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 New Series Vol. 10 No. 3 August 14th. 1907 STELLARTON, N. S.

**“DOMINION”**  
**Iron & Steel Co’y,**  
 LIMITED.  
 SYDNEY, NOVA SCOTIA.

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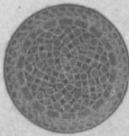
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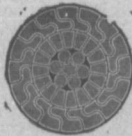
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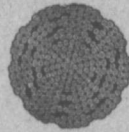
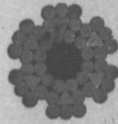
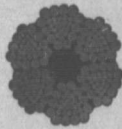
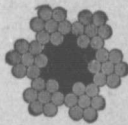
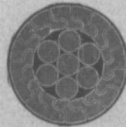
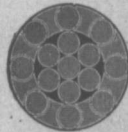
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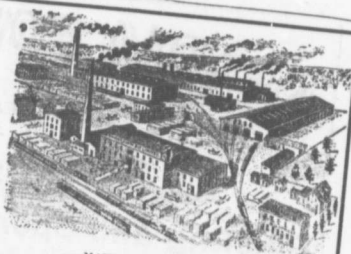
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On and after MONDAY, JUNE 16 1907 trains run daily, (Sunday excepted,) as follows:—

### —TRAINS LEAVE STELLARTON—

No 144 Mixed for Hopewell	5.55
No 79 Mixed for Trenton	6.30
15 Express for Hopewell	6.55
23 Express for Halifax, and St. John	7.40
69 Mixed for Pictou Landing	7.40
54 Mixed for Pictou	7.45
19 Express for Mulgrave	8.30
26 Mixed for Sydney	8.45
56 Mixed for Trenton	10.55
85 Express for the Sydney	11.00
80 Express for Halifax and Montreal	12.35
140 Mixed for Pictou	15.40
103 Mixed for Pictou Landing	16.00
22 Mixed for Hopewell	16.05
45 Mixed for New Glasgow	16.50
46 Express for Halifax and St. John	18.10
17 Express for New Glasgow	18.40
66 Express for Pictou	19.50
	21.15

### —TRAINS ARRIVE AT STELLARTON

79 Mixed from Trenton	6.30
61 Express from Pictou	6.55
18 Express from New Glasgow	7.30
21 Mixed from Hopewell	7.35
53 Mixed from Trenton	7.35
82 Mixed from New Glasgow	7.35
87 Mixed from Pictou	8.05
56 Mixed from Mulgrave	10.35
19 Express from Halifax and St. John	10.40
159 Mixed from Pictou	12.15
85 Express from Halifax and St. John	10.45
80 Express from Sydney	11.52
42 Mixed from Pictou Landing	12.30
77 Mixed from Hopewell	12.30
45 Mixed from Pictou	12.45
86 Express from the Sydney	18.45
66 Express from New Glasgow	19.40
17 Express from St. John and Halifax	21.05
Altitude run by Atlantic Standard time	21.10
O'clock is mid-night, Montreal, N. B. June 15th, 1907	Twenty four

Parlor Cars between Halifax and Sydney. Dining Car on No. 81 train between Halifax and Mulgrave, on No. 39 train between Mulgrave and South River, on No. 14 train between South River and Mulgrave. On 50 train between Mulgrave and Halifax.

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**HIGH GRADE WIRE ROPES FOR  
Hoisting, Haulage, and Colliery Purposes.**

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AUSTEN BROS.—HALIFAX AGENTS.

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STEELCASTINGS  
FORGINGS,  
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Steel Castings for

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Screens, Screen Bars, Screening Plants Complete,  
Car Dumps, Cars, Car Wheels, Larry Wagons, Hitchings, Etc.

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**MERCHANT BARS,  
SHEETS AND PLATES**—From 12 gauge up to 1 inch thick. Any Widths  
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The New Brunswick Provincial Government will give 10 Acres of Land FREE to Coal Miners who will settle at Minto, N. B. The conditions being the erection of a house and the occupation of the land for three years, and working in any of the Mines. For further information apply to **W. C. HUNTER, Manager**, New Brunswick Coal and Railway, (operated for the province of New Brunswick by a Government Commission.) Norton, N. B.

