

# MARITIME MINING RECORD AND COAL AND METAL TRADES JOURNAL

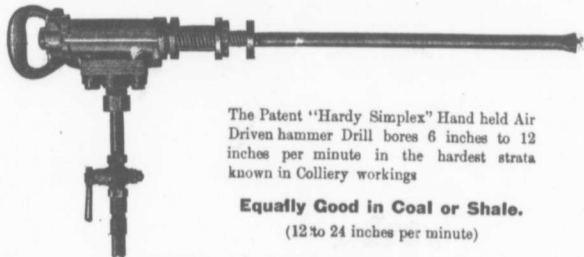
Dr. R. Bell  
Geol. survey dept.

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

New Series Vol. 11 No. 12 DECEMBER 23rd 1908 STELLARTON, N. S.

## ROCK BORING REVOLUTIONIZED.

Wet Holes or Dry Holes bored with equal facility.



The Patent "Hardy Simplex" Hand held Air Driven hammer Drill bores 6 inches to 12 inches per minute in the hardest strata known in Colliery workings

**Equally Good in Coal or Shale.**

(12 to 24 inches per minute)

If You have Sinking, Driving or Ripping to do, You lose money without the "Simplex"

Supplied with hollow drill Steels, or solid twisted Augers. Bores 6 feet easily. Rotates Automatically. Cleans the hole automatically. Weight 28 lbs. Beats Bar or Tripod Drills out of sight.

Stocked By **A. C. THOMPSON CO'Y**, North Sydney, C. B.  
**The Hardy Patent Pick Co., Ltd.** Sheffield, England.

A. B. C. & A. 1 Codes Used.

Telegraphic Address, Latch, Haymills

# LATCH & BATCHELOR, L<sup>t</sup>d.

AMALGAMATED WITH  
**WEBSTER & HORSFALL,**

(ESTABLISHED 1730.)

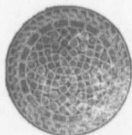
Works : HAYMILLS, BIRMINGHAM, ENGLAND.

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

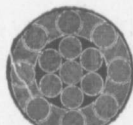
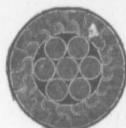
Patentees and Manufacturers of

## Locked Coil and Flattened Strand WIRE ROPES.

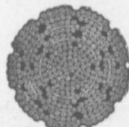
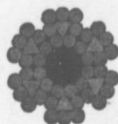
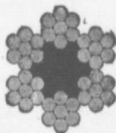
Manufacturers of all Kinds of WIRE ROPES for  
**Mines, Tramways, Aerial Ropeways, Suspension  
Bridges, Cranes, Elevators, Transmission of  
Power, Steam Ploughing and General  
Engineering Purposes.**



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, (noy spinning)

**DRAWERS OF** all Sections **STEEL-WIRE.**  
HIGH CLASS  
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, : c.**

OFFICE: —76 and 78—

Telephone 251. P. O. Box, 520

**GRANVILLE ST., HALIFAX, N. S.**

# J. W. GUMMING, & SON

**Sole  
Manufacturers  
of the  
Famous**

**“SPEEDY”  
Coal Boring  
Machine.**

ALSO

**Mine & Wharf Cars, Draw Bars, Couplings, Mountings, etc.**

DESIGNERS AND MANUFACTURERS OF

**All Kinds of High Grade Miners' Tools,  
Light and Heavy Forgings.**

Phone 47

Correspondence Solicited

**New Glasgow, N. S.**

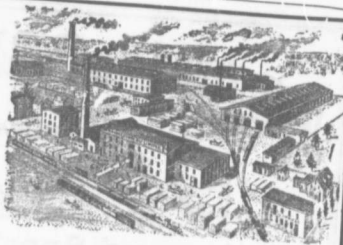
**Black Watch**  
Black Plug  
The Chewing Tobacco  
of Quality.



**"FENERTY" SHOVELS**  
-FOR-  
Miners, Contractors and  
Heavy Work,  
**"GILMOUR" SHOVELS**  
-FOR-  
General Purposes,  
MANUFACTURED BY  
**The HALIFAX SHOVEL CO**  
HALIFAX, N. S.  
ALL GOODS GUARANTEED.  
SPECIAL SIZES and SHAPES MADE TO ORDER

*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'** COLLETRY LAMP OIL.  
For Marsani, Muscels Deflector or Closed Lamp  
**PURE WHITE FLAME** **LOW PRICE**  
**E. WOLASTON, Dutton St MANCHESTER**  
Sole Representatives for Canada, **AUSTEN BROS.,**  
Halifax, N. S.



MANUFACTURERS OF—  
**RAILWAY STREET and MINING CARS,**  
CAR WHEELS Church Pews,  
FORGINGS & Fittings for Stores, Schools, &c  
CASTINGS A SPECIALTY  
Large Stocks of Foreign and Domestic Lumber on Sale.  
**Rhodes, BUILDING MATERIALS**  
**Curry & Co., Ltd. GENERAL**  
Branch ROBBIE STREET, HALIFAX, N. S. AMHERST, N. S.

**INTERCOLONIAL RAILWAY**

On and after SUNDAY, OCT 11th 1908 trains run daily, Sunday excepted, as follows:—

—TRAINS LEAVE STELLARTON—

No 144 Mixed for Hopewell	5.55
No 79 Mixed for Trenton	6.30
78 Mixed for Hopewell	7.00
18 Express for Halifax and St. John	7.30
21 Mixed for Pictou Landing	7.40
62 Mixed for Pictou	7.45
45 Mixed for Mulgrave	8.30
19 Express for Ryln Y	8.30
26 Mixed for Pictou	11.15
26 Mixed for Truro	11.45
120 Mixed for New Glasgow	12.15
88 Express for the Synops	12.15
88 Express for Halifax and Montreal	12.50
140 Mixed for Pictou	12.50
101 Mixed for Pictou Landing	13.20
22 Mixed for Elswell	16.45
65 Mixed for New Glasgow	16.45
86 Express for Halifax and St. John	19.50
17 Express for New Glasgow	21.50
66 Express for Pictou	21.55

—TRAINS ARRIVE AT STELLARTON

79 Mixed from Trenton	6.30
61 Express from Pictou	7.00
18 Express from New Glasgow	7.30
21 Mixed from Hopewell	7.35
45 Mixed from Truro	7.55
65 Mixed from New Glasgow	8.00
27 Mixed from Pictou	10.15
45 Mixed from Mulgrave	10.45
19 Express from Halifax and St John	12.55
120 Mixed from Pictou	12.55
88 Express from Halifax and St. John	15.20
20 Express from Sydney	16.40
22 Mixed from Pictou Landing	16.45
17 Mixed from Hopewell	18.45
65 Mixed from Pictou	18.45
86 Express from the Synops	19.25
86 Express from New Glasgow	21.45
17 Express from St John and Halifax	21.45

All trains are run by Atlantic Standard Time. Please see O'clock to midnight. Montreal, N. H. Oct. 11th. 1908. Sleeping and Parlor Cars between Halifax and Sydney. Dining cars on No. 84 and 86 trains between Halifax and Mulgrave. On Nov. 20 and 22 trains between Mulgrave and Fresh River.

## CANADIAN ASBESTOS CO., MONTREAL.

FACTORY, IN LACHINE, QUE.

We carry the Largest Stock in Canada of all kinds of Asbestos Goods,

Such as Asbestos Cement for Covering Boilers, Steam Pipe Covering, Asbestos Roofing, Asbestos Packings, Paper and Millboards, Asbestos Building Lumber and Roofing Shingles, 'Asbestine' Fireproof Cold Water Paint, Engineers' and Miners' supplies, Cotton Waste, Oakum, Flax Packing, Lace Leather, etc, etc. Write for Catalogue.

— Try Our "Gripoly" Solid Woven Belting. —

## MONTREAL STEEL WORKS, Limited.

Steel Castings,  
Forgings,  
Springs,  
Frogs,  
Crossings,  
Interlocking Plants.

We Make a Specialty of

### Manganese Steel Castings for

MINING PURPOSES.

Point St. Charles,

--

--

--

Montreal Canada

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



**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.

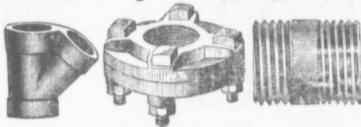
Two points that always appeal to Shipowners.

—SAILING VESSELS LOADED PROMPTLY.—

For Prices and other Particulars. apply to.

**Head Office, New Glasgow, N.S.**

**T. McAvity & Sons,**  
MANUFACTURERS OF  
**Iron Pipe Fittings**



Screwed and Flanged, suitable for Pipe from 1/4 to 12 in.



**T. McAvity & Sons,**  
Saint John, N. B.

**Mining & Mill Supplies.**

Valves,  
Fittings,  
Packing,



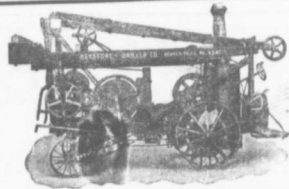
Boiler  
Tubes,  
Steel  
Plates,  
Angles,  
Tees, etc.  
SOLID DIE  
RIVETS.

