S. miners we would rather be without them if the late declaration of a leading U. S. operator is correct, to wit, that in Pa. there are now few English speaking or American coal miners; their places have been filled with Poles and Huns.

Says the Montreal Star in its financial columns: Mr. Drummond is apparently unaware of the fact that the Sydney correspondent and the financial editor of the Star are one and the same." That is a fact; who would have thought it? The fact is surely corroborative of the axiom that "evil communications corrupt good manners." Sydney atmosphere must surely have a relaxing influence. Of course there is excuse. In a desire to be fair I admit that the Steel Co. have in Mr. Plummer, Mr. Jones and perhaps one or two others, a smooth speaking, unctuous, combination which the Coal company cannot match. In his speech the former is as wise as a serpent, while Mr. Jones has the genius of making his company's actions appear as harmless as doves. Mr. Plummer knows just how to talk in season, and Mr. Jones both in and out of season, so, no wonder that so far as speech goes, the coal directors are out-classed, and no wonder that some, while under the influence of the steel management, are carried away.

The Star's financial editor thinks Mr. Drummond is not fair to Judge Longley and says "The Judge gave a positive and lucid ruling on the stone and shale matter." Well, he gave a positive ruling without doubt. He found that the coal was not reasonably free from stone and shale, and that finding purports to be founded on the evidence. I have no doubt the financial editor desires to be fair, therefore I may ask him to produce the evidence the Judge relies upon. Bear

in mind that the coal which the Steel company took delivery of is not to be considered, for the reason that the Coal company only declared the contract violated when the Steel Coy. returned the 153 cars of coal. Not the coal in the Steel Co's dump, therefore, but the coal in the 153 cars is the coal that has to be adjudicated upon. Where is the 'weight' of evidence that this rejected coal was not reasonably free from stone and shale. If I am not in error the Steel Co'y produced a witness, Mr. Scott, to prove inferior quality, but did he not confess, if I am not again in error, that he had not examined all the cars, but had sent a man to look over the remainder? If this be so, then Mr. Scott's examination was as superficial as what Judge Longley hinted Mr. Wanklyn's was. As the whole case, in my opinion, hinges on the quality of the coal in the 153 cars, the Star can do service to the public by publishing the evidence given by both sides as to its quality. This evidence should not occupy much space. The Judge, it is true, held that the coal in the Steel Co'y's dump should be considered, and expressed surprise that the Coal Co'y had given no evidence in reference to that. But why should the Coal company do that? The break between the two companies did not actually occur until the 153 cars were sent back. Then came the climax. 'Communings' before the real contract was signed were excluded as evidence by the Judge. Why then should not the coal in the dump, coal received before the 'erisis' not also be held as 'communings' and be excluded as evidence in determining the quality of the coal actually rejected. The action of the Steel Coy. in sending back the 153 cars was that on which hostilities were declared. Therefore the whole case hinges on the point, 'Was the Steel Coy. justified in sending back the 153 cars; was the coal not reasonably free from stone and shale. The Judge says the evidence is that it was not. Let us have that evidence.

The saying "The tape always tells the story," in need of prompt and drastic revision. It utterly failed in the case of Steel. The very favorable decision of Judge Longley had not the slightest impression on the tape, neither had the emphatic assertion of Mr. Jones that he was buying every share of steel he could find cash for nor yet the most optimistic report of Mr. Plummer. Instead of telling a good story, the tape sulked or fumed. The only story it told was of the kind unlooked for. It is beginning to be accepted as a truism down this way that the Montreal Stock Market goes by contraries. In the face of what is good news it declines; when the news is bearish it more than holds its own. The reason given for Steel's decline while coal went up, namely that the Coal crowd were selling Steel and supporting Coal seems plausible, but who is after Nova Scotia Steel that it should have declined to 64. At that price the stock yields over 9% on the purchase, and as there is not the least probability of the dividend being passed for a long time to come, it seems strange indeed that it should be held in so little esteem, apparently, by investors. No iron or steel company in the Dominion is so favorably situated as 'Scotia'. It has its own coal supply, its own iron ore, and it is capitalized for a ridiculously small amount of its great resources,—its remarkable output, and its most economical and efficient

ent management all taken into account. Those in anyway familiar with mining know that development work is generally counted 'dead' work, that is work that may fall to be charged to capital account. In the development work being done at Belle Isle, the Nova Scotia Steel Co. is actually making a profit. And if the outcome of this work turns out as hoped for, 'Scotia' will have an asset which should provide big dividends for years to come.