## Coal Miners Wanted

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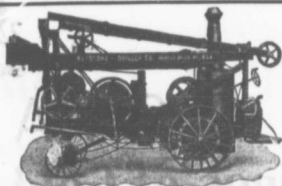
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Percussion Core Drill Attachment  
is an economical appliance for  
TESTING COAL LANDS.

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 going 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 "red" 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 solidity 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.

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

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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. 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.

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**HON. W. T. PIPES,**

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



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

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

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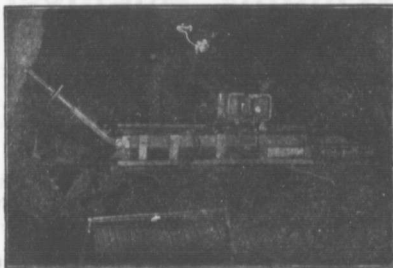
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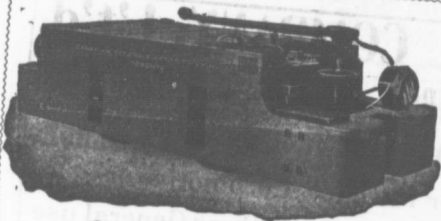
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**Complete Mine Equipment.**

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Motor operated Air Compressors,  
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# WALKER BROTHERS (WIGAN,) LIMITED

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Largest Air Compressors in Canada are of

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REPRESENTATIVES

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

### Important Notice.

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

Reliable crop reports from the Canadian west are optimistic for another year of plenty in cereal production. The aggregate acreage will probably be in excess of last year owing to the large number of newcomers settling in Alberta and Saskatchewan. The acreage in Manitoba is slightly lower than that of a year ago, but it is easily offset by the increase in the other two western provinces.

The....

# MARITIME MINING RECORD

Vol. 10, No. 3. Stellarton, N. S., Aug. 14th. 1907. New Series

## THE RED DEATH.

It is matter for thankfulness that, taken the world over, the percentage of lives lost through mine explosions shows a steady decrease. If one were to take the United States alone, there might not be cause for congratulation, as the six months of 1907 have an unsavory reputation in the matter of mine explosions. In Britain and on the continent the loss of life from explosions is smaller than ten to thirty years ago. More care is being exercised by the officials and also by the workmen. Here in Nova Scotia we have been immune from any startling visitation of the Red Death since 1890. Between the time of the explosion at the Drummond Colliery and that at the Albion Mines six or seven years elapsed, and the time between that latter and the explosion at Springhill was ten years. Within a period of seventeen years, 1873 to 1890, over 200 lives were lost in Nova Scotia in three explosions. In seventeen years, since 1890, there has been no serious explosion in any colliery on the mainland, and no appalling calamity in C. B. And it should not be overlooked that all of our larger mines are much deeper now than in 1890. It might be quite correct to say that in Nova Scotia to-day, the safest mines, so far as likelihood of explosions of gas goes, are the deep mines, and this from the simple reason that much more care and many more precautions are taken. The following graphic description of a'fter damp, was written for the Standard by Joseph Keating:—

All the scientists have been at work trying to thwart this source of wholesale slaughter. They know two things and two things alone are responsible; a large accumulation of gas and a small artificial light. As the work of getting the coal itself produces gas, that evil is inevitable, and as artificial light is necessary to do the work, why, that evil is also inevitable. Taken separately, these things do no harm. But the moment they come together it is the signal that a few hundred simple souls are sent for by God. Red death fills the black roads. It goes raging, blazing round the long galleries, seeking whom it may devour.

It comes out of the darkness with a roar. Its fury shakes the earth. The roof trembles, breaks, and down come the mountains in myriads of pieces. The dust mingles with the great

flames; the volume of fire becomes too vast for the narrow tunnel. The side walls crumble, burst out, and give the blaze more room. The ground rocks under the men's feet; they totter and fall; and the appalling fire-torrent rushes over them.

Every man and boy in the pit cries out with terror. They know that the rolling thunder they hear is the roar of death. Even the horses—there may be three or four hundred of them—understand why the roads and sides are trembling. Then men, boys, and horses rush out. The only way of escape is where the light of day comes down the shaft. That is far away from where they are, and they scream with the horror that is upon them.

Just as they turn the corner of their little roadways to get the main artery, they see the fire. It fills the whole road. It is a great river of red, blue, and green. The gases and dust of the roads give it many colors.

The men, horses, and boys rush out before it. It will overtake them. But they rush on, with the poor hope that they can outrun death.