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 "churn" drill, and 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 Stems 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 ANTHRACITE coal fields of Pennsylvania. When asked what impressed him most, he said:—  
"The activity of the water, and the fact that of all the pumps I saw there two out of three were Jeausville Pumps."  
As in location 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 forge.  
**Jeausville 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—

**CHRISTOPHER CHISHOLM**

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



# MI NUDIE 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

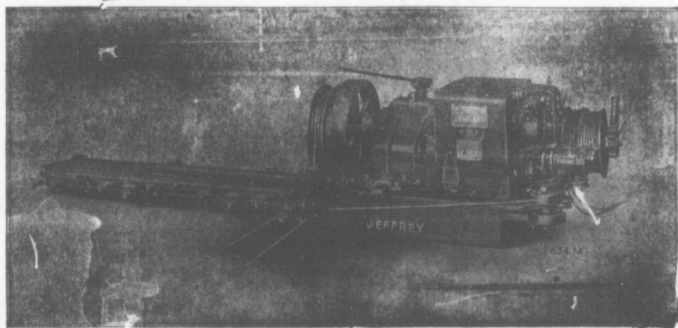
Stationary Engines, for Domestic or General use.

\* **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. Treasurer. Head Office, 212 St. James Street, Montreal.



## The JEFFREY 26-B "Shortwall" ELECTRIC COAL CUTTER,

For room and pillar work on the Longwall plan.

It cuts faster.

Consumes less power per cubic inch of coal cut.

Occupies less space, permitting the props to be set closer to the face of the coal

Is more easily controlled, operated, and handled; Is simpler and has greater strength, motor power, and endurance than any other make of Side Cutting Machine. This machine is loaded, unloaded, moved to and from the coal face and in fact handled throughout by its own power. Fully described in Bulletin No. 14

**The Jeffrey Mfg. Co.,**  
COLUMBUS, OHIO. U. S. A.

New York	Chicago	Boston	Pittsburg	Denver
Charleston	Knoxville	St. Louis	Montreal.	

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

**BRIDGES**

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

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

**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.

NOVA SCOTIA STEEL & COAL CO., Ltd.

DOMINION IRON & STEEL CO., Ltd.

BELMONT GOLD MINE Ltd.

INTERCOLONIAL COAL MINING CO., Ltd.

CAPE BRETON COAL IRON & RY. CO. Ltd.

THE CROWS NEST PASS COAL CO., Ltd.

SOLE CANADIAN  
REPRESENTATIVES

**PEACOCK BROTHERS** CANADA LIFE BLDG  
MONTREAL, P. Q.

**MINE VENTILATING FANS.**

Under direct special arrangements with the Inventor, we are building the "Capell" Patent Mine Ventilating Fan, for the Canadian Coal Mining Trade. They are largely used in the Coal Mines in the United States and Canada, as well as in Great Britain and the Continent, probably exceeding in number any other high class fan in use to-day.

We invite inquiries, which will have our closest attention.

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

**ENGINEERS**

New Glasgow, . . . Nova Scotia.

To No....

# MARITIME MINING RECORD

Vol. 11, No. 12.

Stellarton, N. S., Dec. 23rd 1908. New Series

**SELECTED QUESTIONS AND ANSWERS.**

(Science and Art of Mining.)

**SINKING.**

Q.—Describe the method of sinking by means of compressed air. State why this method cannot be employed in sinking to an unlimited depth, and name a limit beyond which it cannot be safely employed.

A.—This method of sinking is sometimes adopted for sinking through very loose, wet ground, such as running sand, gravel, and moss. When the loose ground is near the surface and not beyond the limit of depth to which this system can be successfully adopted, sinking by means of compressed air may be employed safely and in some cases economically.

In this method of sinking a cast iron cylinder is sunk through the strata or beds of sand, by means of weights or hydraulic jacks. The cylinder is closed at the top, and compressed air is forced in to keep back the water, and to enable the men to work in the pit bottom. The cylinder may be said to be a type of diving bell.

The system and method of its adoption is as follows:

A strong timber frame is erected around the shaft at the surface, which forms a guide to keep the cylinder vertical. The cylinder is supplied with a sharp edge at its lower extremity for the purpose of allowing it to pass easily through the loose ground, and is built up of cast iron segments bolted together in the usual way. It is composed of three compartments, the lower one being the working chamber wherein the sand, stones, etc. are filled into hoppers, the sinkers working the loose material away from the cutting edge of the cylinder so as to facilitate its passage through the loose ground. The chamber is always kept under pressure by means of compressed air through plant on the surface to the working chamber. The inner or middle chamber is called the air lock and has double doors. When men are descending into the mine or shaft they first of all enter the air lock, and the outer doors are closed. This chamber is then put under compression by means of air from the compressor, to about half the amount of compression in the lower chamber; when the men have accustomed themselves to this compression, the inner doors are opened, and they change places with the men in the lower or working chamber, the latter entering the air lock, and the men from the air lock entering the working chamber. After the late working party which are now in the air lock have got accustomed to the lesser pressure of the air lock the pressure therein is gradually reduced until they can with safety enter the third chamber which is open to atmospheric pressure, and then to the surface. Besides the men having to pass through the air lock, all material has to pass through i

going both up or down the shaft, and in consequence thereof, this chamber is very often made as small as conveniently possible by means of a reduced diameter to minimise the loss of air consequent upon the opening of the doors. The inner and outer doors of the air lock must never be opened at one end the same time, but one must be kept closed as a check upon the other one. The cylinder is forced down the shaft as the strata are removed from the bottom of it either by the gravitation of its own weight (by having additional weight attached to it), or by means of hydraulic jacks applied at the surface. The men at work at the bottom assist the descent of the cylinder by the removal of any hard substances, boulders, etc., which may come into contact with the cutting edge. The water is kept from coming into the cylinder solely by the pressure of the compressed air, therefore the pressure of the air must be in excess of the pressure of the water, and as the pressure of water depends upon its vertical head we can ascertain the limit of depth to which this system can be employed. The rule is the pressure in lb. per sq. inch of a column of water one foot high = .434 × vertical head × .434 = lb. pressure per square inch. Therefore, as there is a limit to the successful compression of air, and the pressure of the air must always exceed the pressure of its depth when men are in the shaft, this is one limit to its depth in working. But the limit which must always be taken into consideration, neglecting the above, is that when the pressure of the air is high the men employed in the cylinder can only work very short shifts, and then under great discomfort. In some instances they have not been able to work more than two hours out of the 24. It has been found that the greatest pressure under which men can work is about 45 lb. per square inch, and this will, therefore, give us a depth limit of

$$\frac{45}{.434} = 103.686 \text{ feet.}$$

so that the limit of depth to which this system can be safely employed is about 100 feet.

After the sinking has reached the stone head a suitable place is prepared a sufficient distance down the stone head, and a waterproof joint made between the stone head and the cast iron cylinder, which may be left in the shaft to act as tubing with or without an inner lining of masonry; or the cylinder may be extracted if desired, but it is usual to leave it in for tubing.

**FAULTS.**

Owing to the great igneous and volcanic activity at the close of the deposition of the carboniferous system of strata, the coal measures exhibit what are known as 'faults' in abundance. The mountain limestone, where it outcrops at the surface, is observed to be much joint-

ed, so much so that the work of quarrying the limestone is greatly assisted by the jointed structure of the rock. Faults differ from joints in that, whilst the strata in the latter are still in relative position on each side of the joint, they have in the former slipped out of place. In such a case the continuation of a stratum on the opposite side of a fault will be found to be depressed, perhaps a thousand feet or more. It will be seen at once how that, in sinking a new shaft into a coal seam into consideration, since the position of the seam may prove to have been depressed to such an extent as to cause it to be beyond workable depth. Many seams, on the other hand, which would have remained untouched out of reach of mining operations have been brought within workable depth by a series of step faults, this being a term applied to a series of parallel faults, in none of which the amount of down-throw is great.

The amount of the down-throw, or the slipping-down of the bed, is measured, vertically, from the point of disappearance of a layer to an imaginary continuation of the same layer from where it again appears beyond the fault. The plane of a fault is usually more or less inclined, the amount of the inclination being known as the 'hade' of the fault, and it is a remarkable characteristic of faults that, as a general rule, they hade to the down-throw. This will be more clearly understood when it is explained that, by its action, a seam of coal, which is subject to numerous faults, can never be pierced more than once by one and the same boring. In mountainous districts, however, there are occasions when the hade is to the up-throw, and this kind of fault is known as an 'inverted fault.'

Lines of faults extend sometimes for hundreds of miles. The great Pennine Fault of England is 130 miles long, and others extend for much greater distances. The surfaces on both sides of a fault are often smooth and highly polished by the movement which has taken place in the strata. They then show the phenomenon known as 'slicken-sides'. Many faults have become filled with crystalline minerals in the form of veins of ore, deposited by infiltrating waters percolating through the natural fissures.

In considering the formation and structure of the better known coal-bearing beds of the carboniferous age, we must not lose sight of the fact that important beds of coal also occur in strata of much more recent date. There are important coal beds in India of Permian age. There are coal-beds of Liassic age in South Hungary and in Texas, and of Jurassic age in Virginia, as well as at Brora in Sutherlandshire; there are coals of Cretaceous age in Moravia, and valuable Miocene Tertiary coals in Hungary and the Austrian Alps.

Again older than the true carboniferous age, are the Silurian anthracites of Co. Cavan, and certain Norwegian coals, whilst in New South Wales we are confronted with an assemblage of coal-bearing strata which extend apparently from the Devonian into Mesozoic times.

Still, the age we have considered more closely has an unrivalled right to the title, coal appearing there not merely as an occasional bed, but as a marked characteristic of the formation.

