

MARITIME MINING RECORD AND COAL AND METAL TRADES JOURNAL

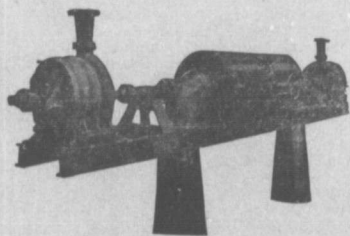
Dr. R. Bell
Geol. survey dept.

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New Series Vol. 10 No. 14 January 22nd, 1908 STELLARTON, N. S.

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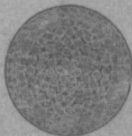
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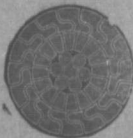
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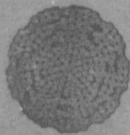
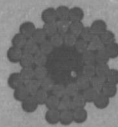
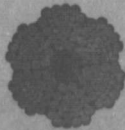
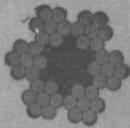
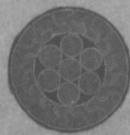
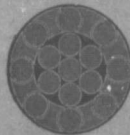
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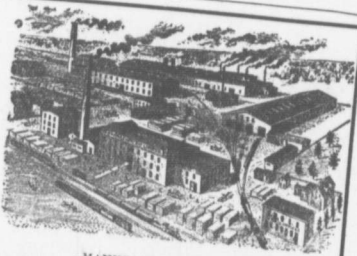
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22 Mixed for Mulgrave	8 30
19 Express for Sydney	11 15
28 Mixed for Pictou	11 15
56 Mixed for Truro	11 15
129 Mixed for New Glasgow	12 55
83 Express for the Sydneys	16 50
30 Express for Halifax and Montreal	16 50
140 Mixed for Pictou	18 25
181 Mixed for Pictou Landing	18 25
22 Mixed for Ho swell	18 45
59 Express for Halifax and St. John	18 50
27 Express for New Glasgow	21 30
66 Express for Pictou	21 35

—TRAINS ARRIVE AT STELLARTON

79 Mixed from Hopewell	6 30
61 Express from Pictou	6 55
18 Express from New Glasgow	7 35
21 Mixed from Hopewell	7 35
22 Mixed from Truro	7 55
28 Mixed from New Glasgow	8 00
57 Express from Pictou	10 55
56 Mixed from Mulgrave	10 55
19 Express from Halifax and St. John	12 55
129 Mixed from Pictou	12 55
83 Express from Halifax and St. John	14 00
30 Express from Sydney	15 15
22 Mixed from Pictou Landing	16 45
77 Mixed from Hopewell	18 30
62 Express from Pictou	18 30
66 Express from the Sydneys	19 45
17 Express from New Glasgow	19 45
27 Express from St. John and Halifax	21 40
66 Express from Pictou	21 45

Buffet Sleeping cars on trains 25 and 26 between Halifax
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Screens, Screen Bars, Screening Plants Complete,
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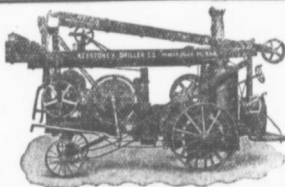
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The KEYSTONE Percussion Core Drill Attachment is an economical appliance for TESTING COAL LANDS.

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

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

Price of Complete Attachment
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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 quality of the water, and the fact that of all the pumps I saw there two out of three were Jeannesville Pumps."

An indication 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.

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Iron Works Co.,
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Mines of Gold, Silver, Coal,
Iron, Copper, Lead, Etc.

Titles direct from the Crown
At Moderate Royalties.

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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. Lenses 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.

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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
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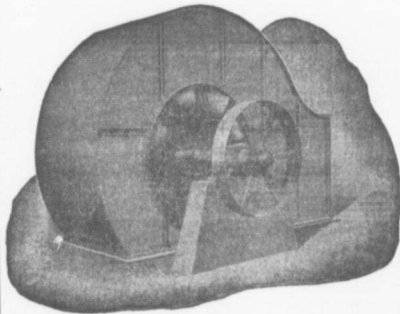
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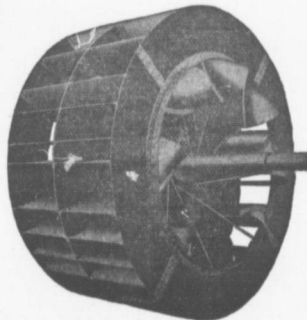
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A RECORD BREAKER.

The Jeffrey
Centrifugal Mine
Fan



IT DEVELOPS
Larger Volume at Low Speed and
larger capacity against high
gauges, than any other fan made.

—It will pay you to Investigate.—

THE JEFFREY MANUFACTURING CO.,
COLUMBUS, OHIO, U. S. A.
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REPRESENTATIVES

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

Important Notice.

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

The men are taking more kindly to the safety lamps introduced in International mine in Dec. At first there was a noticeable decrease in the output, the men declaring they could not do their work properly with them, but with their use the men are getting accustomed to the less light and the output is now about normal.

MARITIME MINING RECORD

Voi. 10, No. 14. Stellarton, N. S., Jan. 22nd 1908. New Series

THE SPLIT AIR QUESTION.

'Practical' writes:—It was my intention not to carry on the argument about the split air question any further, but after reading Mr. Baird's last I would like to say a little more on the subject. What he says about not allowing a draw does not effect me in the least; if he considers he is right let him go ahead. I am still of the opinion that he is wrong. The question worked out by the accepted formula gives a quantity of 69,000 cubic feet of air as the answer. This is equal to an increase of 39,000 cubic feet on the original quantity of 30,000 cubic feet which was passing in the original single airway. Mr. Baird's solution gives as an answer 29,000 cubic feet after the air was split into the three airways, or a decrease of 1000 cubic feet on the original quantity. I could never see how he got this quantity, but I have seen practical tests enough to be sure that the change would result in an increase and not a decrease in the quantity of air circulating. In his last article on the subject Mr. Baird asks me if the question stated that all the pressures had to be the same on the splits and says that he proved they were different. The question certainly did not mention pressures at all, but I have proved to my own satisfaction that the pressure cannot differ under the conditions named in the question. I have taken watergauge readings in the main splits into different seams in a shaft; I have taken them in splits off a main intake air-course, and I have taken them in the lesser splits in the inner workings of the mine. I have also tried the same thing on steam lines, water lines and compressed air lines, and I never knew the rule to fail in any single instance. Further, I never found the pressure on any one main aircourse to be divided, between the splits as it would appear to be in this case, since Mr. Baird added all the three pressures together to get the total pressure. Again, Mr. Baird admitted that his own observation showed the pressures on splits to be equal, and to make matters even worse, he proved, or claims that he proved, the pressures to be different by taking the incorrect quantity of 69,000 cubic ft. instead of the quantity of 29,000 cubic ft. which he claims to be correct. Why did he not prove it with the smaller quantity if it was the correct one? Now I am asked to work out another split question and compare results. I fail to see where the comparison comes in as the conditions are entirely different and I must refer Mr. Baird back to the reply I made to his former question about what took place when air was split in a mine. I do not consider the question to be as simple as Mr. Baird says it is, and I would not consider it a fair question for an examination. Perhaps he may retort that I cannot work the question, but that will make no material difference to the question under dispute. I do not intend to take up this subject again as I have no hope of getting at a satisfactory result so long as we stand at a dead-lock with regard to the pressures. Since we cannot agree on this

point it would only be getting further away from an argument, to commence arguing on the last question Mr. Baird asks me because the very same point comes in it and all split questions.

THE SPRINGHILL CONCILIATION BOARD,

—LIME LIGHT REPORT.—

Springhill, it may be said, is on the tip-toe of expectation as to the possible outcome of the action of the late conciliation board.

The Board met and took the evidence of the men in the case. The management took no part in it whatsoever, totally ignoring the whole proceedings.