What price did the farmers in Cumberland, Cape Breton, Pictou, Inverness, and, indeed, all of the other counties of the province receive for the general products of the farm, say, ten years ago. How are the prices of the products of the field, the dairy, the hennery, and the market garden out of all proportion higher than they were at that time? Is the increase in price not largely due to the great prosperity of the coal mining industry of the province, and to the springing up and expansion of industries dependent for their springs of action on that mineral? Where, in all the province, are the prices of the products of the farm highest? In those parts of it where mining is most actively being carried on. In Cape Breton butter is thirty cents a pound, and potatoes as high, in some cases, as a dollar and a half a bushel. Before the present briskness in coal mining the products of the farm were a drag on the market, and hence farmers went either into debt, in very many cases, or gave up the business. Had the prices ruling to-day been obtainable twenty years ago there would be fewer vacant farms at the present time. It may not be an exaggeration to say that the prosperity of a sixth part of the population of the province depends largely upon the prosperity of the coal trade. If this be nearly a correct assertion, then it is clear that farming cannot be profitable unless mining is prosperous. Nova Scotia, as a farming country, cannot produce in competition with some of the other provinces; with P. E. I. for instance in Oats and Potatoes; with Quebec in Hay, and with the West in Wheat. In short language, the market for the products of Nova Scotia's farms cannot be had abroad to profit, it must be found at home. What success will attend the encouragement of farming if wise encouragement to mining is neglected. Any set back to mining, from whatever cause, a lack of laborers it may be, is very apt, nay certain, to result in unprofitable farming. It is well to make an effort to have all the vacant farms occupied, is it not, at the same time well that the industry, which does more than aught else in this province to secure a market for the tiller of the soil, should have a sufficient supply of that which at present stands in need of. I certainly think it should. What if some differ in opinion? Does it not always almost wholly depend upon the point of

Premier Murray speaking at Shelburne the other day gave token that he is alive to the exigencies of the province in regard to a labor supply. Though there are many vacant farms the premier did not admit that the fact was greatly retarding prosperity. In spite of these vacant farms he was able to declare that times were highly prosperous, for instance he said "Happily at the

present moment there never was a period in the history of the province when, take it all in all, there was greater individual prosperity among our people." And he gives first place, as contributory to this prosperity, coal mining. "Our output of coal has gone up by leaps and bounds. Our mines have been taxed to the utmost to meet the demands. You must remember that we have the only coal East of the Rockies," and then he refers to the steel industry which could not be carried on in the province without coal. He recognizes that if the province is to grow in proportion to her resources we must have more men. Here is what he said on that point: "It is my opinion at the present moment that there is scarcely a town or county in the province where a fair number of the right kind of people could not find remunerative employment and there is scarcely an industrial concern in this province which can hope for any great expansion until they are able to draw upon a larger field of labor." In making this statement I firmly believe that Mr. Murray forgot all about an Alien Labor Law. I would like to know just how he is going to get over that, let me be asked the question by any one in the search for information Mr. Murray proposes to ask the co-operation of town councils, etc. etc. for the purpose as he says, "to see if between us something cannot be done to have the advantages of this province better known to the man of the right stamp." Mr. Murray evidently realizes the disadvantage Nova Scotia labors under through the ignorance of people in other lands as to conditions here. Mr. Murray expressed the opinion that as a people we are not very industrious. That is so. He also hinted that we were not too economical. That is so too, economy with many is an unknown science.