The types of animal life which are found in this formation are varied, and although naturally enough they do not excel in number, there are yet sufficient varieties to show probabilities of the existence of many with which we are unfamiliar. The highest forms yet found, show an advance as compared with those from earlier formations, and exhibit amphibian characteristics, intermediate between the two great classes of fishes and reptiles. Numerous specimens proper to the extinct

order of 'Labyrinthodontia' have been arranged into at least a score of genera, these having been drawn from the coal-measures of Newcastle, Edinburgh, Kilkenny, Saarbruck, Bavaria, Pennsylvania, and elsewhere. The 'Archæosaurus,' and the 'Anthracosaurus' are forms which appear to have existed in great numbers in the swamps and lakes of the age. The fish of the period belong almost entirely to the ancient orders of the ganoids and placoids. Of the ganoids, the great 'megalichthys Hibberti' ranges throughout the whole of the system. Wonderful accumulations of fish remains are found at the base of the system, in the bone-bed of the Bristol coal-field, as well as in a similar bed at Armagh. Many fishes were armed with powerful conical teeth, but the majority, like the existing Port Jackson shark, were possessed of massive palates, suited in some cases for crushing, and in others for cutting.

In the mountain limestone we see, of course, the predominance of marine types, encrinural remains forming the greater proportion of the mass. There are occasional plant remains which bear evidence of having drifted for some distance from the shore. But next to the 'encrinurals,' the corals are the most important and persistent. Corals of most beautiful forms and capable of giving polished marble like sections, are in abundance. (tenestella) and screw-coral (archimedopora) are sometimes five or six feet long, and goniatites, the forerunner of the familiar ammonite. Many species of brachiopods and lamellibranchs are met with. Lingula, most persistent throughout all geological time, is abundant in the coal shales, but not in the limestones. Aviculoplecton is there abundant also. In the mountain limestone the last of the trilobites (Phillipsia) is found.

We have evidence of the existence in the forests of the erect stumps of a hollow tree, although the fossil is an extremely rare one. The same may be said of the only two species of land-snail which have been found connected with the coal forests, viz., pupa vetusta and zonites piscus, both discovered in the cliffs of Nova Scotia. These are sufficient to demonstrate that the fauna of the period had already reached a high stage of development. In the estuaries of the day, masses of a species of freshwater mussel (anthracosia) were in existence, and these have left their remains in the shape of extensive beds of shells. They are familiar to the miner as mussel-beds, and are as noticeable a feature of this long ago period, as are the aggregations of mussels on every coast at the present day.

#### A MODEL MINE.

Scarcely had the State inspector emerged with the verdict 'all's well' from the Marianna coal mine in Western Pennsylvania when an explosion wrecked the works and blotted out the lives of 138 of the 139 miners then in the shafts and galleries. The irony of the situation is increased by the fact that this particular mine was considered the model mine of America, if not of the world. Before it was built, we are told, the chief officers of the company made a tour of Great Britain, Belgium, Germany, and France to study mining methods in those countries, and they claim to have adopted every safety device and modern feature which could be applied under local conditions. "As compared with the ordinary mine, it was more like the subway life of a great city," says one account—the passa-

ges being broad, even, and well lighted with electricity. Yet, as the Boston Transcript remarks, "the sacrifice could not have been more complete in the worst of the black holes in the coal country."

What at present seems to many papers the most plausible theory of the disaster is that the miners blasted their way into a chamber of natural gas. Says the Philadelphia Inquirer:

"The mine is situated in the natural gas region, but as a rule natural gas is found in porous rock and not in chambers. It may, however, easily occur that there are caverns in the bowels of the earth in which this gas has collected and it is possible that a blast may have ignited it with the resultant effects. It is a matter that will receive the closest scrutiny from Federal and State officials, to the end that a tragedy of the kind be forefended by every possible means."

Senator Dick, of Ohio, addressing the American Mining Congress assembled in Pittsburg on the general subject of American mining disasters, spoke in part as follows:

"The coal mines of the United States are killing more than three times as many men per thousand employed as the coal mines of France and Belgium, and two and one-half times as many as are killed in the coal mines of Great Britain. In all the coal producing countries of the world the output has increased greatly in the past ten years, but the United States is the only country where the number of men killed per each one thousand employed has also increased.

"In every European country there has been a marked and steady decrease in casualties in coal mines. This decrease has not been due alone to the inspection and supervision maintained by mining bureaus, but has been made possible because those nations have maintained splendidly equipped testing-stations such as the Federal Government is installing in Pittsburg, where exhaustive experiments have been carried on to test explosives and safety appliances."

Further light on the same subject is afforded by a recent bulletin of the United States Geological Survey, in which we read:

"The prominence given by the press to descriptions of mine explosions when such disasters claim a number of victims has led the general public to believe that of the many perils to which coal mine workers are exposed the danger from explosions is the greatest. Statistics do not bear out this impression. Of the total number reported for the last calendar year, 947 deaths and 343 injuries were caused by dust and gas explosions, 201 deaths and 416 injuries by powder explosions and wind-shots, 1,122 deaths and 2,141 injuries by falls of roof or coal, 855 deaths and 2,416 injuries were ascribed to other causes. The figures for 1907 show, however, that explosions of gas or mixtures of gas and dust have comparatively fatal results, the number killed in this way during the year being three times as great as the number injured; in accidents from other causes the number of non-fatal injuries largely exceed the fatal ones. In accidents from powder explosions and wind-shots twice as many men were injured as were killed, and the same ratio holds in injuries from falls of roof or coal."

The only work at which a loafer perspires is to look at a buck saw, or to keep off the flies that mistake him for a goat that has given up the ghost.

## COAL MINE DISASTERS.

By Harry E. Coll.

"During the four years, from October, 1904, to November 1908, there was eleven coal mine disasters in America and Europe, causing the loss of 2,646 lives and nearly half as many injured. People who enjoy the comfort of coal heating and grumble at the cost seldom think of the miners' risk, or of the sad record of disaster, death, maiming, suffering, misery and family bereavement that lies behind the coal bin, says the Montreal Witness. "There is no labor more dangerous than that of coal mining, and some of the brightest intellects since the days of Davy's invention of the safety lamp have sought means for lessening the chances of accidents in mines. But firelamp and other subterranean gases are so pervasive, illusive and extremely difficult of control that no really effective plan has yet been devised to overcome the dangers they menace. Scientists tell us that the era of coal is passing, that electricity will take its place, for they calculate that the exhaustion of the supply is already in sight, at least in Europe and America. Instead of being alarmed at the prospect, we should rejoice and pray that the time when we can dispense with the use of coal may be hastened."

The above is an average sample of the nonsense published in newspapers and magazines of to-day. In fact we find men, as did the Chief Inspector for the State of Pennsylvania, in his annual report, referring to the coal mining industry as being "notoriously dangerous." The result is that to-day the public have a false idea of the mining industry, and considers a mine as nothing more than a death trap, that, sooner or later, will close its jaws cruelly upon its victims. It must be confessed that the many regrettable explosions and accidents that have occurred, give only too strong a color to this belief. And yet with a full knowledge of the difficulty of his position the writer is tempted into making a few remarks in behalf of an industry that more than any other contributes to the progress of the country and the happiness and prosperity of the people.

The average man has a queer idea of a coal mine. He imagines a hole in the ground leading to all kinds of openings and unsystematic workings. He imagines these wet or filled with flying dust. He imagines the air foul and the whole mine filled with noxious gases. Then he reflects on the short life of the miner, it being popularly supposed that he dies off early from any and every disease in the calendar, all induced by the mining life. At night, ensconced in his big chair the average man digs into his favorite magazine and reads with breathless interest, 'A Mine Story' of the most impossible type, and then as he gazes into the glowing grate fire, thinks within himself what a terrible life mining is. For the average man there is some excuse for this ignorance, but when a man occupying the editorial chair of a widely read magazine or newspaper, makes himself responsible for an editorial or article of this type, there can be no excuse for an ignorance that is bereft of bliss, and is likewise without rhyme or reason. The mining of coal is really one of the safest occupations a man can engage

in, and pays more money with fewer hours of labor than any other class of work entailing bodily effort. Mining of itself is not a hazardous occupation, and if to-day it can be classed as 'notoriously dangerous' it is because a lack of discipline, combined with the attitude of labor, has made it so. Nature was very lavish with her coal deposits, but she did not deem it seemly that her gifts should be held too cheaply so they were entailed, remove before he can lay bare her bosom and delve into the heart of her treasures. And over her heart were written the words, "When entering here leave all flame without."

Has man risen to the level of nature's test? Year after year has he torn aside the mantle, and dug and delved his way, into the very vitals of his lavish mistress, until writhing in her agony, a convulsed and outraged nature has spurned him forth, burned and broken, or buried him deep in the tomb of her indignation. For, always, man has carried the flame; always has he broken that simple law of nature, and always has he paid the final penalty of,—not ignorance but disobedience. For man did rise to the level when he produced the safety lamp.

The ideal coal mine would be one in which the work of mining was carried on without the introduction of any agency which could produce flame. This is, of course, unattainable, but the ideal is not a necessity, and the necessity was never made impossible to man; only difficult at times to attain. The first necessity then in this instance is the use of a flame, for light giving purposes, which shall be so confined within a given circuit, as to be rendered harmless. There are many types of Safety Lamps, but only a few that fulfill the many conditions required, to produce a safe lamp. Even then we must admit that so far there has not been produced a perfectly safe Safety Lamp. But with the proper use of the best types the danger of igniting an explosive mixture is practically impossible.