The long, narrow tunnel becomes a jumble of human beings and animals. The men shout, the boys scream, the horses neigh and snort with terror, and trample on the weaker things. The dust rises in black clouds. By and by that dust will help to make the flames more fierce and strong. Then it will gain on the living mass rushing before it, and men, horses, and boys will lie down, quiet and the fire-dragon will devour them all.

Even if they escape this monster of red death, he has behind him a more terrible power than himself. For behind the flame comes a perfect whirlwind of furnace-hot dust—the scorching blast that follows in the track of every explosion.

A man may escape the fire. In his fright he falls flat upon the ground. The fire in its fury rushes over him without being able to harm him. But the moment he rises he feels about his face something that is at torture heat. It blisters and tears the skin from his cheeks—peels it off—as if he had suddenly thrust his head in a cauldron of molten lead. The agony makes him fall writhing upon the ground again.

That second fall to the ground may prolong his life for a moment. It is the freak of

the molten blast to rush along the roof, and leave the air at the bottom of the road cool and pure. He discovers this. He breathes joyously. The air is pure! But it remains so only for the flash of a minute.

Along comes the worst enemy of all: the poisonous "after-damp." It steals, invisible, through the roadways, at the tail of the blast. It can neither be seen, nor heard, nor felt. It is mysterious. But it is terrible. It brings into the air its invisible dilution of death.

Far ahead of him in the darkness the man sees a faint red tinge along the roof. That is the blast. Its strength is demoniacal. It sweeps before it horses, trams, men, and boys, and crushes them all into one great heap of wreckage. It rushes out with the driving force of a hundred express trains.

Ahead the man hears the carnage-making roar. He rushes back. He thinks he will get at the main road by another way. All over the pit hundreds—out of the track of the blast—are doing the same. They are running along the tunnels, looking for a way of escape. They have escaped the fire. All that remains is to reach the eye of the pit and go up to the light of day.

The next light they see is the light of heaven. The hundreds running along in the darkness begin to feel sleepy and tired. Quite silently, without any of the uproarious behavior of its creator, the after-damp has caught them. Out of each hundred, about ninety-five will die peacefully. They will have no burns, no bruises. Their features will be placid, their cheeks rosy under the black dust. The after-damp kills silently.

And when the searchers come they will find groups of bodies lying on the ground in natural positions—just as if they were merely sleeping. But they are all dead—all dead!

A few minutes before they lie down the men see the little boys fall upon their knees and mumble that they are sleepy. Fathers take their sons up in their arms to carry them home to their mothers. But fathers and sons lie down together in the dust. The mysterious, invisible after-damp has crept into their lungs, and they are sleeping peacefully with the little boys in their arms. Only God can wake them!

A surprising number of officers, non-commissioned officers and men in the army are becoming total abstainers. Mr. Haldane, the Secretary for War, told the Royal Army Temperance Association's annual meeting in Caxton Hall. That meant that people were beginning to realize the enormous waste of moral, intellectual and physical force that drink had led to in the past. Lord Methuen urged the necessity for the establishment of a Temperance room in every barracks.

### FROM THE MINE TO THE MANSE.

It is remarkable how many men who became eminent in the sciences and in commercial pursuits, began their life's work in the coal mine. Those who have read dear old Smiles know that Sir George Elliot; Hunter, the geologist; Berwick, the engraver; Ramsay, the poet, and George Stevenson, the great engineer, were all connected in some way with colliery work. But it was not only in by-gone days that colliers rose from the ranks, by their own industry and perseverance. There are still many of them fitted with the ambition to succeed. Dr. Cadman, of New York, who has one of the biggest churches in that city, and was a pit boy. The number of young men and quarrymen that graduate in the University of Wales is remarkable. No less remarkable is the number of young men at our Nova Scotia collieries who have qualified themselves for the highest positions at our mines. From a late British paper I learn that recently four appointments have been made to the staffs of the Welsh theological colleges. Three of these have been filled by young men who commenced life as colliers. Last week Mr. Joseph Jones, B. A., B. D., of Jesus and Mansfield Colleges, Oxford, was appointed Greek professor at Brecon Memorial College at the age of twenty-nine. When he was twelve he lost his father in a colliery accident, and then worked underground himself until he commenced preaching. He then entered Cardiff University College, and graduated with honors in Greek, and afterwards gained his B. D. (Wales) in the minimum time. Going to Oxford, he won the maximum scholarship of £80 a year for three years at Mansfield; Dr. Williams' Divinity scholarship of £50 for two years, and a scholarship of £60 a year at Jesus College. He has just won the Hall and Houghton University prize in Greek Testament.