The action of the Labor department, in its make up of the Board, would of itself justify the Company in taking this course, even were there no other considerations.

How does the following strike business men as a possible Conciliation Board? When apprised of the application for the third Board and its object, the Company refused to have anything to do with it, and declined, of course, to appoint an arbiter. The Department then appointed one; a good man, no better, but one who, it is said, had refused to act on a previous Board. Doing his whole duty he could not object in this case.

The workmen's Agent and the Government's appointee, met to choose a chairman. The Agent chose a former chairman. The Gov't. man objected to him, and named a man, a Judge of the province, a man whose ability, impartiality, honesty and integrity, are unquestioned. The Agent objected to him. The DEPARTMENT then stepped in and APPOINTED THE AGENTS CHOICE. Thus the Board was formed.

The Board met on the 7th. inst. Its importance could not be questioned, to judge by the solemn looks of some of the participants. But they were there for a purpose—as the French cook said as she prepared the Blanc Mange—with Eau D Cologne—only there was nothing so sweet in this business.

The first effort of the witnesses was to make it appear that the mine officials were whited sepulchres, nothing less. A learned discussion on the specific gravity of Bituminous coal in general, and Spainghill coal in particular, next ensued.

The Board ordered two of the lone representatives to procure the cubic contents of a mine car. They went willingly and returned hurriedly; a miscalculation was the result. Still the investigation went merrily on, and the scale case ended with a few consolatory remarks from the chairman. The Schedule question was then taken up by the Board. The workmen had a schedule, one made out by themselves. The Company would not sign it, therefore there was nothing for this, or future generations to stand or build on, and there was much evid-

ence why this should not be so. The Board sympathized and the Schedule case closed.

The Stone question was then introduced. The chairman demurred but the Intelligences opposed to him were not taking any chances on demurrage. They wanted to sail and they did. He was helpless, so permitted it. A rehearsal of the stone question followed, with variations. The impression made by the unopposed fair stories was hard to get at by the expression on the faces of the Board. Suppressed amusement was the most noticeable. However as politics was in the ascendant, and legal knowledge obscured, the poor down trodden workmen were assured that they would receive every consideration in the case.

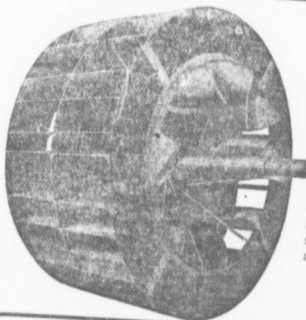
It was rumored that most of the evidence was taken behind closed doors, but probably this is wrong. The

doors were always open when one visited the P. W. A. meeting in the Y. M. C. A. audience chamber. It was all open above and even beyond—Board. This sitting was not—as a worthy brother once said—like a tribunal of justice. Everybody could say anything they liked, and as much as they liked. The young fellow that presided made himself solid with the boys during his stay amongst them. The Commissioner was in great form though prone to quote scripture apropos of many of the trite sayings of the witnesses. The Agent was disposed to be very critical, and drew out many facts that the extreme modesty of the C. W. M. and their manly desire not to injure any one—look you—would have kept to themselves. After a consultation with the principals as to the form the award should take, the Board adjourned—sine die.

THE JEFFREY CENTRIFUGAL FAN.

The failure of existing methods of mine ventilation to prevent gas from accumulating, especially in remote workings, has been so recently and repeatedly emphasized, that no improvement in ventilating appliances, or methods should be disregarded by the operator of a mine in which possible danger exists.

Of special interest in this connection is the announcement of a new centrifugal mine fan made by the Jeffrey Mfg. Co., of Columbus, Ohio, for which they claim remarkably high efficiency, as indicated by the accompanying table. These results are obtained from a fan 10 feet in diameter by 5 feet wide, two illustrations of which are shown, and which has been installed for purposes of demonstration at the company's works in Columbus.



Fan Discharging into Free Air.					Outlet Closed.		
Rev per Minute	In. Gauge	Wtr. Disc'ge	Vel. of Air Feet per Min.	Vol. No. Cu. Ft. Per. Min.	Volumetric Efficiency.	In. Water Gauge.	Manometric Efficiency.
50	0.15	34	1530	52 020	265 per cent	0.22	67 per cent
100	0.6	34	3070	104 380	266 "	0.9	68 "
150	1.4	34	4700	159 800	271 "	2.0	70 "
200	2.5	34	6280	213 520	272 "	3.6	71 "
250	3.8	34	7750	263 500	268 "	5.3	72 "
300	5.6	34	9390	319 260	271 " "	8.0	70 "

The above showing would indicate that the manufacturers' are fully justified in claiming that it possesses greater volumetric capacity than any other fan yet offered.

The special features which give this fan large volumes at slow speeds and a large capacity against high gauges are the concave, curved, vanes which discharge the air in a true radial direction with no dragging effect on the wheel, and the conical scoops which are features of no other fan, and which, by their special forms and positions, prevent the gushing of air from the inlet.

The fan is made entirely of steel mounted on a hammered steel shaft with accurately machined cast iron hubs, and is held rigid and true by adjustable stay rods which offer no obstruction to the free inlet of air. Another advantageous feature is the steel casing which extends to the ground line, eliminating the large amount of masonry usually required with fan installations.



AROUND THE COLLIERIES.

Dom. No. 1 colliery is in good shape for a big output this year if all goes well.

Shipments are still actively in progress from Sydney Harbor. Up till the middle of January there was nothing to interfere with shipments, in the way of ice.

The Emery, at Reserve, or Dom. No. 10 did better during December than in previous months, by 100 tons per day. The prospects are good for a gradual increase until May next, when about 800 to 1000 tons per day should be raised.

Double shift after all may not be what it is cracked up to be. Dom. No. 5 or Reserve went on single shift on the 1st. of December, and yet during the month the output was 500 tons per day more than it was calculated it would be with one shift off.

Mr. Jones of the Steel Co. is rather hard on the Privy Council. In a despatch to the Chronicle he is made to say: "The Nova Scotia judges have shown their usual good sense, (is this slobbering as defined by Judge Meagher) and it is to be hoped the court to which the appeal is taken will take the same common sense view." Isn't that a reflection on the general attitude of milords.

There have been no reports in the press recently from Antigonish Co. in reference to coal. At Big Marsh there is plenty of material, but what if it should be laminated in even more directions than the coal of No. 6 was declared to be. An analysis of coal may determine the quantity of ash, but it needs more than a mere chemist to determine the extent and number of the laminations. The first thing modern prospectors should do is to endeavor to ascertain the quantity and the quality of the laminations.

There has been some discussion in the papers of late in reference to the number of Norwegian steamers engaged in the coal trade. Much of the discussion does not touch the heart of the subject. Schooners are not now so important a factor in the coal trade as in former years and without a class of large coal carrying steamers there would not have been anything like the progress made during the last score of years. Norwegian steamers get the preference because they have been specially designed and built for the coal and iron ore trades. It is said Norwegian steamers are chartered because they are the cheapest. Possibly, but there is another reason, British built colliers cannot be chartered at the present for the reason that the British coal export trade taxes that class of craft to its utmost.

"Centralization" may be a good thing on the whole, but it has its occasional drawbacks. For instance: On the 21st. Dec., the day of the lamentable explosion at Dom. No. 2,—the cause of which has not been ascertained though an official enquiry was held by Mr. Donkin—no fewer than six collieries were thrown idle for the want of electric current, as at Dom. No. 2 is situated the central power station. There being no steam there was no electricity.

Mr. Lorne C. Webster has been elected representative of the shipping interest, on the Quebec Harbor Board, to fill the vacancy caused by the death of Mr. Felix Carbray. There was a spirited contest Mr. Webster winning out by a majority of seven. The late Mr. Carbray was Quebec Agent of the Nova Scotia Steel & Coal Co., and while Mr. Webster succeeds Mr. Carbray on the Harbor Board he also succeeds him as coal sales agent in Quebec for the N. S. S. & Coal Co. Mr. Carbray was long associated with coal, and so has been Mr. Webster.