The second necessity in the mining of coal is the use of explosives for blowing down the coal, and so far man has not distinguished himself in meeting this necessity. He has rather allowed things to drift and turned his attention to making war explosives rather than mining explosives. But taking the best we can get to day and knowing how to use it, there should be very few lives lost at the end of the year, due to the use of explosives. There is a third agent of the mining industry which, by the majority of mining men, is probably considered a necessity; that is 'Electricity.' The writer does not so consider it, since its work can be done equally well by another agent, that has the added advantage of increasing the factor of safety. As to a question of cost it is not yet proven that compressed air need step aside for its rival, electricity. This brings me to a summing up of the conditions which warrant the statement that 'Coal Mining should be one of the safest occupations.'

First—No coal mine should be operated with any other than safety lamps.

Second—No other than a detonating or high explosive fired by a battery should be used. Such explosive to be subject to Government tests and

approval.

Third—No other flame or heat producing agent should be permitted past general assembling points.

These three conditions would of course call for strict rules and Regulations governing the use of each. In this way the responsibility would rest directly on the officials to see that the Rules were properly and intelligently carried out. This of course would mean many changes from the present system. The breaking of such regulations by workmen should constitute a criminal offence, and an iron bound discipline should characterize the handling of all mine employees.

The Canadian Consolidated Coal Co. are to be commended for appealing to the Government to have Dr. Hugh Fletcher, one of the most distinguished and celebrated Geologists in Canada, advise with them and where the body of coal can be discovered on the areas owned by the company. We understand that Dr. Fletcher visited the property last week. He had an interview with the manager of the mine at the Richmond colliery and gave him directions where in his opinion some prospecting should be done. It is his intention to visit the property and make a thorough survey of them at an early date when it is hoped he will be able to lend such assistance to the company as must exist between Cleaveland and Port Malcolm. The persistent and untiring efforts of the Managing Director, H. M. Pead, will we believe yet be crowned with success as they deserve to be. His faith in the existence of a great basin or body of coal on his areas is, we believe, well placed and will materialize.—Eastern Journal.

### Intercolonial Railway.

—NEW YEAR.—

Will sell round trip tickets at **FIRST CLASS ONE WAY FARE**, to all points on the Railway.

Good Going December 21st. Returning January 4th, 1909.

**THROUGH ISSUE**—To points beyond Montreal in Canada, Port Arthur Ont., Detroit, Port Huron, Sault Ste Marie, Michigan and East thereof. Good Going December 31st, and Jan. 1st, returning January 4th, 1909.

**FIRST CLASS ONE WAY FARE to MONTREAL added to TREAL.**

Going Dec. 24th; 25th, 28th., 29th, 30th., 31st., and Jan. 1st, Return Jan. 5th, 1909.

For Fares to points on local connecting lines apply nearest Ticket Agent.

### Intercolonial Railway.

XMAS, AND NEW YEARS.

Will sell Round Trip Tickets at **FIRST CLASS ONE WAY FARE** To all points on the Intercolonial Railway. Going December 21st, 1908 to January 1st, 1909. Returning January 4th, 1909.

**THROUGH ISSUE**—First Class One Way Through Fare to points beyond Montreal in Canada, Port Arthur, Ont., Detroit, Port Huron, Sault Ste. Marie, Mich., and east thereof.

Going December 24th, and 25th. Return December 28th, Going December 31st, 1908, and January 1st, 1909. Return January 4th, '09

**FIRST CLASS ONE WAY FARE to MONTREAL added to MONTREAL.**

Going December 21st, 22nd, 23rd, 24th., 25th, 28th, 29th, 30th 31st., January 1st. Return till January 5th, 1909.

For Fares to points on local connecting lines apply to nearest Ticket Agent.

## MARITIME MINING RECORD.

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

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

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

Subscription \$1.00 a year. Single Copies 5 cents

R. DRUMMOND, PUBLISHER.

STELLARTON, N. S.

DEC. 23

\*\*\*\*\*  
*- Rubs by Rambler.*  
 \*\*\*\*\*

To those who in a cursory manner, even in an indifferent way, have taken notice of the political situation in Britain, the comments of the Halifax Herald, in reference thereto, display the most amazing ignorance, or a most pitiable petty spirit. For the life of it the Herald can't be consistent. It denounced, or damned with the faintest of praise, Burrells first education bill. Then when the third bill was dropped it chuckled and said there was only one way of dispelling the chaos, and that by the adoption of a national system, such as we have in Canada. Does the Herald not know that the first bill especially tended in that direction? The bill demanded public control of schools, supported by public rates. It denied the right of entry of any Tom, Dick or Harry to the school house whenever he liked, and teach his creed—not religion. It abolished tests for teachers, which meant that a Methodist or a Baptist could teach in any school supported by the rates. The first bill did not go far enough; it did not give justice to the non-conformist, it still gave privileges to certain creeds, and yet the Lords threw it out because it interfered with the supposed prerogatives of the Bishops and the religious nabobs. The Herald truly says that the education question was an incubus inherited from the preceding tory government. That is right. It was Balfour who put the monstrous present bill on the statutes. The Herald is right too, though it didn't know it, in saying that the Birrell and McKenna bills pleased nobody. The bill as first introduced pleased the non-conformists, but it was so mutilated before it got to the Lords that they were not enthusiastic. Asquith ought first of all to have tried to please the nonconformists, for they put him in power. But he coddled to the bishops and the Cecil's and the classes, and if the non-conformists stay at home at the next election they cannot be blamed. And then the Herald, a great temperance and prohibition paper, has not a word in favor of the licensing bill, a courageous and excellent measure. The Herald says the bill was not popular, or to be exact, that the Lords in throwing out the bill were backed by the public. What a glaring mis-statement. They were backed by the brewers. Many of the Lords are themselves shareholders in breweries, and for that reason it was thrown out. Not popular! Three hundred and fifty of the peoples represent-

atives were in favor of it to 113 against. There was one big demonstration against the bill; but who engineered it, and who paid the bills? Why, the brewers. The Herald editorials are certainly not distinguishable for either fair or broad-mindedness. Lord Landsdowne, the leader of the opposition in the Lords, received a thousand telegrams asking him to pass the bill, and yet the Herald tells us it was not "popular."

--- --

The editor, who, as everybody knows, is harmless and guileless and a peace at any price man—almost—has handed me the following article written by my good friend David Hearn of Sydney. I had almost written 'my good old friend' Dave, but that while correct, in one sense, in the sense that I have known him for a quarter of a century, would have been wrong in another, for Dave, as I have been bold enough to call him at times, is one of those men who never grow old. His valet, if the emoluments of his office enable him to employ one, may know that Dave is not wholly a hero; be that as it may there is something about him that always attracted me, and which caused me to have for him, after a bashful lover's way, a sneaking regard. Only in one respect has he disappointed me. Having reached a certain point he may have been too apt, like former British Statesman Lord John Russell, to sit down and say 'Rest and be thankful'. Had he been a fighter of the 'never let go' kind he might to-day, instead of being Attorney Deputy for the City of Sydney, been Attorney General for the Province of Nova Scotia. That at least is where I would like to land him. In reference to the letter itself I have just to say that the use of the word 'amalgamation'—referendum or no referendum—was inappropriate. There was to be no 'joining of hands', the bodies, souls, and spirits of the P. W. A. men were to become subject to the caprice of the U. M. W. willy—nilly. The Judge said the action should never have been brought. That to my mind conveys the idea that there was not even presumptive evidence. If the prosecuting attorney has to supply a motive, which might, but which even he believes, does not exist, all I have to say is I am as far as ever from grasping the ethics of the bar. From the Judge's remarks I take it there should have been a 'nolle prosequere' I imagined Mr. Hearn was a P. W. A. man, and in giving him opportunity, and cause, by my mild criticism last issue, to declare where he stands, I give demonstration that my regard for him beats warm as ever. Here is Mr. Hearn's letter:—

"I am afraid you misconceive my argument in the Moffatt case as much as you misconceive my duties as a prosecuting officer. The word 'amalgamation' may be appropriate or not in the use made of it, but it is certainly not a misstatement of facts. The word 'union' might be more appropriate, or the word 'absorption' might be best of all, but it is a fact that a referendum was tried for this purpose of deciding whether the P. W. A. should in some way, whether by 'amalgamation' or otherwise, join hands with the U. M. W. You think I went out of the way to impute motives to Mr. Moffatt. Why, my dear sir, I was only supplying the motive which it was necessary for the Crown to show in order to prove the corrupt intent—something that is necessary in the charge



of perjury. If it was a lame theory all the better for the prisoner, but it was the only theory which in my opinion could be evolved from the evidence and hence the only one urged by me. In a word I was merely theorizing, that is, arguing that the evidence might be construed reasonably to mean that Mr. Moffatt was actuated by such, and such a motive in acting in a particular manner. That is all. It is done by prosecuting officers in every cause that is tried wherein he addresses a Judge or Jury. Of course if there was no evidence it would be my duty to say so, but I don't think you, Mr. Editor, would say there was no evidence. The proceedings have been published in the papers, and while Mr. Moffatt was undoubtedly innocent of the crime of perjury, there was a lot of evidence adduced which considered in one light would give a strong appearance of guilt. Judge McGillivray very properly did not consider it in that light and acquitted him. I do not think Mr. Moffatt ascribes to me overzeal in my work. It is well known to him as to you that my personal sympathies in the fratricidal war going on in the P. W. A. is with the old association, and it is my earnest wish that the well meaning men who are working on the other side will see the error of their ways and ultimately desist from their purpose.

.. ..

If I didn't tell it not many Record readers is from a moment imagine that the following newspapers on this side have been told by certain visitors, and by certain cable correspondents, that tariff reform is making tremendous headway in Britain. Not at all, even if it is making a little noise in England. The liberals have the general election, and not more than two of these seats were won by the Tories on the tariff question, and this should be a matter of surprise and the dull times taken into consideration—"Free Trade as it is in England, is an aphorism that has played its role in the Motherland and will soon be off the stage forever. The next election will be won on tariff reform increased duties and the present Liberal government unless they adopt some of this new platform, they will never be heard of after the next general election." Rats.