The Rev. Thomas Rees, who recently was made Vice-Principal of Brecon, worked underground until he was nineteen. Entering the ministry, he gained his M. A. (Lond.) in six years after leaving the coal mine, and afterwards took his Oxford degree with honors in theology. He was made professor before he was thirty, and is now vice-principal before he is forty.

The Rev. J. T. Evans, M. A., of University of Wales and Leipzig University, has just been elected Hebrew professor at Bangor Baptist College, in succession to the Rev. T. Witton Davies, B. A., Ph.D. He worked in a colliery in the Rhondda Valley until he was twenty. He is now thirty years old.

One of the youngest contributors to Hastings' new Encyclopaedia of Religion and Ethics is Mr. David Phillips, M. A., Cardiff, (late lecturer at St. Andrew's University).

From the coal mine he went to Cardiff University College, and in three years took his B. A. with first-class honors in philosophy. He then entered Trinity College, Cambridge, and gained first-class honors in both parts of the Mental and Moral Science tripos. He has been chosen to write the article on the "Soul" to the above encyclopaedia.

When the mining schools have been enlarged and improved, as promised, and when the Technical College is in operation, our ambitious young miners will have a splendid chance of fitting themselves for advanced positions. And if one is to judge by the zeal they displayed in connection with the mining schools there should be no doubt as to the numbers who will seek to avail themselves of the opportunities for knowledge.

We are losing many secrets in this shoddy age. If we keep on, the time will come when we shall be able to do nothing well. Take, for instance, steel. We claim to make good steel, yet the blades the Saracens turned out hundreds of years ago would cut one of our own blades in two like butter. Our modern ink fades in five or ten years to rust color, yet the ink of mediaeval manuscripts is as black and bright today as it was 700 years ago. The beautiful blues and reds and greens of antique Oriental rugs have all been lost, while in Egyptian tombs we find fabrics dyed thousands of years ago that remain today brighter and purer in hue than any of our modern fabrics. We cannot build as the ancients did. The secret of their mortar and cement is lost to us. Their mortar and cement were actually harder and more durable than the stones they bound together, whereas ours—horrors! We can't even make artificial diamonds now. Old brilliants of French Paste were so beautiful that they could hardly be told from real brilliants by experts. But the secret of this French paste, like a hundred other secrets of the days of conscientious work, is irretrievably lost.

#### A NEW INDUSTRY AND A NEW DANGER.

That the bogs of Ireland would furnish an unlimited supply of peat, and that peat will furnish alcohol, is one of the suggestions made in "Knowledge" by Mr. C. Ainsworth Mitchell, F. I. C. A few years ago the problem of obtaining fermentable sugar on a commercial scale from sawdust was successfully solved and experiments on similar lines with peat as the raw material have recently given promising results. It is well known that when starch is treated with a dilute acid it is converted into sugars and dextrins which can be more or less completely fermented by yeast, and a similar change can be effected, though less completely and with more difficulty, by the action of acid upon cellulose, which forms a chief

constituent of both sawdust and peat. Ordinary peat containing about 62 per cent. of water was boiled for 15 minutes with dilute sulphuric acid in a closed copper vessel under a pressure of three atmospheres, after which the mass was expressed under moderate pressure, and the filtrate neutralized with chalk and separated from the resulting gypsum. It was then fermented in large tuns with a special yeast and a portion of the alcoholic product distilled. The distillate contained 5½ per cent. of alcohol corresponding to a total calculated yield of 75½ litres of absolute alcohol from 225 kilos. of peat. A systematic study of the effect varying the conditions as to the amount and concentration of the acid, the time of treatment, and the pressure will probably lead to a process which shall produce a stronger saccharine solution, and, consequently, a "wash" richer in alcohol.