The following are the outputs of the several collieries of the Dom. Coal Co. for 07. It will be noticed that Dom. No. 5 or Reserve apparently gives Dom. No. 2 a hard push for first place, the difference between them being less than 3000 tons for the year. But then it should not be forgotten that the coal from Dom. No. 9 comes out by the way of Dom. No. 2 shaft and is handled on No. 2 bank head. The coal ridged by way of No. 2 over a million tons, thereby we think placing it in the first place in, we may say, the civilized world as a producer. In our estimate of the total shipments for 07 of the company we placed the increase over 1906 at 62,000. Completed figures show that the increase was 89,000. This will have some bearing on the totals from the province and may place 1907 a few thousand tons ahead of 1906 instead of one or two thousand tons behind:—

Side by side we give our estimate of what should be done this year, barring accidents. The Reserve and Caledonia, Nos. 2 to 6 estimates are for single shift:—

Name	Output 07.	est. 0 1908	est. 1 or D
Dom. 1	493 000	550 000	I 50 000
Dom. 2	639 000	750 000	I 110 000
Dom. 3	318 000	400 000	I 50 000
Dom. 4	520 000	500 000	D 20 000
Dom. 5	636 000	550 000	D 80 000
Dom. 6	295 000	300 000	I 95 000
Dom. 7	5 000	275 000	I 270 000
Dom. 8	225 000	250 000	I 25 000
Dom. 9	364 000	474 000	I 110 000
Dom. 10	100 000	200 000	I 100 000
Dom. 12	—	10 000	I 10 000

"This estimate of course may not be reached but the collieries are in a position to put out the quantity estimated, given the opportunity.

AROUND THE COLLIERIES.

It is rather remarkable that the biggest output from any one of the Dom. Coal Co.'s mines last year should have taken place so late in the season as November. In this month Dom. No. 2 sent out 66,000 tons.

There are two ways of putting a thing. For instance: some of the C. B. papers reported the discovery of a 7 foot seam of coal in the Port Morien Basin, by the borers for the Steel Co. The proper thing to have said would have been that "the workers had struck the 7 ft. seam of coal for which they were boring." If the borers discover the Gowrie seam in the basin back of Morien, they will put something to their credit. All the other seams are fairly well defined.

If it is true, as stated, that the government named as chairman of the Springhill Conciliation Board one to whom their own appointee, as arbiter, had objected, will not be surprised to hear some declare that the proceedings were farcical. In so grave and important a matter as the quelling of strife between fifteen hundred men and their employers, the one thing, leaving all other considerations aside, for which regard should be had, by the government, the employers and the employed is the securing of a fair and fearless, honest and honorable decision.

The Springhill collieries are working steadily and things generally are going smoothly much to the regret of one of our local papers and one or two others. We read in a paper lately where an emissary from England had queered the making of rifles by the Ross Manufacturing Co. in such a way that the factory will probably shut down in the near future. Apropos of this, some have come to the conclusion that the town of Springhill has been hood-dood by some Jonah in the last two years, or an emissary from Amherst has been getting in his fine work on the solitary if infantile industry outside of our coal works, that was circulating some money in our town. It has moved to Amherst anyhow.

Though the Record's sympathies are wholly with coal, though our belief is that a fool contract can be annulled; we could have taken judgement against coal complacently, had steel common gone up ten points, and made, thereby, glad the heart of many a weary, waiting one. But what is the use in rejoicing over a verdict which has had no visible effect on steel stock prices? We have it on no less an authority than the financial editor of the Star that the "ticker always tells the tale." Well the tale that it told after the verdict was not one to make people crazy with joy. It was a common place tale indeed. On the other hand had the verdict been for coal that stock would have gone soaring. Steel stock is just as ungrateful as the steel "officials."

Mr. Meissner, formerly manager of the Londonderry Iron Works, who now fills an important position with the United States Steel Corporation, in writing to the Record says—among other things:—"It is always a pleasure to me to read the Record with its pertinent discussions and the news it gives of the old familiar friends and places of past years. . . Remember me to my old friend." Gladly.

In last issue, under 'General Remarks' there was a playful reference to Mr. Higson and prospective outputs from the slopes and the shafts. The allusion might possibly leave the impression on the mind of readers that Mr. Higson actually said he would make a present of curling stones. Mr. Higson did not say so; the Record said it for him, and therein, possibly erred, as Mr. Higson in a nice letter, points out the remark might lead to criticism. The Record's aim is to promote honest rivalry and it our remarks might have an opposite effect we take them back. Had we known that Mr. Higson had resigned from the club no allusion would have been made to curling.

The Dom. Coal Co. have taken several objections to the application of Messrs Moffatt and McNeil for an arbitration board in reference to the dispute now pending as to wages. The objections of course are technical. The company may not be adverse to a board, but it wants to be better informed as to what is wanted. One of the objections is that the application does not state what parts of the company's schedule is objected to. For instance do the lodges object to the increase of wages to the \$1.38 men as well as to the reduction in the pillars. In short the company wants to know what exactly is objected to. At least, if the objections are sufficient to cause delay in the appointment of a Board. It is said Mr. McKenzie King may visit Glace Bay to take in the situation.

THE TIME WILL COME.

When it will be a disgrace not to work when one is able.

When everybody will know that selfishness always defeats itself.

When to get rich by making others poorer will be considered a disgrace.

When the golden rule will be regarded as the soundest business philosophy.

When the business man will find that his best interests will be the best interests of the man at the

When all hatred, revenge, and jealousy will be regarded as boomerangs which inflict.

Air is a mechanical mixture of about 79 parts by volume of nitrogen and 21 parts by volume of oxygen. In addition to these gases, air contains small amounts of carbon dioxide, ammonia, argon and other gases, and also varying amounts of water vapor.

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JAN. 22

COAL—STEEL CASE.

The supreme court to which appeal was taken, by the Dominion Coal Co'y., from the decision of Judge Longley, has decided that the Coal Co'y. had by their contract agreed to supply the Steel company with coal suitable for metallurgical purposes. According to the headlines of the Chronicle and Herald the court unanimously sustained the decision of Judge Longley. That is even so, but reading between the lines it is plain that both the Chief Justice and his "brother" Russel said in effect: "Judge Longley's decision was sound though his premises were shaky." Brother Russel's—having known him before the Chief Justice we suppose we may take the liberty—versatility is phenomenal. As a satirist he has no equal on the Canadian bench; and he does it so nicely and neatly too. Notice how slyly he pokes the trial Judge in the rib in his reference to the word 'communings.' Had he not told us, the most of us would still be quarreling over the corner of the word. Judge Russel says that the learned trial Judge took the expression from a Scotch case. The people at the trial in Sydney thought he took it from the Counsel for Steel who he thought was the author, and now Judge Russel has to break in upon the illusion and tell us the expression 'communings' was coined in Scotland.

If we remember rightly Judge Longley found by 'implication' that coal fit for steel making purposes was to be supplied. Judges Townsend and Russel declare there is no necessity to imply an iota as the contract, on the face of it, plainly says what is meant, and then they proceed to show what an easy matter it is by intricate and elaborate reasonings. We do not wish to lay ourselves open to the charge of 'slobbering' so while saying the Chief Justice is an able jurist we will proceed boldly to offer a layman's criticism on one or two of his observations on clause 3—the storm centre.