There are some, probably, who think that this frequent mention of the much time lost, by the workmen at the collieries, is made to cover the short comings of the management or of the machinery, at the mine, or for some such purpose. Not at all; the off time evil is a serious one for which there seems to be no ready cure. The evil is a real one and prevails at all the collieries. Let me give a couple of instances of 'off work' which came under my notice within the past ten days. Having myself the idea that the managers of the mines might be exaggerating, just a little, the number and frequency of off days, I asked permission to have a glance at the daily output sheet. This was kindly complied with, and this is what I found. On the Monday after pay day the output was 8600 tons against an output of 13,000 to 14,000 tons on days previous to pay days. Here was a loss or between 30 and 40 per cent. in output and this was not the case only on some one particular Monday after pay but was what happened as a rule. At a colliery in Pictou Co. where the number of producers is say 200, there were off work on Tuesday, 1st. Oct. the day after pay day, 70 men or thirty five per cent. of the total producing force. I ask have these figures not the tendency to make managers swear. It is a great pity that workmen are not earnestly putting forth efforts to make hay while the sun shines.

The editor of the Eastern Couricicle, who stood by the miners on an occasion when his good offices counted for much makes the following suggestion to the mechanics of Springhill:—"It appears that the government is called upon to take charge of the mine and keep it free from water. We hope the men will make no objection to that. The property is their own as much as it is that of the government; more, for the government is only acting for the people in general throughout the province as the lat-

Continued on page 20.

AROUND THE COLLIERIES.

On the 25th. ult. the Dominion Coal Coy. from its several pits hoisted the large quantity of over 15,000 tons of coal.

As the pic-nic season is over the mine managers look for an increased output from this out. It is the belief that the men will now settle down to work until the Christmas season comes round.

There has of late been a considerable increase in the ventilating current in the Allan Shafts. Whether by 'splitting' or otherwise, the volume of air, with the fan running at the same speed, was increased by 7000 feet per minute.

Mr. J. W. Revere, of the Dominion Coal Co. bought the other day in New York a car or two of copper at 16c. per lb. The price paid by the Company a year or so ago was 24cts. per lb. The decline in copper means several thousand dollars in the pocket of the Coal Co.

The foundation for an additional battery of Sterling boilers is being laid at the Allan Shafts. There are already four batteries, two of 250 H. P. and two of 316. The new boilers will be of the larger H. P. It is intended to add a six battery after a time, which will give a total boiler capacity of 1764 H. P.

The cry at the Allan Shafts is for more men. It is not likely that the most desirable class of workmen will be attracted. By desirable is meant those likely to become permanent, in opposition to migratory, as there are no houses to be had. A number of good men could lately have been procured, but as they had families they could not accept employment.

Though the distance on the surface between the No. 1 and No. 2 Allan Shafts is about two hundred yards, the tunnel being driven to connect the shafts will be about three hundred yards long. The tunnel while being driven through is also being driven up as the southerly shaft is considerably to the 'rise' of the northerly. It may take six weeks or two months yet before the connection is completed.

Referring to the progress being made at the Allan Shafts, a Post correspondent, presumably Mr. Barrington of the Engineer's Examining Board, says:—"The development work underground is advancing as fast as possible; a large number of leading places are going double shift, machines are working very satisfactory, and the coal is of excellent quality, and shows every indication of lying at a very easy angle the further it approaches to the rise. In the very future all balances will be used instead of chutes. At the present time balances are working successfully and the air courses are being enlarged and retimbered. Everything is going as satisfactory as can be expected owing to the magnitude of the work, which will be some day in the near future the largest coal producer on the mainland, if not in the whole province of Nova Scotia. The towns of Stellarton and New Glasgow will, from the result of this great mining centre, along with its steel and manufacturing concerns and railway facilities, some day sail under the banner of one great coal and iron city."