.. ..

The C. B. papers tell us that a deputation consisting of the ministers, and certain members of the Glace Bay Town Council waited on the Dominion Coal Co. relative to cases of distress in the Glace Bay, due it is alleged to the dull times prevailing at the collieries during the past, at most, a couple of months. I confess to being amazed at the assertion that there is distress due to the a-bove named cause. I cannot understand it at all. The times at the collieries in the province during the past eight years have been brisk. As a rule the supply of labor was not equal to the demand. The companies each and all bitterly complained of voluntary idleness on the part of large numbers of the employees. These would see in spite of the pleadings of the press and the bosses have their frequent off days and holidays. And there was no whimper of distress due to idle times. No sooner, however, are the men subject to some days of enforced idleness than the cry of

distress is heard. It is beyond ordinary comprehension. Last year some 1000 or so men, and boys were idle, of their own accord, or went out on strike, in other words, over a trifling matter, trifling in a material sense, if important from a sentimental stand point, for a solid three months, without a hint at the end of that time that they were could stand a longer siege. How is it that after 78 solid days loss of time, there was no cry of distress in the one case, while in the other, with the loss, I judge, of less than the half of that number of days, people are running about and calling attention to the distress. To those of us who have been exultant over the good times at the collieries in recent years, this cry of distress after an insignificant period of idleness comes as a shock. What is wrong?

(Since writing the foregoing I have read a statement in the Glace Bay Gazette which says conditions have not been exaggerated, rather minimized, so that public attention might not too generally be attracted to them. The Gazette is taking a wise course, for it is certainly, to say the least, a reflection on the community and the class that such a state of affairs should exist. It is all very sad and discouraging. The one gleam of light is in the statement made by the Gazette that more bank accounts were opened this year than in any previous one. This fact surely lends emphasis to the hints which I have not sparingly thrown out, that the distress is not wholly or even in large part attributable to the comparatively few days of enforced idleness in the month or two. Why does not the Gazette, in the past is on the spot, send out a commissioner to investigate the causes leading to the present condition of some of the colliery workers. If sickness has played its part then that should be made known, so that the stigma of thriftlessness be lifted. If some idle days are not the primary cause,—of some being in want, then it should so be declared, so that any odium attaching to the trade and those engaged in it may be removed.

.. ..

I have more than once said that socialism cannot make headway or come into operation, before there has been affected a tremendous transformation in poor weak human nature, and, or, before there has been a great uplifting in the morals, or to put it in another way, the characters and conduct of our peoples. I have pointed to the I. J. R. as an instance of a lack of business capacity on the part of successive governments, and point to the evidence given at the Marine Department investigation, as proving that the government, if not conniving at extortion on the part of supply men, has not the business capacity to check sharp practice, and showing that certain people think it is not wrong, but to the utmost. As has been well said, in view of happenings in government departments, and in city councils, "Government ownership goes by as it means 'government operation.' If the representatives of the people cannot be trusted to buy a load of hay at the market price, what is the use of talking nonsense about entrusting them with the management of railways and ot-



her public utilities? If we are to have government ownership after this, it is contended, we must have it in partnership with private ownership or private operation, so as to secure the zeal of the private profit seeker for economy, honesty and efficiency on our side. This gives us an additional reason for punishing public servants who betray their trust. They do more than steal our money; they circumscribe the possible benefits we might get from government. The latter is perhaps the greatest evil of the two, as it cheats us out of more money and bigger benefits. But it is beyond question that we must prove our capacity for compelling our public servants to give us honest and capable administration in the few fields they now occupy before we can consider giving this principle any wider scope."

Socialism is the most flexible of systems or creeds or theories. Now you think you know what it means and now you don't. Some had the opinion that socialism would select for lads the trade they should follow. Mr. Ramsay MacDonald, in a late letter, says the lads can do better than the state. Some thought the state was to be the big and one-landlord Ramsay MacDonald says a man should own his own house. There is something that attracts you more to a house of your own than to lodgings. Correct.

Mr. Fergus Bryne of Glace Bay, a stalwart P. W. A. man has written a letter to the C. B. papers congratulatory of the outcome of the late trial of Secy. Moffatt in Sydney. Towards the close of his letter, in the post-script as it were, comes, as in a lady's post-script, the more important part of the letter. Mr. Bryne throws out a challenge for any U. M. W., from away up Tom. Lewis, to away down Peter Patterson, to meet him in combat and settle which is the greater, the P. W. A. or the U. M. W. The challenge is free and unfettered. The U. M. W. men are politely invited to come singly, or in battalions if they prefer it. The challenge is couched in simple language. There is no attempt at heroics, no quoting of the alleged 'deff' of Fitz James, "Come one come all, Glace Bay shall fly from its firm base as soon as I". Mr. Bryne instead of admitting for a moment, that in view of the onslaught, he is now looking long at the sun and sky and plain, as things he may not see again, after the combat, calmly opines that when the smoke of battle has cleared there will be no daylight left in his opponents or anything else indicating that they ever existed. His thoughts are tranquil. Unruffled he does his daily darg and sings to himself "Im a chappie frae the kintra; A quate chap as you see; but though I'm frae the kintra, Ye dinna come U. M. W's o'er me." A steady eye and a keen blade to you Fergus, but I fear there will be no fight in the open; that's not their style.

If there is one thing sadder than the statement that, after eight years of uninterrupted prosperity at the coal mines, in C. B., there are at least twenty-five families in actual want, it is the folly of people, considered to be well informed, making statements, rash and misleading,

whose only tendency is to create distrust and disquiet among industrial workers, and to perturb and unsettle their minds, and those of the people generally. I have before me the Herald of 16th. inst., and from it I quote as follows:—

"The Rev. D. M. Gillies, pastor of St. Pauls Presbyterian Church, stated that it has come to his notice that there were at present twenty-five families in Glace Bay who were in dire need. He criticised the Lemieux Act inasmuch as before men could come out on strike for what was just and right the Government stepped in and said, "Wait, we must investigate this thing, and before you close down the mine and deprive people of their days work, the whole thing must be investigated". It was a curious rule that did not work both ways, and he thought that the Act should be changed so that the Government could step in and say to any large corporation, "We must investigate these matters, before you close down your collieries and other works and deprive the people of their work, especially at this season of the year."

I cannot bring myself to believe that any pastor of a Presbyterian church gave utterance to such concentrated nonsense. Surely in some way the Herald or its C. B. correspondent has blurred the pith of the reverend gentleman's remarks. No Presbyterian pastor could possibly have overlooked the fact that the Lemieux Act does not make a pretense even of interfering with the off days, the holidays or the holy days that the employees take or observe voluntarily, nor with the times or the occasions on which a company is forced to temporarily close its collieries from a prevailing depression in not only its own but in all trades. It is a libel, on the part of the Herald, surely, to say that there is a Presbyterian pastor in Nova Scotia who would for a moment admit that any government in the wide world would be justified in calling upon a factory or a mine to continue operations the while it could not procure customers for its products. The title of the Lemieux Act, if my memory serves me right is, The Industrial Disputes Act, and there is not a Presbyterian pastor, the Herald notwithstanding, from Cape North to Blomidon, who does not know that the Act does not contemplate to interfere with the voluntary absenteeism of the men on the one part, or the putting on half or quarter time of a work by the proprietors, on the other. Every Presbyterian clergyman knows—at least he ought to know—that the Act presumes only to interfere when there is a dispute as to wages, or some detail of work, between the employers and the employed. No Presbyterian pastor could possibly have said that it worked only in one direction, applied to the employees and not to the employers. Every Presbyterian clergyman knows that if the men cannot go on strike, the employers cannot lock out their men, and any Presbyterian minister, in-lined to be perfectly fair, disdaining to be a demagogue, and guileless of playing to the galleries, will be ready to allow that the Act, if it is harsh at all is more so toward the employers than towards the employees. The men cannot go on strike without subjecting themselves to a penalty; the employers cannot lock out without also being subjected to a penalty. There is this difference, however

that the penalty in the former case is practically uncollectable;—one—even a government—cannot take the breaks off a hielanman, whereas in the case of a the employers there is always something tangible for the law to place its claws upon. Nor can I believe that any pastor of a Presbyterian church would use language, without qualification, which would lead to the inference that, had there been strikes in C. B. since the Disputes Act came into force they would have been just and righteous, and in so saying imply that the coal companies were wilfully and knowingly withholding from their employees what they were justly entitled to. If it is really a fact that it is a poor rule that doesn't work both ways, it is equally a fact that there are two sides to each question. Men may strike for what they consider just and right, while they may be in the wrong, all the same, and the employers may lock out their men in the belief that they have justification, while they have not, and it is just for the very purpose of declaring, by means of an impartial tribunal, the Lemieux Act was placed on its side that the Herald says that the Presbyterian pastor unmercated certain causes responsible for the distress, but there is no mistaking the intention of the Herald to convey its belief that the impression conveyed by the pastor was that the Dominion Coal Co. was the chief cause, the sinner above all others dwelling in Glace Bay. Some time ago I read a statement in a C. B. paper that the place is and around Glace Bay in which liquor could be obtained was sixty-three. There may be only fifty, but if there are but fifty, one need go no further for the chief cause of the prime factor responsible for the 'dire want'. If there is one question such places, then the cause has not to be searched for, and the duty of Presbyterian and other pastors is to cease railing at the big coal company, turn up their trouser legs and 'wade' into the shebeens, roll up their sleeves and wipe the shebeens out of the place. Having accomplished this they will be justified in all efforts to convince the big sinner of a coal company of the errors of its administration.