After citing clause 3 as follows:—"All coal furnished shall be freshly mined run of mine, reasonably free from stone and shale and shall be supplied from such seams then being worked by the Coal company as the Steel company may designate. The Coal company may after the expiry of four years from the date of this agreement supply slack coal of the same specification as to quality as above if suitable for use in steel making and for blast furnace coke, and may also supply slack coal for other purposes for which it can be used without disadvantage by the Steel company. In

construing the above clause use of slack coal shall not be deemed to be a disadvantage merely because the use thereof necessitates changes in the grate bars of the Steel company. "Suitable" shall be construed to mean that the slack coal so supplied when properly washed by the Steel company shall not contain a percentage of impurities, to wit, ash and sulphur appreciably greater than the percentage of impurities in the same coal of run of mine grade when crushed and washed in the same manner. All coal supplied hereunder shall be washed by the Steel company, and should the steel company operate and establish a coal washing plant between the point of origin of such coal and the Steel company's blast furnaces, the Coal company shall at the actual cost thereof, allow such coal to be washed in transit."—the Judge proceeds to make the following comments:—

"Now if the Coal company were only obliged, as contended to supply the ordinary product of the company's mines, plus the right of the Steel company to designate the seams, it would naturally occur to one reading the contract to ask why the different services for which the coal was to be used were so specifically and minutely set out with checks and guards for the protection of the Coal company, in restricting the quantity which could be called for from time to time, and the materials with which it could be used. Why particularize the blast furnaces, the coking ovens the steel furnaces, etc., as the objects for which the coal was to be supplied? Why did the Coal company put into this specification that they were not in any one month to be required to furnish a quantity of coal exceeding the quantity required to furnish the coal or coke to operate blast furnaces of a capacity not exceeding that of the company's four blast furnaces and to operate the steel furnaces and mills with incidental plant, etc."

The learned Judge to our lay mind fails wholly to grasp why the different services for which the coal was to be used were so specifically and minutely set out. In clause 1 of the contract it is specified for what purposes the coal is to be supplied, viz. "blast furnaces, coke ovens, steel furnaces, rolling and other mills, gas furnaces, mines and quarries, steam vessels and smelting engines." Why should these several services be mentioned, the Judge asks. The answer is very simple, and is, so that the Steel company might not use coal, which it secured at a dollar twenty-eight, or at a price less than it cost to mine, for other purposes than those specified. The Coal company by this clause debarred the Steel company from demanding coal for a cement mill, if it went into that business, or for a chemical work, or a brick work or any other business, not necessary for the production of steel or iron. Had the uses for which the coal was to be put not specifically been named, what is to hinder the Steel company demanding a sufficient quantity to supply all of its workmen. Steel could be as little produced without labor, as without coke or gas. The Judge rather innocently, to our way of thinking, asks: "Why did the Coal company put into the specification that they were not in any one month to be required to furnish a quantity of coal exceeding the quantity required to furnish the coal or coke necessary to operate blast furnaces of a capacity not exceeding that of the company's four blast fur-

naces, and to operate the steel furnaces and mills and incidental plant, etc.?" The reason is obvious, we might say. Remember the Coal company was supplying the Steel company with coal at \$1.28; at a loss, too, remember. It was a sheer impossibility for the Coal company to live by the Steel company alone. In order that it might supply the Steel company with its large monthly demand it had, of very necessity, to supply other customers at a price that yielded a profit. The largest of these other customers could only be supplied in the summer months. It was therefore necessary for the Coal company to restrict the demands of the Steel company, otherwise the other large customers could not be supplied, and if they could not, then neither ultimately could the Steel company, for the Coal company would be forced into bankruptcy. The less quantity the Coal company delivered to the Steel company, while there were other orders, the better for the Coal company, and therefore the restrictions as to quantity. The restrictions had not the most remote reference to quality. Continuing the Judge says—"Again for whose benefit was the washing of the coal put in the contract? If the of the coal beyond the requirements of supplying the coal freshly mined, reasonably free from stone and shale and from the seams then being worked, provision carefully drawn and inserted in clause three that all coal supplied hereunder that requires to be washed shall be washed by the Steel company? Adopting the Coal company's construction of the contract, its obligation was fulfilled when it delivered run of mine, etc., and it had no further concern in the matter."

"It seems obvious that this provision was put in the contract in view of the Coal company's obligations to supply coal for steel making purposes and washing as necessary that everything possible should be done to remove the impurities and make it fit as possible, otherwise it was purely a question for the Steel company, whether it should be washed or not and would have no place in the contract; at least it did not matter to the Coal company. This provision as to washing indicates that the Coal company at the time the contract was made was requiring to be done all that could be done to make the coal fit for steel making and stipulating that it should be done at the expense of the Steel company."

The learned Judge greatly wonders why the Coal company was so solicitous about the washing of the coal. Clause 3 is of peculiar construction, from at least, a layman's point of view. Did the Coal company require of the Steel company the washing of run of mine coal? I do not read that view into clause 3. Taking the *Chronicles* sixteenth line we read "In constraining the above is simply explanatory of the clause. And then at the ninth line from the bottom we read "All coal supplied hereunder." Under what? Not under the clause, but under the explanatory division of hereunder shall be washed by the Steel company. There is some sense in the Coal company demanding that the slack coal shall be washed; there is no sense in its asking that run of mine shall be washed. We take it that the latter, the explanatory part of the clause, refers to slack coal and the Coal company were wise in stipulating it should be washed. Why? Because if not washed it could be rejected as not reasonably free from stone and shale. In slack coal, sent from a mine, there must be more stone and shale, weight for weight, than in run of mine, for the reason that the latter is freed from all visible stone, while it would be an impossible task to pick the latter. The Coal company has appliances to send to market, to the Steel company, to be particular, run o mine coal reasonably free from stone and shale, while it has no appliances to make slack coal as reasonably free. Therefore it required of the Steel company that the slack coal should be washed, so that it would be as free from stone and shale, so that o mine coal would be, if crushed—made small—and washed. For almost any purpose to-day slack coal is not considered readily marketable, or reasonably free from impurities, unless washed. If the coal company had not stipulated for the washing of slack coal then it could not be said of such coal that it was even reasonably free from stone and shale. The construing of clause 3 is as a layman may not be called to order in giving his interpretation. Further if the phrase "ALL coal supplied hereunder" does not apply only to slack coal then it is indeed unintelligible.

Judge Townsend laid special emphasis on the fact that coal had to be washed, indeed his opinion rests wholly upon the belief that the washing of coal made it apparent that the coal was to be suitable for steel making purposes. Judge Townsend asks "What kind of coal did the Steel company want? Of course metallurgical steel making coal. Has that requirement been expressed in the contract. SOME DOUBT might exist on this point but for certain words and terms in the agreement which seems to be decisive." Now what are these decisive words and terms? Now restrictions as to the quantity to be supplied, and the stipulation as to washing. The restriction as to quantity had nothing whatever to do with the quality but for the purpose of preventing the Steel company from demanding a pound more, not of pure coal, but of coal at the ridiculously low price of \$1.28. The restriction as to quantity was put in the contract as we have already in part pointed out to prevent the Steel company "doing" the Coal company by getting coal for other than purely steel making purposes, to prevent its supplying its workmen or bosses or other citizens of Sydney. The No. 1 clause means this, that if by the clause in the 'original' contract the Coal company were bound to supply all the coal the Steel company needed, then not a pound more than what was needed and for the purposes mentioned should be sold.

The other point the Chief Justice emphasizes is the washing of the coal. He asks for whose benefit was it washed. As the washing applied to slack coal, the Coal company were of course interested in the washing of it so that being washed it could not be rejected by the Steel company as being not reasonably free from stone and shale. The washing of the coal could only, as pointed

out, apply to slack, because it would be farcial to wash run of mine for bunkers, mines and quarries, and steam raising purposes generally. If all coal had to be washed, as the Chief Justice seemingly assumes, how comes it that this case was decided on the quality of coal that never had been washed. If the coal had to be washed, by the Steel company, in order that it might be made fit how comes it that the coal refused, rejected, returned, never was subjected to any such process. If all coal had to be washed then no coal could be condemned till after the washing. Judge Townsend says: "It seems to me to be sufficient to point out these provisions of the contract (the washing, etc.) to show that in terms it provides for steel making coal." As we have pointed out for the Judges premises are susceptible of denial. Further Judge Townsend says: "That part of clause 3 which provides for slack coal after four years in my opinion strongly supports the view I have adopted, first it has to be of the same specification as to quality as the run of mine." Well, what is, according to the contract, to be the quality of the run of mine. It is to be 'freshly mined reasonably free from stone and shale.' That is the standard of the run of mine, and of that standard, no higher nor lower, shall be the slack. The slack is not to contain a greater per centum of ash and sulphur than the run of mine, but as the per centum of sulphur or ash is not named, the per centum of ash and sulphur, whatever it may be, in crushed and washed run of mine, is to be the standard of washed slack.