A young man named Atkins, by the moving of the boom of a derrick, was knocked off the Allan shaft bank head last Tuesday and killed.

The Dominion Coal Co. expect to have a big output this month, much larger than in September. Though there is no bank to drain from shipments of 350,000 tons are looked for.

The New Victoria mine or No. 12, of the Dom. Coal Co. will be connected by a branch $\frac{1}{4}$ miles long with the company's main line. The connection will be made at Grand Lake.

The Springhill strike is causing the I. C. R. to pay high for their coal. For instance, a steamer cargo was sent to Lewis. The railway had to haul half of the cargo back to Campbellton, a distance of 300 miles.

Mr. Norman McKenzie of Dom. No. 2 has been appointed assistant to Mr. Fergie. Messrs Christanson and McKenzie will in future carry the title of superintendents of mines, each of them reporting to Mr. Fergie. Changes are lightsome.

The Town Council of Sydney have no mean opinion of the Dominion Coal Co. else it would not have appointed a committee to wait upon the big Coal company in an effort to secure coal for the people at a lower rate. In all other countries coal is advancing in price. With the exception possibly of some parts of the U. S. coal is cheaper in Nova Scotia than in any other country. The domestic consumers in Britain are paying over five dollars a ton for coal, and consumers large and small in Germany, Sweden, Italy etc. cannot get it even at that price. We have been told that dear coal hinders expansion of trade. We are told that the country which at this time shows larger expansion than any other is Germany and yet the Germans are to-day importing coal to help them along which costs landed nearly twice as much as manufacturers pay in Nova Scotia. The export price of coal f. o. b. Middlesborough, quoted last Thursday was 16/ or \$3.84 per ton. The lowest quoted price at present for steam coal in Britain is \$3.36. The average increase in the price of domestic and steam coals in September '07 over September '06 is about \$1.25 per ton. There has been no increase during that time in Nova Scotia to the domestic consumer and yet we are not grateful.

The North Atlantic Collieries Co'y., which took over the Gowrie & Blockhouse Co's. areas and plant on the 27th. of July last, and has since been putting the colliery in working order, commenced last week to make a beginning with four pairs of men, 78 tons of coal per day was sent out. In ten days or less additional boiler power will be available. After that the output will be 100 tons daily, to be gradually increased till it reaches 500 tons. The new manager thinks he may be able to attain that quantity by July '08. If he succeeds it will be a feather in his cap, as the haul underground is long, and the coal at times hard to mine.

CURTIS'S & HARVEY, LTD.

Manufacturers of all Descriptions of

...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.

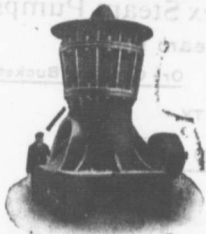
Bobbinite, Curtisite, Excellite, Kolax, Rippite, &c., &c.

CURTIS'S & HARVEY, LTD. HEAD OFFICE
3 Gracechurch St. London, E.C.

AGENTS FOR NOVA SCOTIA

AUSTEN BROS. HALIFAX.

HADFIELD'S STEEL Foundry Co., Limited. SHEFFIELD



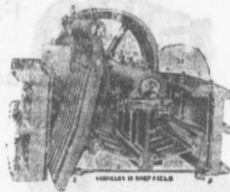
PERFECT GYRATORY
STONE CRUSHER.



CAST STEEL
BRONZE BUSHED.
SELF OILING

WHEELS & AXLES

WE MANUFACTURE
CRUSHING ROLLS,
ELEVATORS,
and Gold Mining Requirs ite



HADFIELD'S PATENT

JAW CRUSHER

(Solid Steel Construction.)

The Parts that are subject to Excessive Wear are made of
Hadfield's Patent 'Era' Manganese Steel and other Patented
STEELS.

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

PEACOCK BROTHERS, Canada Li e Building, MONTREAL.

CHAINS. CHAINS.

(All Sizes in Stock.)

"EDGES" BEST SPECIAL CRANE CHAINS.