Without doubt the chief cause of the present distress is improvidence. While it is possibly true that pastors not only of Presbyterian, but other churches are to-day, in large numbers, preaching according to their stipends—the stipends in most cases are not fair living wages—it is a matter for regret that very many people, and in increasing numbers, it is to be feared, are not cutting their coats according to their cloth. Let the rise has not kept pace with the increase in prices of commodities, the admission does not constitute any strong cause of the distress. The increased wages are an insignificant matter compared with the increased opportunities for employment. There is something very strange about this much wailing over a comparatively small number of enforced idle days. Let me give a few figures from the Mines Department records which may cause some of those who are 'down' on the Dominion Coal Co. to sit up. Taking the years 1882 to 1889 inclusive, the International mine worked on an average 60 days less each year

than it did in ONLY NINE months of 1908. And there were no harrowing tales of dire distress, In the NINE MONTHS, Jan'y—Sept. inclusive of FORTY NINE days more than the average days worked in a full year from 1882 to 1889. And there was no Dominion Coal Co., no Lemieux Act; with the one closing down mines, the other interfering with the righteous demands of labor. The Macedonian cry, worked in the nine months of 1908 NINE DAYS MORE than in any full year of twelve months from 1882 to 1889 inclusive, and the cry of the unemployed if heard in Sydney, was not heard this side of the Straits of Canso, Com- ing later down, from 1893 to 1899 inclusive.—I have no record for '92 so leave out '90 and '91 in order to get an uninterrupted period,—the pits of the Dominion Coal Co. worked on an average 211 days 3 hours each year, while for the nine months only of 1908, the average number of days for all the pits—Nos. 12 and 14 included—was 210 days, 5 hours or EIGHT HOURS LESS IN THE NINE MONTHS OF 1908 than the average of the seven years from 1893 to 1899 both inclusive, and during these years the Herald, through an imaginary presbyterian or other medium, never once hinted that the hydra headed coal company or any other creature was responsible for working the pits 210 days only in a possible 300 in each year. I am sorry if there is real distress but far far sorer for the figures which have led to it. Do the figures help you to guess what they were and are?

I see that the Glace Bay Gazette, in giving a summary of a sermon preached in Glace Bay, also repeats the Herald story that the Lemieux Act prevented, until after an investigation, the men coming out on strike for what was 'just and right'. To the writer, and others with untutored minds, this seems like an endorsement of a cruel and barbarous method of attempting to remedy supposed wrongs. It may be said it is not a ministerial sanction of indiscriminate striking. I cannot view it in that way, for even in the most ill-advised strikes—ill-advised in the opinion of the public—the strikers have entered upon the test, convinced that their cause was just and right. While the great labor leaders and unselfish social reformers, among them John Mitchell, are outspoken in their disapproval of strikes, as a remedy for laborers wrongs, and as futile in securing laborers rights, it is a bitter disappointment to learn that a Presbyterian pastor endorses their utility. In the past, strikes may have had their place, in Indian disputes, just as to-day the energies of the lovers of man are directed to finding out a more excellent way, and with all its faults the Lemieux Act is a step in that direction. The two societies which have done most for the material, intellectual, and social uplifting of their members are the Brotherhood of Locomotive Engineers, and the Provincial Workmens Association, and it may be confidently asserted, that the great success which has attended their labors, was in no part due to a strike policy.

The Record has been told, the authority is excellent, that on last Thursday the members of Pioneer Lodge concluded on Page 22.

## AROUND THE COLLIERIES.

Mr. Kirkby of the Dom. Coal Co. is over in Auld Scotia in order to ascertain among other things the merits of some highly spoken of machinery.

Mr. Duggan of the Dom. Coal Co., had a few weeks visit to the principal mining districts in Pa. and other places, in order to find out how the Americans can mine coal at so much less a price than Nova Scotians.

On last Thursday evening the ex-members of Pioneer Lodge, after nearly 29 years of allegiance to the P. W. A. cast off a certainty for an uncertainty and handed themselves over to the keeping of the non de script society called the U. M. W. "Who will to Coupar, will to Coupar."

It appears to be a popular winter pastime in Glace Bay and Sydney to keep up a running fire against the Dom. Coal Co., although about the only help that has so far been given to any families, who can not get credit, has been given by the Colliery Managers, as instructed by the Company to do, where employees are concerned.

Some very fine specimens of gold quartz are in possession of the Mines Department. The specimens referred to came from the gold mine at Middle River, C. B. The gold does not show large in pieces here and there, but is disseminated in fine particles all through the quartz. The mine is making most satisfactory returns, and the prospects are rosy.

It is reported that one of the biggest of the American coal companies, the Berwind, White Co., through one of its principals has declared that it is prepared to spend a half million dollars in order to retain and extend its grip of the St. Lawrence trade. This, taken with the fact that the organizer of the U. M. W. has asserted that his society is prepared to spend its funds in securing a footing in N. S., should make every Mainland and Cape Breton mine worker sit up and think.

The announcement of the death of Mr. Harvey Howard, of the Cumb. Ry. & Coal Co.'s engineering and surveying staff, came as a great surprise and grief to many. One in Springhill, who knew the deceased well, thus writes of the funeral:—

"An impressive scene! The coffin, covered with flowers, carried from his home in full view of the collieries for which Mr. Howard had done so much. The slow march of the long procession, to the sad music of the band, to the English Church on the main street; the crowd of spectators. A solemn service in the church, and Rev. Mr. Norwood's kind reference to Mr. Howard as a useful, industrious, citizen of a great mining town. The slow march then resumed to the beautiful resting place, overlooking the valley of South Branch of Black River. The ancient ritual of his Masonic brethren at the open grave, into which they cast sprays of evergreen—an emblem of immortality—and said farewell to their brother in the softly falling snow, the warm mist and deepening gloom of a mid-December evening."

Every army must have a bugler and one who knows well his notes. Mr. Fergus Bryne has been appointed bugler for the P. W. A., and as he sends forth no uncertain sound the P. W. A. men are prepared for the battle.

A piece of work has just been completed by the Nova Scotia Steel & Coal Co. at their works in Trenton, which could not be done in any other establishment in Canada, and could not be better done in any other part of the world. It is called a fifteen ton shaft, made in two pieces with cranks, etc., and is for a pump being erected by John Inglis and Co. for the City of Toronto, at a cost of about \$160,000. The pump has a capacity of fifteen million gallons of water per day. The shaft is unquestionably a splendid piece of workmanship and should serve as a big advertisement for the Steel Co.'y. The profit on it will not contribute much to payment of dividends, but then the experience received in making it is a splendid investment likely to pay handsomely in the future. The shaft where it entered the crank was only 15-1000ths of an inch less than the eye; had it been 20-1000ths it could not have been entered. The shaft end was forced into the crank with a pressure of 150 tons.

We regret to chronicle the failure of the first boring for coal in Prince Edward Island begun by the Dominion government in October last, at a point on the sea shore, North of Orwell Bay, recommended more than forty years ago by Sir William Dawson, and more recently in several reports presented to the Dominion and Provincial legislatures by officers of the Geological Survey. While sympathizing with Contractor Stover and his skilful assistants, we feel sure of their ability ultimately to reach the depth of 2500 feet, and hope that they may find coal in this or one of the other drillings under contract. In Nova Scotia holes have been bored to a depth of more than 3000 feet in search of coal and oil.

Mr. Patterson was organizer for the U. M. W. in the West. Nanaimo and Fernie are two mining localities in the West. Mr. John Eagan of Sydney Mines, has in the Sydney Post this to say of conditions under the benign rule of the U. M. W.:—

"Wages are much higher generally than in the East, but considering the loss of time through the fluctuation of trade, the high cost of living, the damp foggy inclement weather, and the uncertainty of holding your irregular work a man cannot save any money here. The East has its lower wages, it also has its longer hours, but taking all in all into consideration it is much more preferable than the West. . . . There is a union here but evidently it exists in name only. . . . Work at the Fernie mine is more regular, but the very name is enough to frighten it exists in name only. . . . Work at the Fernie mine is more regular, but the very name is enough to frighten an ordinary man. When you have heard tales told by men who have cleared out of the death smitten district, it is enough to make your hair stand on end." Ah, now we have a reason why Peter makes love to the East.

Comparative Receipts of Coal in the St. Lawrence,  
SEASONS 1906, 1907, 1908.