As we attach considerable importance to this point, let us, even if laying ourselves open to the charge of verbosity, follow it a little further. Suppose the Coal company had not spoken of supplying slack coal at all. In other words suppose clause 3 said "All coal furnished shall be freshly mined run o mine, reasonably free from stone and shale, and shall be supplied from such seams as the Steel company may designate". Here we have the specification of the quality of the coal that was to be supplied for four years. Does it say that it is to be free from ash and sulphur to any given extent: does it say it is to be free from these impurities so as to make it fit for metallurgical purposes? Really it does not. The specification as to quality is precise: "All coal furnished shall be freshly mined run of mine reasonably free from stone and shale." These are the only provisos as to quality. 'But' says Judge Townsend, 'the slack that is to be supplied is to be suitable for steel making, and it would be absurd to suppose that the inferior coal was to be of a higher quality than the standard—run of mine'. While the explanatory clause contains the words 'if suitable for steel making' it goes on to define what these apparently intelligible words really mean, a meaning entirely different from what they would assume without the explanation. The slack coal to be supplied is not after all to be fit for metallurgical purposes in a literal interpretation of the word 'free', but is to be considered 'suitable' if it contains no more impurities than freshly mined, reasonably free from stone and shale, run of mine. If crushed and washed run of mine contains 3 or 4 per cent of sulphur and 10 per cent ash, then slack coal shall be held suitable, as suitable as run of mine, if it does not contain an appreciable larger per centage of these impurities. The standard for run of mine is fixed, and what that standard is, is the stand-

ard for slack.

We have not space to follow the learned Chief Justice's reasoning further, nor can we, if we would, follow Judge Russell in his 'law'. His views, when looked into, are not in consonance with those of his chief, neither, indeed, are the views of the other judges in harmony one with the other though they all arrive finally at the one terminus. Judge Russell does not attach a great deal of importance to the washing business. Referring to the slack, which was not to contain a greater per centum of impurities than run of mine, he says this is perfectly intelligible, 'while yet he is not certain.' He says: "I 'suppose' the danger guarded against here is the admixture with the slack of extraneous impurities which were NOT IN THE COAL as it went over the picking belt." Than Judge Russell there is no more prominent 'Mulum in parvu' in Nova Scotia, and yet, like Homer he wivels nods, most frequently when he is contemplating coal bins. By rights, holding this view of his good qualities we ought to say "quite right Judge, the danger guarded against was June bugs and horse flies, which might make the top of the slack cars their last resting place and thereby contaminate the coal", but instead we will tell the judge that slack coal doesn't go over picking belts, or any such thing; it falls right through the screens into the cars, and the impurities guarded against are not extraneous, but consist of minute particles of stone and shale which came up with the coal from the pit, and which run through the screen bars on the boxes being tipped, and which were impossible of removal except by process of washing. The Morning Chronicle referring to the case says the Supreme Courts interpretation of the contract may be right or it may be wrong. We have no halting views; with all our high respect for the ermine we believe the judges erred in their interpretation.

There may be the excuse, for the faulty construction of an editorial, that it was hastily written; there can be no such excuse for a ponderous legal document over which great thought and time, evidently, were spent. Were we to say that the construction of clause 3 is so perfect that no part of it, possibly, could be misunderstood, we would be displaying a rashness, or boldness, credible only to a county or supreme court judge. We make bold to say that not one in a hundred, unfamiliar with the methods of preparation of coal for the general market, or for special buyers, can give an easy translation of the sentence in clause 3 beginning with the word 'suitable'. Let us quote the sentence to make clear our point:—"Suitable" shall be construed to mean that the slack coal so supplied, when properly washed by the Steel Co. shall not contain a per centum of impurities, to wit: ash and sulphur appreciably greater than the per centum of impurities in the same coal of run of mine grade when crushed and washed in the same manner." We ask the question, "In the same manner as what?" and crave for an answer—"Immediately half a score of hands go up and all reply, "In the same manner as slack" But there are only laymen who reply, and we put the same question to lawyers and several judges, "and strange their reply is similar though a trifle more elaborate, "It means," they say—and then stop, and after a while proceed, "It means that the p cent of impurities in slack are not to

be greater than the per centum of impurities in run of mine when crushed and washed in the same manner, that is in the same manner as slack is crushed and washed; that is as plain as a pike staff." But that is not its intended meaning. Why should slack coal be crushed? The meaning would have been clearer if the words had run "than the per centum of impurities in the same coal of run of mine grade crushed, and when properly washed," or such a small thing as a comma after crushed might have put a different face on the sentence. We bring this up merely to show that the clause is not of the kind of which it may be said, "He who reads may run."

The Dominion Coal Co. has been by the Court in Halifax adjudged guilty of, 1st, not supplying coal of the necessary standard and 2nd, not supplying to the Steel company a sufficient quantity of the good coal of the Phelan seam. Let it be admitted, for arguments sake, that the coal from No. 6, which is on the Phelan seam, does not come quite up to the average, of other coal, and that the company could if they would have supplied good coal. The question then arises "Why did the company not supply the necessary quantity from pits other than Nos. 4 and 6." For the reason that at the very time the Steel company was making demand for increased quantity the Coal company was engaged in a desperate struggle to rush coal which it had contracted to deliver during the open season to St. Lawrence points. The question may here be asked by friends of Steel: Why not let the St. Lawrence shipments 'slide'. For the reason that interference with the St. Lawrence shipments would have involved a very heavy pecuniary loss, a loss which the Coal company could not stand, more particularly as the coal being supplied the Steel company was at a ruinously low price. In the opinion of the officials of the Coal company the Steel company officials were doing their utmost to hamper instead of help them at a crisis. Those who are familiar with the Coal company's side of the story are not inclined to the opinion that the Steel company was the least bit grateful. The Coal Co.'s may or may not have been precipitate in seeking to throw aside the contract, if they were then it was the 'precipitation' of the Steel company that forced them to it. But why should the Steel company be grateful? Because they were getting coal at a price less than cost, at a price which involved, too, additional cost to the consumers, generally, of the province. The Steel company should not have exacted its pound of flesh, even if the bargain admitted of that, for a reason referred to in another column and which we wish here to seek to emphasize. If the G. T. R. and the C. P. R., two most sufficient customers of the Coal company, cannot get a quantity of coal, delivered to them at the set times and seasons, the probability is they would go elsewhere for their supplies. Why sell to these railways more coal than can readily and easily be supplied? For the reason that if the railways are forced to go to the U. S. for half their supplies, they may conclude to draw all large quantities to these concerns to lift them partly out of the hole into which the Steel contract has forced them. If, instead of sending 800,000 tons to Montreal, the half of that only was sent, then in order to keep above water the Coal company must appropriate the markets of some other of the companies, or increase the price, to lower province consumers, to such an extent that these would forego intermittent mild protestings, and substit-

ute therefor continuous angry roarings. The public now are paying more, perhaps, than they are aware of for cheap coal to the Steel company; if the Coal company was to lose the patronage of the big railways, through the selfishness or stubbornness of the Steel company, the public would be asked more to pay might lead them to be less sympathetic toward steel.