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

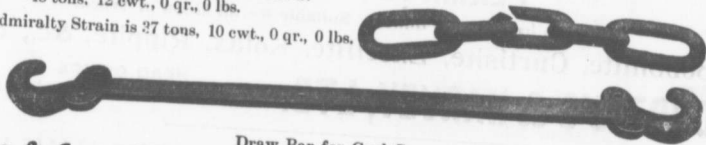
Makers of every Description of Chains
for Mining and all Engineering Purposes,

Coupling Chains and Solid Forged Draw Bars

For Mine Cars, A SPECIALTY.

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

The Admiralty Strain is 37 tons, 10 cwt., 0 qr., 0 lbs.

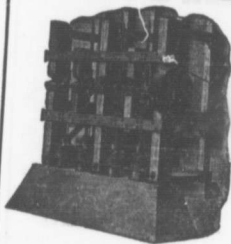


Edge & Sons, Limited,
SHIFNAL, Eng:and.

Draw Bar for Coal Car.

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

Mining and Milling Machinery



Fairbanks-Morse Duplex Steam Pumps

Gas, Gasoline or Steam Hoists

Gasoline Air Compressors, Ore Cars and Buckets

FOR ANY DUTY.

Nissen Stamp Mills

Better Savings and Fewer Slimes

Half the Power

Greater Capacity per Horse Power.

Emerson Pulsometer-Type Steam Pumps for Mine Sinking

Will work under 150 feet head.

Will work on air in the suction.

Will prime itself.

Will pump dirty, gritty water. No adjustments; extremely simple

The Canadian Fairbanks Co., Ltd.
Montreal, Toronto, Winnipeg, Vancouver.



**Synopsis of Canadian North-West.
Homestead Regulations.**

ANY even numbered section of Dominion Lands in Manitoba or the North-West Provinces, excepting 5 and 26, not reserved, may be homesteaded by any person the sole head of a family, or male over 18 years of age, to the extent of one quarter section, of 60 acres, more or less. Application for homestead entry or inspection must be made in person by the applicant at the office of the local Agent or Sub-Agent.

An application for entry or inspection made personally at any Sub-agent's office may be wired to the local Agent by the Sub-agent, at the expense of the applicant, and if the land applied for is vacant on receipt of the telegram such application is to have priority and the land will be held until the necessary papers to complete the transaction are received by mail.

In case of "pre-emption" the entry will be summarily cancelled and the applicant will forfeit all priority of claim. An applicant for inspection must be eligible for homestead entry, and only one application for inspection will be received from an individual until that application has been disposed of.

A homesteader whose entry is in good standing and not liable to cancellation, may, subject to 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. Where an entry is summarily cancelled, or voluntarily abandoned, subsequent to institution of cancellation proceedings, the applicant for inspection will be entitled to prior right of entry.

Applicants for inspection must state in what particulars the homesteader is in default, and if subsequently the statement is found to be incorrect in material particulars, the applicant will lose any prior right of re-entry, should the land become vacant, or if entry has been granted it may be summarily cancelled.

DUTIES.—A settler is required to perform the conditions 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) If the father (or mother, if the father is deceased) of a homesteader resides upon a farm in the land entered for by such homesteader, the requirement as to residence may be satisfied by such person residing with the father or mother.
- (3) If the settler has his permanent residence upon farming land owned by him in the vicinity of his homestead, the requirement may be satisfied by residence upon such land.

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.

NOTICE OF CANADIAN NORTH-WEST MINING REGULATIONS.

COST. Coal lands may be purchased at \$10 per acre for soft coal and \$20 for anthracite. Not more than 32 acres can be acquired by one individual or company. Royalty at the rate of ten cents per ton of 2,240 pounds shall be collected on the gross output.

LEASES. A free miner's certificate is granted upon payment in advance of \$5 per annum for an ind. vital, and from \$50 to \$100 per annum for a company according to capital.