	Montreal		Sorel		Three Rivers.		Quebec and Lewis.		RECAPITULATION.				
	1906	1907	1906	1907	1906	1907	1906	1907	1906	1907			
N. S. & C. C.	142 581	77 567	70 304	70 304	3 949	8 061	7 167	64 869	53 515	94 785	225 308	163 022	205 960
Donn. Coal Co.	1 043 493	937 421	1 204 573	8 257	4 373	4 321	42 611	63 476	37 705	80 230	82 939	101 857	1 348 551
Port Hastings.	34 405	30 334	19 150	10 342	1 600	1 600	1 600	25 142	37 892	62 826	1 400	738	1 830
Port Hood	8 646	8 646	8 646	8 646	1 600	1 600	1 600	1 900	20 450	1 900	20 450	12 206	81 976
Mabou	48 025	30 371	30 365	30 371	4 000	4 000	4 000	5 000	9 507	53 025	53 025	45 878	733
Intercolonial	59 801	62 532	69 125	7 000	4 000	4 000	4 000	650	14 000	59 801	59 801	62 532	30 125
Acadia Coal Co.	28 800	28 800	28 800	28 800	2 500	702	1 800	25 000	51 100	33 550	33 550	67 965	67 965
Seco'h & Eng.	13 000	52 063	130 443	30 508	30 812	38 727	53 790	200 801	237 621	64 782	39 800	105 723	195 927
Am. Bit., Canal.	1 370 205	1 213 034	1 533 525	30 508	30 812	38 727	53 790	200 801	237 621	64 782	39 800	105 723	195 927
1906	1 370 205	1 213 034	1 533 525	30 508	30 812	38 727	53 790	200 801	237 621	64 782	39 800	105 723	195 927
1907	1 213 034	1 533 525	30 508	30 812	38 727	53 790	200 801	237 621	64 782	39 800	105 723	195 927	1 555 504
1908	1 533 525	30 508	30 812	38 727	53 790	200 801	237 621	64 782	39 800	105 723	195 927	1 555 504	2 022 907

Increased receipts by Water, N. S. Coal Montreal 1908 over 1906.

"	Am. Bit.	"	1908 over 1906	66 715 tons
"	"	"	"	"
"	N. S.	"	Sorel	127 000 tons
"	"	"	1908 over 1906	"
"	N. S.	"	Quebec	7 500 tons
"	"	"	1908 over 1906	"
"	Am.	"	Quebec	105 000 tons
"	"	"	1908 over 1906	"

Total N. S. increase to Province of Quebec 215,000. Am. total bituminous by Canal, 167,000. For the 12 months of 1908 probably 180,000 tons of Am. Bit. coal came in by rail. Assuming these figures to be correct the increase of Am. Bit. coal into Quebec, far exceeds that in the N. S. receipts. This may well cause, not only the operators, but the miners—in C. B. especially—to do some strong thinking.

# Amatite

## ROOFING



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

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

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

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

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

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

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

**The CARRITTE - PATERSON M'F'G C'O'Y., Ltd.**  
St. John, N. B., Halifax, N.

after agreeing to disband and give up the Charter, by motion agreed that the funds of the lodge be distributed among the members. If the motion to do so was made after the motion to send in the charter then a double wrong was committed; if before, it was still wholly illegal and may be looked upon as an act of piracy. The funds of Pioneer Lodge were not the funds of its members, to do with as they pleased. The Act incorporating the Grand Council makes this clear. Section 7 of the Act says:—

"Upon the dissolution of any subordinate lodge so incorporated, the property held by it at the time of the dissolution which shall not have been disposed of by the lodge IN ACCORDANCE WITH THE BY-LAWS, shall forthwith be vested in the Grand Council of the Provincial Workmen's Association, to be applied first in the payment of any debts or liabilities of such subordinate lodge, and the balance, if any, in such manner as the Grand Council of the Provincial Workmen's Association may deem best for the general interests of the order in this Province."

The bye laws make no provision for a dividing up among the members whenever they take it into their heads. What action the Grand Council, may take in the premises is not known. It is possible that the prominent members in the movement whose names are of course known, may have to stand trial for conspiracy to defraud. The Record would regret to see, in the mass, good but misguided men placed in such a position, so the better plan might be to make full restitution before the clutches of the law take hold of any.

**BRATTICE CLOTH**  
**TARRED AIRPROOF**  
**ALSO**  
**FIRE-PROOF.**

—O—O—O—  
As Used by the Leading Scotch-English  
and Welsh Collieries.

**PROMPT DELIVERIES.**

**DRUMMOND, McCALL & CO.**

MONTREAL and LONDONDERRY, N. S.

# Plumbago

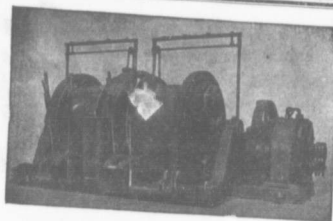
for all

## Purposes.

\*\*\*\*\*

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

**Montreal and Toronto.**



Westinghouse Motor, Driving Mine Hoist.

## Westinghouse Motors for Mines

It is No Trouble  
to place motor driven apparatus  
exactly where wanted. There  
are no lines of power wasting  
piping to worry about. Simply  
wires. You can run wires any-  
where.

ADDRESS NEAREST OFFICE  
**CANADIAN WESTINGHOUSE CO.,**  
—LIMITED—

**Office and Works, Hamilton, Ont.**  
Traders Bank Bldg., Toronto. 232 St. James Street Montreal.  
439 Postler St., Vancouver. 158 Granville St. Halifax.  
922-923 Union Bank Bldg., Winnipeg.

*Priestleys*  
**Mohairs**

— and —

**Lustres**

Have Excellent  
Wearing Qualities.

WILL NOT COCKLE  
== WITH RAIN ==

Best for —

**SPRING AND SUMMER  
SHIRT WAIST SUITS.**

All Ladies who wish to look well  
wear **Priestleys Dress Goods.**  
**Greenshields Limited, Sole Agents.**  
Montreal, Canada

### The **TORNADO** AIR POWER GOAL 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 36, not reserved, may be homesteaded by any person the sole head of a family, or male over 18 years of age, to the extent of one-quarter section, of 160 acres, more or less.

Application for entry must be made in person by the applicant at a Dominion Lands Agency or Sub-agency for the district in which the land is situated. Entry by proxy may, however, be made at an Agency on certain conditions by the father, mother, son, daughter, brother or sister of an intending homestead.

An application for entry or cancellation made personally at any Sub-agent's office may be written to the Agent by the Sub-agent, at the expense of the applicant, and if the land applied for is vacant on receipt of the telegram, such application letter 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" or "franchise" land the applicant will forfeit all priority of claim or if entry has been granted it will be summarily cancelled.

An applicant 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 Deputy Commissioner, be allowed to transfer the land, mother, son, daughter, brother or sister, if eligible, but to no one else, on filing declaration of abandonment.

The homesteader is required to perform the homestead duties under one of the following plans—

(1) At least six months' residence upon and cultivation of the land in each year during the term of three years.

(2) A homesteader may, if he so desires, perform the required residence duties by living on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of his homestead. Joint ownership in land will not meet this requirement.

(3) If the father (or mother, if the father is deceased) of a homesteader has permanent residence on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of the homestead or upon a homestead entered for by him in the vicinity, such homesteader may perform his own resident duties by living with the father (or mother).

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

(5) A homesteader intending to perform his resident duties in accordance with the above while living with parents or on farming land owned by himself must notify the Agent for the district of such intention.

Six months' notice in writing must be given to the Commissioner of Dominion Lands at Ottawa, of intention to apply for Patent.

Before making application for patent the settler must give six months' notice in writing to the Commissioner of Dominion Lands at Ottawa, of his intention to do so.

W. W. COBY,

SYNOPSIS OF CANADIAN NORTH-WEST MINING REGULATIONS.

**COAL.** Coal lands may be purchased at \$10 per acre for soft coal and \$20 for anthracite. Not more than 320 acres can be acquired by one individual or company. Royalty at the rate of ten cents per ton of 2000 pounds shall be collected on the gross output.

**QUARTZ.** A free miner's certificate is granted upon payment in advance of \$5 per annum for an individual, and from \$20 to \$100 per annum for a company according to capital.

A free-miner, having discovered mineral in place, may locate a claim 150 x 150 feet.

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

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

Placer mining claims generally are 100 feet square; entry fee \$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 leasee 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 1 1/2 per cent collected on the output after it exceeds \$10,000.

W. W. COBY,

Deputy of the Minister of the Interior.

## Miners Wanted To Chew BULL DOG TOBACCO,

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

TRY IT!

The St. Lawrence Tobacco Co., Ltd.

—Montreal—

—W. B. Reynolds, Halifax Representative—

## 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.

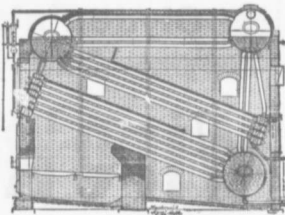
Works—SYLVESTER

Head Office—STELLARTON.

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

## ROBB-MUMFORD

### WATER TUBE BOILERS



FREE EXPANSION OF TUBES.

PERFECT WATER CIRCULATION.

DRY OR SUPERHEATED STEAM

HALF THE USUAL NUMBER OF HEADHOLES.

**ROBB ENGINEERING COMPANY, L't'd,**  
AMHERST, N. S.



**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, &amp;c., &amp;c.

**CURTIS'S & HARVEY, LTD.** HEAD OFFICE,  
3 Gracechurch St. London, E CSupplies of all Explosives to be obtained from  
Agents for Nova Scotia—**AUSTEN BROS., Halifax**

Contractors to Admiralty and War Office, also Colonial Governments.

**ALLAN, WHYTE & COY****Clyde Patent Wire Rope Works,**Cablegrams: "Ropery Rutherglen" **Rutherglen, Glasgow, Scotland.** Codes A B C (4th & 5th Eds)  
A. L. Lebars 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 1,700,  
000 tons in that time and is still good for further considerable service.

Agents in Nova Scotia:—Wm. Stairs, Son and Morrow, Limited.

Agents in New Brunswick:—W. H. Thorne &amp; Co., Ltd., Saint John.

—Different Sizes and Qualities kept in Stock—





# WIRE ROPE, "Acme Brand."

**Highest Grade of Hoisting Rope made,**  
Extra Tensile Strength for Heavy Work.  
Use Greening's Rope Grease for Lubrication.

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

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.  
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  
at Port Hastings, C. B. for prompt loading of all classes and  
sizes of Steamers and sailing vessels.