The Morning Chronicle is very decidedly of the opinion that the Steel-Coal litigation has proceeded far and long enough. It broadly hints, as public interests are involved, that the local Legislature at the approaching session may put its hand on the shoulder of each of the contestants and say 'cease'. Both parties have declared in the past their willingness to come to terms. It is in the arranging of these that the trouble lies. At the present time it is much easier for the Steel company to make an offer than for the Coal company. The Coal company believes it is in the right and may not be willing to admit that the judgement of two courts has settled the matter. Pride may not permit at this time of a ready settlement. It would indeed be pleasing to the province if a way out could be found.

- Rubs by Rambler.

However much Sir Wilfred Laurier may be affected by what the Toronto News terms "the onrush wave of public ownership" our own Premier Murray is not affected by it the least little bit. In Manitoba and other provinces west of the public ownership of telephones, and at big cost secured the Bell Telephone rights. Down here in Nova Scotia while a voice here and there called for public ownership of telephones and even of railways, the biggest shout that went up was for public ownership of coal mines. The evils of the present monopolistic system were violently portrayed and the blessings to come with public ownership as vividly pictured, and still there sticks Premier Murray, immovable as if he had never heard. With great difficulties in the way the Manitoba government has secured the telephone service; with only a few dollars intervening the Nova Scotia government makes no effort to operate coal. Too bad, and so many glorious chances lost. Just think of the vastness of the undeveloped coal areas. Why won't the government go in and possess Antigonish, for instance, and show the dead and alive coal operators of the province how coal can be mined for a dollar a ton and sold for about a dollar and a quarter instead of three that sum. Perhaps Premier Murray has been convinced in some way that there is in Nova Scotia no general or genuine desire for public ownership and least of all for the ownership of working coal mines.

Somehow or other Dominion Iron and Steel stock holders don't enthuse properly after a verdict favorable to steel is given. Last fall when Judge Lodgley delivered his now famous decision in favor of steel one might have expected to see steel fly up. Instead of that it actually flew down

two points or so. On Monday forenoon of last week twenty-four hours before the decision, steel sold as high as 16½, and on Tuesday afternoon a few hours after the decision of the Supreme Court was made known 15½. It looks to me as if the ones who are not deeply peculiarly interested in steel, the pressmen, and the ladies, are the ones who go into raptures and express joy over decisions favorable to steel. The steel victory may cause joy to Mr. Plummer but it cannot be a source of great heart movings to the common, ordinary and moderate stock holder. If steel had jumped up ten points, and not simply jumped to its former scarcely elevated position, then those who have been holding on to their stock bought at seventy, might have had gladdened hearts with new hopes, and obeying scripture I might have rejoiced out of pure sympathy, but what is there to be glad at over an insignificant betterment. The judgement puts into the pockets of steel two million dollars—more or less, metaphorically,—if you will. Well that should mean about ten per cent. interest on the common stock. Ten per cent on steel selling as high as 25 would yield forty per cent. interest making it by far the best interest paying stock on the market. How then does the price stick at so low a price as 17? It must be that the purchasing public is not quite sure that the bird is not still in the bush. It must be that the public believe that there is something unreal, elusive about that two million or more to be transferred from the till of the Coal Co.'y. to the coffers of the Steel Co.'y. Some of us have so much of the old Adam in us that, if we really thought the two millions would materialize, we would immediately sell all we possess and dip again in steel, though it nearly drowned not a few in the past.

BETTER SURROUNDINGS.

"In other industries it has been found that in order to have good men it is necessary to raise good men. So it will be in mining. The great manufacturers, power and transportation companies are providing technical training for their young and ambitious employees, and in this way they are not only increasing the efficiency of the men they already have, but they are offering an inducement that draws the best resources from other sources. Their example should have the attention of the mine operators. Practical training schools in the mines are possible and night-school training ought to be made available. Then, too, a very small expenditure in enriching the social life of the men would likely yield good returns. It is not what a man earns, but what he gets for it that counts. There is room for much improvement in the physical, social and educational environment of the men at the mines; and when a beginning is made on this improvement, there will be a change for the better in the character and efficiency of the miners."

FORMATION OF IRON ORE.

Most iron ores have been formed by water containing oxygen and CO₂ in solution, which had

percolated downward from the surface. Ores thus formed were, therefore, restricted to the comparatively limited depths to which water would carry down these gases. On the theory, however, that these ores were primary segregations from deep-seated igneous rocks, there need be no limit to their depth. They would rather tend to increase in size downward, while maintaining, or even improving, in the richness of their metallic contents. For these bodies might be regarded as fragments of the metallic barysphere which had broken away from it and revolved around it like satellites floating in the rocky crust. Of this conception these ore bodies would be of great interest to the student of the earth's structure as their existence would be reassuring to the ironmaster, haunted by constant predictions of an iron famine at no distant date.

Intercolonial Railway.

—TENDER—

Sealed tenders addressed to the undersigned and marked on the outside "Tender for Kenos Bridge" or "Tender for Pine Tree Bridge Masonry," as the case may be, will be received up to and including WEDNESDAY, FEBRUARY 5th, 1908.

Plans and specifications may be seen at the Office of the Station Master at Ingleton, N. B., and New Glasgow, N. S., and at the Chief Engineer's Office, Moncton, N. B. at which places forms of Tender may be obtained.

All the conditions of the specification must be complied with. D. POTTINGER
Railway Office, Moncton N. B. Jan. 16th '08. General Manager.

DEPARTMENT OF RAILWAYS AND CANALS CANADA.

Intercolonial Railway

NOTICE RE LEASING OF OLD CAR AND WORK SHOPS
MONCTON, N. B.

SEALED TENDERS addressed to the Secretary of the Department of Railways and Canals, Ottawa, marked "Tender for leasing car and work shops," will be received until 10 o'clock of the FIFTEENTH DAY OF FEBRUARY, 1908, for the acquiring under lease, of the car and work shops with Railway sidings, (at Moncton, N. B.) as designated on plans to be seen at the office of the Secretary of the Department of Railways and Canals, Ottawa, and at the office of the General Manager of the Intercolonial Railway, Moncton; the lease to be granted to cover together with the general terms and conditions in such cases, the following:—

1—Term 21 years rental named, with right of renewal for second term at such rental and upon such conditions as the Governor in Council may then determine.

2—Occupation and use to be bona fide for an industry that will yield a reasonably steady traffic for the railway, the character and prospective output of which industry to be designated in tender and the operation of which to be commenced within one year from date of Lessee acquiring property.

3—That yearly operation shall be of such an extent as to continuously employ not less than 300 employees. Each tender must be accompanied by a certified bank cheque for \$10,000.00 payable to the order of the Minister of Railways and Canals to be held by the Department, in case of the successful tenderer, until such time as the then lessee has duly installed on the premises for the operation of the work to be carried on under lease, machinery in value to the sum covered by said cheque, of which value the Minister aforesaid shall be the sole judge and at which time to be duly returned to the Lessee by the Department.

The highest or any tender not necessarily accepted.

By order L. K. JONES, Secretary,
Dept. of Railways and Canals, Ottawa, January 7th, 1908.
Newspaper inserting this advertisement without authority from the Department will not be paid for it

The oldest and most typical profit sharing concerns are Leclair & Co., house painters and decorators, in Paris. In this concern profit sharing was started in 1842 and has continued ever since. Leclair withdrew in 1870 and turned the entire management over to the men. The concern now employs 1,400 men, and in all the ups and downs of France and of Paris it has remained unshaken. The Godin Co., at Guise, France, employs 1,700 men in its iron works. Since Godin's death in 1888, his capital has all been paid off and the concern is now owned and controlled entirely by the employees.

There are in France and England a considerable number of well established profit sharing concerns and a large and growing number in the United States.

It may well be argued that it is a wiser disposition of the surplus profit to distribute it among those who have a part in making it, than to invest it for additional profit making or give it away in large sums to institutions. The individual employees need it for old age or for the family in case of death or in the purchase of a home.