A free miner, having discovered mineral in place, may locate a claim 1500 x 1500 feet.

The fee for recording a claim is \$5. At least \$100 must be expended on the claim each year or paid to the mining recorder in lieu thereof. When \$500 has been expended or paid, the locator may, upon having a survey made, and upon complying with other requirements, purchase the land at \$1 per acre.

The patent provides for the payment of a royalty of 2 1/2 per cent on the sales. Placer mining claims generally are 100 feet square; entry fee \$5 renewable yearly.

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

The lessee shall have a dredge in operation within one season from the date of the lease for each five miles. Rent \$20 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. COBY,
Deputy of the Minister of the Interior.

WANTED, MEN. 75
for underground and Surface work.
Best Wages Going.
Apply in person to Mines Office.
Intercolonial Coal Mining Co. Limited.

WESTVILLE, N. S.

June, 6, 07.

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—

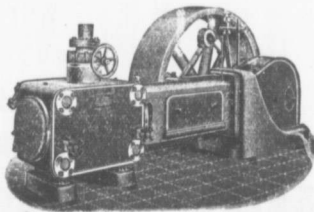
Brick! Brick!

The Stellar 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.

Works—SYLVESTER Hse. 102—STELLARTON,
GEO. E. MUNRO, Sec'y, WESTVILLE, N. S.

ROBB POWER PLANTS.



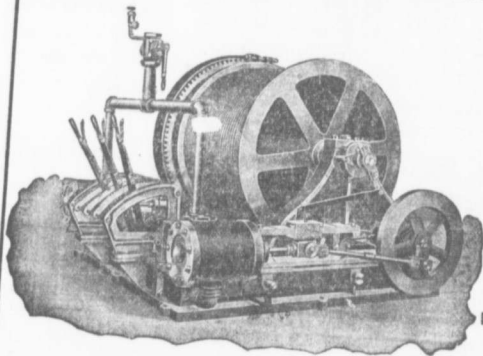
We design and contract for steam power plants and maintain an experienced and thoroughly practical engineering staff that is at the service of our customers.

CORLESS ENGINES.
HIGH SPEED VERTICAL ENGINES.
MEDIUM SPEED HORIZONTAL ENGINES.

ROBB-MUMFORD BOILERS,
RETURN TUBULAR BOILERS,
WATER TUBE BOILERS.

Robb Engineering Co., Limited,
AMHERST, N. S.

"Lidgerwood" Hoisting Engines.



This is a view of our combined friction driven and brake and reversible link motion hoisting engine. The most economical for mining purposes ever built.

We are the exclusive builders in Canada of the "Lidgerwood" Hoisting Engines, the standard of the world for mining and general contracting.

Works, Montreal.

Branch Office, New Glasgow

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

Contractors to Admiralty and War Office, also Colonial Governments.

ALLAN, WHYTE & C'O'Y.

Clyde Patent Wire Rope Works,

Cablegrams: "Roper" Rutherglen, Rutherglen, Glasgow, Scotland. Cables, A. B. C. (6th & 5th Eds) A. L. Liebers and Private.

Wire Ropes

for Winding & Haulage in Collieries and Mines. 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 Vabana 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.**

—Different Sizes and Qualities 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 INVERNESS (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 Hastings, C. B.

INVERNESS RY. & COAL CO'Y

Time Table No. 22, Taking effect at 1 a.m. June 17th 1927.