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

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

Miners of the  
**MABOU DIAMOND COAL.**

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

Mines, Piers  
and General Offices

**MABOU. CAPE BRETON.**

### INVERNESS RY. & COAL CO'Y

Time Table No. 26, Taking effect at 1 a. m.  
OCT 11TH, 1908.

EASTBOUND			WESTBOUND		
Read Down			Read Up		
No. 52	No. 54		No. 51	No. 53	
a. m.	p. m.		a. m.	p. m.	
L 10 4	L 2 30	F. TUPPER JUNCTION	A 10 26	A 2 36	
S 10 21	S 3 25	PORT HAWKESBURY	S 10 25	S 3 27	
A 11 10	A 4 05	PORT HASTINGS	L 10 07	L 3 10	
	F 4 25	THOY	F 9 52		
	S 4 38	GREENISH	S 9 39		
	F 4 50	JULIQUÉ	F 9 25		
	S 5 08	CHATHMORE	S 9 12		
	F 5 18	CATHERINE'S FUND	F 8 44		
	A 5 23	PORT HOOD	L 8 32		
	S 5 38	GLENCOR	A 8 22		
	S 6 14	MADOU	S 7 47		
	S 6 28	GLENDYKE	S 7 39		
	S 6 48	BLA'K RIVER	F 7 18		
	S 7 05	STRATHLORE	S 7 05		
	A 7 15	INVERNESS	L 6 48		
	p. m.		a. m.		

Trains make close connections at Pt. Tupper Jet,  
with I. C. B. passenger trains, excepting the Mari-  
time Express.

# 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."

**Loading Piers at Port Morien C. B.      Quick Dispatch.**

Head Office, Halifax, N. S.

Mines Office, Port Morien, C. B.

## Babcock & Wilcox, Limited.

**PATENT WATER TUBE BOILERS.**

Over 7,000,000 H. P. in use, Fired with all kinds of Fuel

Steam Superheaters, Feed Water Heaters, Mechanical Stokers, Coal Conveyors, Steel Chimneys, Water Softeners and Purifiers, Electric Cranes, Piping.

**Our Text Book "Steam" Free to users.**

Head Office for Canada, New York Life Building, Montreal.

Branch Office, Traders Bank Building, Toronto.

## A. & W. MacKINLAY, JERSEY - LILY - FLOUR.

LIMITED.

Rule and Print Special Blank Forms for Mining and other Industrial Corporations. BLANK BOOKS ruled to pattern and made in any Style of BINDING.

Loose leaf supplies of all kinds made to order.

135 to 137 GRANVILLE STREET.

**HALIFAX, N. S.**

*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.*

**Air Compressors, Rock Drills,  
Imperial Pneumatic Tools,  
Air Appliances, Coal Cutters,  
"EVERYTHING IN AIR MACHINERY."**

BUILT BY

**CANADIAN RAND CO., LIMITED.**

MONTREAL. HALIFAX. TORONTO. WINNIPEG. ROSSLAND. VANCOUVER

THE  
**BOILER INSPECTION & INSURANCE CO.**  
OF CANADA.

(COMMENCED BUSINESS 1875.)

Head Office: Continental Life Building, Toronto.

Issues Policies of Insurance after a careful Inspection of the Boilers, Covering  
**ALL LOSS OR DAMAGE TO PROPERTY**

and Loss resulting from

**LOSS OF LIFE AND INJURY TO PERSON,**

caused by **STEAM BOILER EXPLOSIONS.**

**ASSETS FOR THE SECURITY OF POLICYHOLDERS, \$4,244,738.53**

JOHN L. BLAIKIE, President.

H. N. ROBERTS, Vice-President.

A. M. BONNYMAN, Inspector, Amherst, N. S.

AGENTS --- FAULKNER & CO., Halifax, N. S.

R. W. W. FRINK, St. John, N. B.

A. M. CROFTON, Sydney, C. B.

**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**

—AND—

**Steam****JOGGINS**

—AND—

**Domestic****COAL.**

Unexcelled for General Use.

**Shipment by Intercolonial Railway and Bay of Fundy**

Collieries., CHIGNECTO and JOGGINS Power Plant, CHIGNECTO, N. S.

DAVID MITCHELL, General Manager, MACCAN, N. S.

**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**

# DRUMMOND

**COAL**

High Grade Fuel  
for Steam, Domestic and General  
Purposes.

**COKE**

From Coal Washed by Latest Process,  
Growing more popular daily—and considered  
to give as good results for Foundry purposes  
as the United States Article.

**FIRE CLAY**

of Fine  
Quality

**FIRE BRICK**

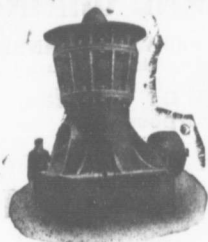
Better than  
Scotch seconds for  
Ladle lining etc.

SHIPMENTS BY RAIL OR WATER.

**INTERCOLONIAL COAL MINING CO., LTD.,**  
Westville Nova Scotia.

\*\*\*\*\*

## HADFIELD'S STEEL Foundry Co., Limited. SHEFFIELD



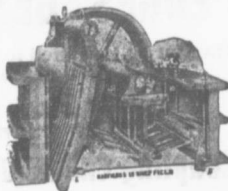
PERFECT GYRATORY  
STONE CRUSHER.



CAST STEEL  
BRONZE BUSHED.  
SELF OILING

### WHEELS & AXLES

WE MANUFACTURE  
CRUSHING ROLLS,  
ELEVATORS,  
and Gold Mining Requisites



HADFIELD'S PATENT  
**JAW CRUSHER**

(Solid Steel Construction.)

The Parts which are subject to Excessive Wear are made of

**Hadfield's Patent 'Era' Manganese Steel.**

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

**PEACOCK BROTHERS, Canada Life Building, MONTREAL.**

# MARITIME MINING RECORD.

ISSUED ON SECOND AND FOURTH WEDNESDAY MONTHLY.

The organ of the rapidly expanding Coal Trade of the Maritime Provinces.

It covers the entire field, and that adequately.

There is no better medium in the Dominion for "Supply" men, whether they be makers of Fans, Pumps, Engines, Boilers, Wire Ropes, or, in short, of any kind of Mining Machinery needed for the extraction and preparation of minerals, or if they be producers or agents for the numerous articles that enter into consumption at the collieries.

The Record is always consulted on all subjects, and its advertising columns are carefully scanned by Directors, Managers, and Purchasing agents.

**Advertising Rates are Moderate**

AND FORWARDED ON APPLICATION.

Every Coal Company of any standing is a patron of **The Record**.

## 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.

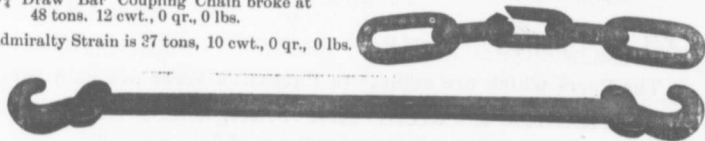
**Makers of every description of Chains**  
for Mining and all Engineering Purposes,

**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 27 tons, 10 cwt., 0 qr., 0 lbs.



Draw Bar for Coal Car.

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

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

# DOMINION COAL COMPANY, LIMITED.

Miners and Shippers of the Celebrated

## "DOMINION STEAM COAL,"

Gas Coal and Coal for Household Use

from the well known seams

'Emery,' 'Phalen,' 'Harbour,' 'Victoria' and 'Hub.'

**12** Collieries  
in Operation.

**OUTPUT:**  
3,500,000 tons Yearly

Used by Railways, Tramways, Steamships, Manufacturers, Water Works, Light and Power Stations in Ontario, Quebec and the Maritime Provinces, also in Newfoundland and the New England States, Mexico, Sweden, South Africa and the West Indies.

**Shipping Piers** equipped with modern machinery,  
ensuring Quickest despatch

—AT—

SYDNEY, LOUISBURG, and GLACE BAY, Cape Breton Island, Nova Scotia, Canada.

**7000 ton Steamers Loaded in 7 hours.**

Special facilities for loading and prompt despatch given to sailing vessels and small craft. Box Car Loaders for shipments to inland points. Discharging Plants at Montreal, P. Q., Three Rivers, P. Q., Quebec, St. John, N. B. and Halifax, N. S., Capacity up to 1000 tons per Hour.

**BUNKER COAL.** The Dominion Coal Co. has unsurpassed facilities for Bunkering Ocean going steamers the year round. Steamers of any size promptly loaded and bunkered.

**IMPROVED SCREENING FACILITIES** at the Collieries for the production of Lump Coal of superior quality for Domestic trade and Household Use.

FOR TERMS, PRICES, ETC., APPLY TO

**Dominion Coal Co., Limited,**

" " " "  
" " " "  
" " " "

Glace Bay, Nova Scotia.

112 St. James St., Montreal, P. Q.

171 Lower Water Street, Halifax, N. S.  
Quebec, P. Q.

AND FROM THE FOLLOWING AGENTS:

R. P. & W. F. Starr, St. John, N. B.

Peak Bros. & Co., Charlottetown, P. E. I.

Harvey & Company, St. John's Nfld.

Hull, Blyth & Co., 4 Fenchurch Avu., London, E.C.

**G. H. Duggan,**

2nd. Vice-President and Gen'l Manager.

**Alexander Dick,**

General Sales Agent.

GENERAL OFFICES, GLACE BAY, NOVA SCOTIA, CANADA.

# 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

Mined in the Province.

Mines

SPRINGHILL

N. S.

Head Office

MONTREAL