Nearly all thoughtful captains of industry, in common with other citizens, view with anxiety, the growing disproportion of corporation and individual wealth and the number of wage earners who own no property and live from hand to mouth. If we should choose to look ahead another twenty years and count on such a growth of disproportion and such a growth of the feeling against it, as we have in the past twenty, we are not borrowing trouble when we look for breakers.

There is enough for all and robbing none, if reasonably distributed. Money makers are as fair minded as the members of any other class on the average. They are not hard hearted. Many of them ardently wish for a better distribution, the difficulty lies in adopting a plan different from the established one. The profit sharing plan is very simple. It interferes not at all with the ordinary methods of the business, takes away nothing that the profit maker needs, takes none of the spirit out of the game, and need not take any active capital out of the business.

It is now regarded as an undue innovation. There should be a growing number of profit sharing concerns in this country.

POWER IN MINES.

Time was, and it is not so very long ago, when at collieries, for instance, a considerable part of the output of coal was used for the purpose of raising steam to operate the various engines and other machinery of the mine. This percentage, as the Mining Magazine says, depended, of course, on the construction of the boilers and the other machinery of the mine. For English collieries, for example, this percentage was estimated as varying from

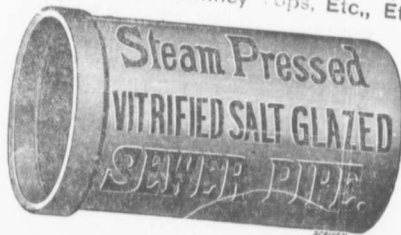
about 3 to 17 per cent. by various witnesses examined by the Royal British Commission appointed to ascertain the coal resources of Great Britain. Metalliferous mines were no exception to the rule, and their coal bills also amounted up to a goodly figure. At many mines the mechanical installations for the generation and application of steam were of antiquated pattern, no regard whatever having been paid to fuel and steam economy. Apparently, it was considered that anything would do in the line of machinery if it was only cheap enough. This mistaken application of economy has had very disastrous effects upon the financial returns obtained from many a mine. In the imposing structures which serve as central power stations at large modern mines all this is changed. Large steam generators of the most improved type, fitted with all the modern appliances, bring the amount of fuel consumed down to a minimum. The most modern forms of engines, with all the auxiliary apparatus needed to make them as economical as possible, are installed. The steam turbine, which has within late years come prominently to the front as an efficient machine, economical in steam consumption and advantageous in a good many ways, has been tentatively applied in several instances, especially on the continent of Europe, and has given very good results. In other instances the experiment has been made to operate central mine power stations by waste gas from coke ovens, of which the modern types produce a certain surplus which is not used for heating the ovens themselves, and therefore formerly went to waste. There is no doubt that the future will see a development of these large gas engines corresponding to that which has been brought about by the application of blast-furnace gas to gas engines in iron and steel works, and has given such excellent results. It is quite certain that the gas engine in the iron and steel industry has come to stay, and it may also find an important place as a prime mover in the central station for mine work.

The Standard Dr. in Pipe Co.,

LIMITED.

New Glasgow, Nova Scotia,
MANUFACTURERS OF

Sewer pipes, Culvert pipes,
Flue-Linings, Chimney Tops, Etc., Etc



WIRE ROPES.

R. S. NEWALL & SON, LIMITED,

LINACRE, LIVERPOOL,

and at 19 Royal Exchange Square,
GLASGOW.

MANUFACTURERS OF ALL DESCRIPTIONS OF

WIRE ROPES FOR MINING

AND OTHER PURPOSES.

Priestleys

Mohairs

— and —

Lustres

Have Excellent
Wearing Qualities.

WILL NOT COOKLE
:: WITH RAIN ::

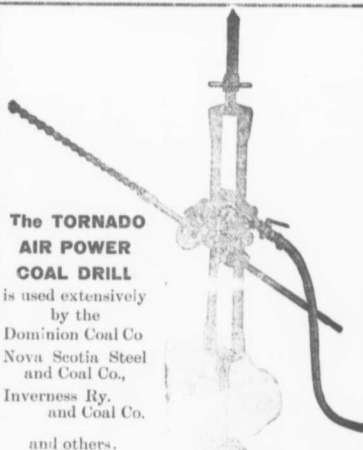
Best for

SPRING AND SUMMER
SHIRT WAIST SUITS.

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

HEAT UNITS.

The quantity of heat is measured by units on the amount of heat required to raise a given weight of water to a given temperature. There are two heat units in common use—the British thermal unit and the calorie. The British thermal unit (abbreviated B. t. u. or B. T. U.), is the amount of heat required to raise the temperature of 1 lb. of water 1 degree F. at its maximum density, which is at or near 38.1 degree F. The calorie, or French unit, is the amount of heat required to raise the temperature of



The TORNADO AIR POWER COAL DRILL

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

and others.

Herzler & Henninger Mach. Works

Manufacturers of

H. & H. Coal Cutters & Tornado Coal Drills
Belleville, ILL., U. S. A.

1 kilo (2,2046 lbs.) of water 1 degree C. (1.8 degree F.). One calorie is, therefore, equal to 3.968 B. t. u. If it is desired to convert calorific values of fuel expressed in calories to British thermal units, multiply the number of calories by 1.8 and not by 3.968. The reason for this is that the B. t. u. is based on heating 1 lb. of water and not 1 kilo or 2.2 lbs. of water, though 1 degree F. and not 1 degree C. The pound calorie is a unit sometimes used, and is the amount of heat required to raise the temperature of 1 lb. of water 1 degree C.

CURTIS'S & HARVEY, LTD.
Manufacturers of all Descriptions of

...EXPLOSIVES...

BEST QUALITY ONLY.

Blasting Powder and Compressed Pellets, Dynamite,
Gelignite, Gelatine Dynamite and Blasting Gelatine.

PERMITTED EXPLOSIVES.

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

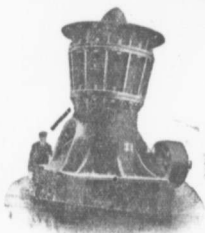
Bobbinite, Curtisite, Excellite, Kolax, Rippite, &c., &c.

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

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



PERFECT GYRATORY
STONE CRUSHER.



CAST STEEL
BRONZE BUSHED.
SELF OILING

WHEELS & AXLES

WE MANUFACTURE
CRUSHING ROLLS,
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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.



Synopsis of Canadian North-West.

Homestead Regulations.

ANY even numbered section of Dominion Lands in Manitoba, Saskatchewan and Alberta, excepting 8 and 26, not reserved, may be homesteaded by any person: the sole head of a family, or male over 18 years of age, to the extent of one quarter section, of 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 homesteader.

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.

W. W. CORY,

SYNOPSIS OF CANADIAN NORTH-WEST MINING REGULATIONS.

COAL. Coal lands may be purchased at \$10 per acre for soft coal and \$20 for anthracite. Not more than 250 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 ind. vidual, and from \$20 to \$100 per annum for a company according to capital.

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

The fee for recording a claim is \$5.

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

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

Placer mining claims generally are 100 feet square; entry fee—\$5 renewable yearly.

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

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

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

More Miners Wanted

Wanted by the Maritime Coal Railway and Power Co., Limited, at CHIGNECTO, N. S.

50 Miners and Helpers.

Apply to **JOHN A. ROY**, Mine Manager

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

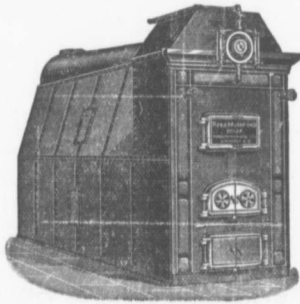
having taken over the business of the Stellarton Brick and Tile Co'y, and having installed more powerful and modern machinery, WILL BE PLEASED TO ENQUIRE AS TO PRICE AND QUALITY.

Works—SYLVESTER

Head office—STELLARTON.