EASTBOUND				STATIONS.	WESTBOUND			
Read Down		No. 34			No. 51		No. 52	
No. 32	No. 34	No. 32	No. 34		No. 51	No. 52	No. 51	No. 52
S. 40	P. 30	S. 40	P. 30		S. 40	P. 30	S. 40	P. 30
L 11 25	L 4 00	P 5 30	P 8 00	PORT HASTINGS	A 11 15	A 8 25	S 11 05	S 8 15
S 11 01	S 4 00	P 5 30	P 8 00	PORT HASTINGS	A 10 55	A 8 05	S 10 45	S 7 55
A 11 25	L 4 25	P 5 30	P 8 00	TRIOY	P 10 42	P 7 52	L 10 32	L 7 42
	P 4 30	P 5 30	P 8 00	GLADSTONE	S 10 30	S 7 40	L 10 20	L 7 30
	S 4 45	P 5 30	P 8 00	JUDIQUE	P 10 15	P 7 25	L 10 05	L 7 15
	P 4 30	P 5 30	P 8 00	CHAIGMORE	S 10 00	S 7 10	L 9 50	L 7 00
	S 4 45	P 5 30	P 8 00	CATHLAMING POINT	P 9 50	P 7 00	L 9 40	L 6 50
	L 4 45	P 5 30	P 8 00	PORT HOOD	L 9 35	L 6 45	S 9 25	S 6 35
	S 4 30	P 5 30	P 8 00	GLENGOE	S 9 15	S 6 25	L 9 05	L 6 15
	S 4 30	P 5 30	P 8 00	MABOU	S 8 45	S 5 55	L 8 35	L 5 45
	S 4 25	P 5 30	P 8 00	GLADSTONE	S 8 30	S 5 40	L 8 20	L 5 30
	S 4 25	P 5 30	P 8 00	BLM & BURE	P 8 15	P 5 25	L 8 05	L 5 15
	S 4 25	P 5 30	P 8 00	STRA HEDRNE	S 8 00	S 5 10	L 7 50	L 5 00
	A 7 25	P 5 30	P 8 00	INVERNESS	L 7 45	L 4 55	S 7 35	S 4 45
	P 4 30	P 5 30	P 8 00		A. R.			

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

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.

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

Users of Steam

IF YOU WANT TO SAVE FUEL, Use

B. & W BOILERS,

Over 6,000,000 H. P.
in use.

Patent Steam Superheaters,
2,000,000 H. P. in Use.

Mechanical Stokers, Coal Conveyors, Electric Cranes.

—Circulars and full information on application.—

BABCOCK & WILCOX, Limited.

Head Office for Canada.....11 PLACE D'ARMES, MONTREAL.
Branch Office.....TRADERS BANK BUILDING, TORONTO.

A. & W. MacKINLAY

LIMITED.

Rule and Print Special Blank Forms
for Mining and other Industrial
—Corporations.—

BLANK BOOKS ruled to pattern and
and made in any Style of BINDING
Loose leaf supplies of all kinds made to
order.

135 to 137 GRANVILLE STREET.

HALIFAX. N. S.

George Patterson,
BARRISTER, SOLICITOR, ETC.
NEW GLASGOW, N. S.
Successor to Sinclair and Paterson—

. 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.*

**Rand Air Compressors,
 "Little Giant" Rock Drills,
 Harrison Coal Cutters,
 Davis Calyx Core DRILLS,
 "Imperial" Pneumatic Tools.**

MANUFACTURED BY
CANADIAN RAND COMPANY, LIMITED.

Halifax Office, 116 Hollis St.

G. L. BURRITT, Agent.

Sullivan Rock Drills.

Costs less for Maintenance,
 and drill faster than any
 other Drill on the Market.

May we tell you why?

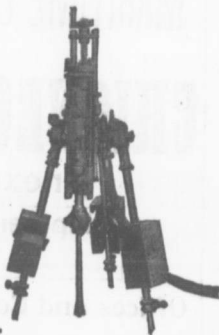
CATALOGUE 51

Sullivan Machinery Company.

I. Matheson & Co. Limited, Agents. New Glasgow, N. S.

Claremont, N. H.

Chicago, Ill.



RUBBER HOSE for Air Drills Pneumatic
 Tools, Steam, Suction, etc.

"REDSTONE SHEET PACKING,

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

RUBBER BELTING For Transmitting, Conveying and Elevating.
 Unequaled for Durability and Power Transmitting Qualities.