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

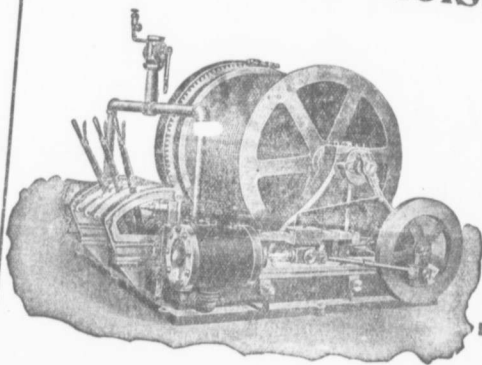
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LOW FIRST COST.
SAVING IN FUEL.
DURABLE, SAFE.

Robb Engineering Co., Limited,
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"Lidgerwood" Hoisting Engines.



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

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

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Contractors to Admiralty and War Office, also Colonial Governments.

ALLAN, WHYTE & C'O'Y.

Clyde Patent Wire Rope Works,

Rutherglen, Glasgow, Scotland.

Cables, A. R. C. (4th & 5th Eds.)
A. I. Liebers and Private.

Wire Ropes

for
Winding & Haulage
in
Collieries and Mines.

Specially
flexible for Ore & Coal Discharging Cranes, Winches, etc.

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

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

—Different Sizes and Qualities kept in Stock—

CAPE BRETON COLLIERY.

NEW CAMPBELTON CAPE BRETON N. S.

SUPERIOR



SAFE AND CONVENIENT SHIPPING PORT

The Nearest Coal Port to Newfoundland Just inside Entrance Great Bras d'Or.

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

- - J. T. Burchell Manager.

INVERNESS IMPERIAL COAL

INVERNESS RAILWAY and COAL COY.
Inverness, Cape Breton.

Miners and Shippers of INVERNESS (BROAD COVE)

Screened, Run-of-Mine Slack.

—First Class both for Domestic and Steam Purposes.—

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

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

INVERNESS RY. & COAL CO'Y

Time Table No. 23. Taking effect at 1 a.m. OCT 13 th. 1907.

EASTBOUND		STATIONS.	WESTBOUND	
Read Down	No. 54		Read Up	No. 51
No. 52	No. 54		No. 51	No. 52
a. m.	p. m.		a. m.	p. m.
L 10 20	L 3 20	P. UPPER JUNCTION	A 10 20	A 3 20
S 11 01	S 4 25	PORT HAWKESBURY	S 10 43	S 3 27
A 11 30	A 4 08	PORT HASTINGS	L 10 22	L 3 10
	L 4 15	TRON	F 10 17	
	F 4 22	CREIGNISH	S 10 05	
	S 4 38	JUDIQUE	F 9 58	
	F 4 50	CHAIGNOIRE	S 9 52	
	S 5 07	CATHERINES POINT	F 9 49	
	F 5 17		L 9 50	
	A 5 13	PORT HOOD	A 9 06	
	L 5 25	GLENCOE	S 8 45	
	S 5 32	MABOU	S 8 14	
	S 6 28	GLAC DYRE	S 7 59	
	S 6 44	BLACK RIVER	S 7 52	
	S 7 00	STRATFORD	S 7 37	
	A 7 17	INVERNESS	L 7 20	
	P 8 00		S 6 00	

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

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

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MABOU DIAMOND COAL.

Burns and Works like Bituminous;

Looks and Lasts Like Anthracite;

IT HAS NO EQUAL.

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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.

Head Office, Halifax, N. S.

Quick Dispatch.

Mines Office, Port Morien, C. B.

Users of Steam

IF YOU WANT TO SAVE FUEL, Use

B. & W BOILERS, Over 6,000,000 H. P. in use.
Patent Steam Superheaters,
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Mechanical Stokers, Coal Conveyors, Electric Cranes.
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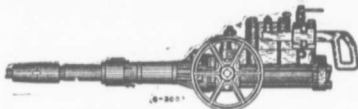
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Loose leaf supplies of all kinds made to order.

175 to 177 GRANVILLE STREET.

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JERSEY - LILY - FLOUR.

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



HARRISON COAL MACHINE.

The first COAL CUTTER to be put on the Market.

The valve is entirely independent of the action of the piston.

Therefore machine will not crowd back on the Runner.

If the Pick should stick in the coal, machine will not travel back against operator.
Machine is simple, rugged and has very few parts.

—ASK FOR CATALOG.—

CANADIAN RAND COMPANY, LIMITED. MONTREAL, CANADA.

Halifax, N. S. Toronto, Ont. Rossland, Vancouver, B. C. Kenora, Ont.

Sullivan Rock Drills.

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

May we tell you why?

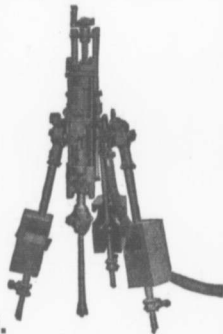
CATALOGUE 51

Sullivan Machinery Company.

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

Claremont, N. H.

Chicago, Ill.



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

"REDSTONE SHEET PACKING,

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

RUBBER BELTING For Transmitting, Conveying and Elevating.

Unequaled for Durability and Power, Transmitting Qualities.

—MANUFACTURED BY—

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

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Unexcelled for Steam, Domestic and General Purposes.

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Quotations Furnished Promptly on Application.

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Steam AND Domestic

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Shipments to all points reached by the
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Offices and Colliery - - - Chignecto, N. S.
DAVID MITCHELL, General Manager.

The BROWN MACHINE COY.,

New Glasgow, Nova Scotia.

Coal and Gold Mining Machinery a specialty

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

Complete equipments furnished for Coal or Gold mines.

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

Estimates cheerfully given

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THE BOILER INSPECTION & INSURANCE CO.
OF CANADA



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

WRITE TO

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

-OR TO-

A. BONNYAN, INSPECTOR
Amherst N. S.

WIRE SCREENS for Every Class of Work.



B. GREENING WIRE CO.
(LIMITED)
WIRE MANUFACTURERS
& METAL PERFORATORS
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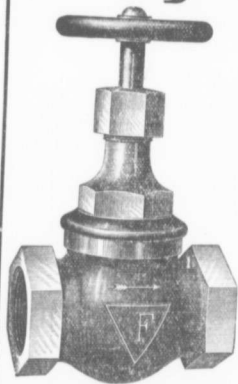
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COAL.**

INTERCOLONIAL COAL MINING CO., Limited,
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MANUFACTURERS AND MERCHANTS SHOULD ADVERTISE IN THE
MARITIME MINING RECORD Rates Moderate.

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Our Business in this Line has been
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Duplex Steam Pumps,
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Cannot be Excelled for **HIGH CLASS QUALITY** and **WORKMANSHIP**
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Makers of every description of Chains
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Coupling Chains and Solid Forged Draw Bars

For Mine Cars, A SPECIALTY.

This 1½" Draw Bar Coupling Chain broke at
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The Admiralty Strain is 27 tons, 10 cwt., 0 qr., 0 lbs.



Edge & Sons, Limited,
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Draw Bar for Coal Car.

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"Codes" A. B. C. and Bedford McNeills"

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COAL COMPANY.

OPERATING THREE
THICK SEAMS
NOS 1, 2 AND 3.

—Miners and Shippers of the Well Known—

FRESH MINED SPRINGHILL COAL

... ANALYSIS ...

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

BEST COAL FOR
LOCOMOTIVE USE.

Delivered By Rail or Water

BEST COAL FOR
GENERAL STEAM PURPOSES.

The year Round
IN Lots To Suit Purchasers.

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DOMESTIC CONSUMPTION.

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Mined in the Province.

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Dominion Coal Company, Ltd.

Miners of

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

—Yearly output 3,500,000 tons.—

ANALYSES.

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

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

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

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

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

:: BUNKER COAL ::

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

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

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

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

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2nd. Vice President