MANUFACTURED BY—

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

Branches at Montreal, Winnipeg and Vancouver

Head offices, 47 Yonge Street, Toronto

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 & POWER CO., Ltd.

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.

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.

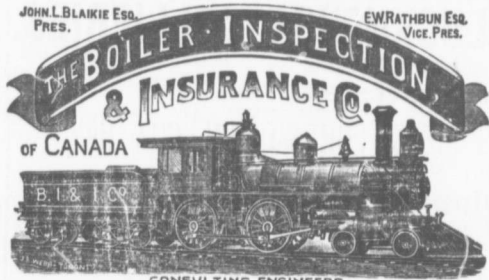
Screening plants are now in operation at Sydney, Springhill, Broad Cove, Port Hood and "Westville" Mines

Estimates Cheerfully given

CORRESPONDENCE SOLICITED

JOHN L. BLAIKIE ESQ.
PRES.

EW RATHBUN ESQ.
VICE PRES.



G. C. ROBB CHIEF ENGINEER

CONSULTING ENGINEERS

HEAD OFFICE TORONTO

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

WRITE TO

G. W. JONES, Agent,

Halifax, N. S.

-OR TO-

A. BONNYAN, INSPECTOR

Amherst N. S.

WIRE ROPE

All Kinds and Sizes

GREENING

and for all purposes
Standard and Lang's Patent

Rope Fittings.

Prices Right. Lay. Prompt Shipments.

Rope Grease.

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

**DRUMMOND
COAL.**

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.

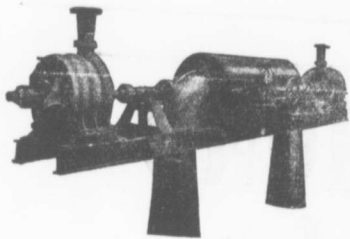
The Reputation of this Coal has Steadily Advanced during the past 40 years and the Output of the new Mine is fully up to the old Standard of Excellence.

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.



Two Worthington 3 stage Turbines and McCormick Water Wheels, built for Port Arthur, Ontario, Water Works. Combined capacity 140 gall. per minute against 350 head.

PUMPS

Worthington Pumps for
Water Works and Mines.

Water Wheels

Doble Water Wheels for high heads.

Mill Machinery

Etc. Etc.

Head Office and Works: MONTREAL.

District Offices:—MONTREAL, 82 Sovereign Bank Building.
WINNIPEG, 251 Notre Dame Avenue.
NELSON, Josephine Street.

TORONTO, 810 Traders Bank Building
VANCOUVER, 416 Seymour Street.
NEW GLASGOW, N. S., TELEPHONE B'LD.

Dominion Coal Company, Ltd.

Miners of

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

—Yearly output 3,500,000 tons.—

ANALYSES.

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

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

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

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

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

:: BUNKER COAL ::

The Dominion Coal Co. has provided unsurpassed facilities for Bunkering Ocean going Steamers with Dispatch. Special attention given to Prompt loading. Steamers of any Size are bunkered without detention.

By Improved screening appliances lump coal for Domestic trade is supplied of superior quality.

Prices, Terms, etc. may be obtained at the Offices or the Company.

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

DOMINION COAL COMPANY, LIMITED,
DOMINION COAL COMPANY, LIMITED,
DOMINION COAL COMPANY, LIMITED.

112 St. James St., Montreal, Que.
171 Lower Water St., Halifax, N. S.
Quebec, Que

—and from the following agents.—

R. P. and W. F. Starr, St. John, N. B.
Harvey & Co., St. Johns, Newfoundland.
Hull Blyth & Co., 4 Fenchurch Avenue, London, E. C.

Peake Bros. & Co. Charlottetown, P.E.I.
A. Johnston, and Co., Stockholm, Sweden.

G. H. DUGGAN,

2nd. Vice President

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%	27.93%	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.

BEST GAS COAL

Mines

SPRINGHILL

Mined in the Province.

N. S.

Head Office

MONTREAL