#### WELSH MINERS.

Mr. Joseph Keating, addressing a meeting of the Cambridge University Welsh Society, gave an interesting picture of social life among the Welsh colliers of Glamorgan, with whose characteristics he displayed a most intimate acquaintance. He said the Welsh colliers were worth studying at the present day, because they were the children of the poets who gave to the world the poem of King Arthur. The lecturer contended that an instance of the Welsh collier's superior quality was that he had a very high standard of living. The ordinary workman in the ordinary industrial community was contented with merely a house to come to, not caring how the place was furnished. The home of the Welsh collier had to be properly furnished, and the height of his ambition was that he should have a chest of drawers, a Bible, and a piano or harmonium. Speaking of the collier's love of music, the lecturer said there were musical geniuses and real poets in the pits at the present time. The present Archdruid himself was a Welsh collier. Some people said he was equal to Swinburne, except that he had not Swinburne's music and more philosophy.

The editor of The Record has not come frequently into contact with Welsh miners, but he has visited and inspected their homes, and any one who has done so must have been impressed with their tidiness, the neatness of the gardens, and the general orderliness about the premises. Some of the miners' dwellings are, as in this country, in rows, and yet at the same time they may be said to be detached cottages. The houses, in one place visited, were elevated about five feet above the level of the streets and twenty feet or so back from the roadway. A stone wall four feet or so high divided the plot in front of each house from the street.

There was a low wall between each house, and each had a separate way to the street. Flowers filled the plots and one was impressed by the general effect.

#### WHAT THE DOCTOR SAYS.

Dr. G. Arbour Stephens, of Swansen, giving evidence before the Departmental Committee of the House of Commons appointed to inquire into the advisability of establishing a working eight hours' day for miners, said the Welsh collier was a better man all round than the tinplater—heavier in weight, better in morals, and a more moderate drinker. The Welsh miner suffered to some extent from bronchial catarrh, but that affliction arose not from the atmosphere of the mine where he worked, but because of a curious custom in Wales of standing at street corners. "The miners of Wales," he added, "are fond of meeting in stuffy rooms and chapels, and that affects their health." The Welsh collier intellectually was a better man than the average English miner.

Professor Redmayne—Better than the Northumberland miner?

The Chairman (Mr. Russell Rea)—Ah, that is another exception. (Laughter.)

The Witness—But they beat the Northumberland miners for music.

The Chairman—The shorter the colliers' hours are the more discontented the men become? Yes, because in the Welsh hills there is nowhere for the miner to go to except the public-houses. The tinplate workers drink more than the colliers? Yes. And they have more time to consume drink?—That is so. The minimum of work is not synonymous with the maximum of health?—Too much work would be bad.

#### WELSH AND AMERICAN METHODS.

Mr. Henry Davies, Director of Mining Education for Glamorgan, who recently returned to Wales after a prolonged tour in the United States, lectured before the Pontypridd mining students a short time ago. Among other things he said there was a danger of the Welsh student beguiling himself with the idea that he makes sacrifices for the acquirement of education. Really there was no comparison in this respect between him and the American student. The latter, throwing pride and snobbishness to the winds, readily availed himself of any and every kind of work which would afford him the means of maintaining himself at school, college, or university. He was not above assisting at furniture removing, snow-shovelling, and even waiting upon his more fortunate school-fellows; and the lecturer instanced amongst others Harvard University, where 800 of the students earn their own living. To be more successful in the future even

than in the past, the Welshman must have brought home to him the necessity of making even greater sacrifices in the interests of true educational progress than he is now in the habit of making. A great deal has lately been said of the superior technical knowledge of the Germans as compared with the British. Mr. Davies evidently is not greatly exercised over this alleged superiority, for, turning to the educational side of his subject, the lecturer declared that a careful examination of the scheme of instruction for workmen in France, Germany and America found Wales well to the fore in this respect. He had no hesitation in declaring that in none of these countries was there any scheme in operation which would bear comparison with the scheme operating in Wales for the betterment of the young workman; and regarding the scheme of mining instruction under the Glamorgan County Council, President Roosevelt was so pleased with the work done at the evening classes under the scheme, that he is despatching to Glamorgan-shire a special commissioner to investigate and report. The lecturer wound up with an earnest appeal to the mining students to make the most of the opportunities now offered them, and to do their best to secure a scholarship out of the seventy offered for travelling, etc., by the education committee during the summer months.

#### RARITY OF PIT-CAGE DISASTERS.

In connection with the pit-cage disaster at the Orgreave colliery, near Sheffield, it is interesting to note how few accidents really occur during winding operations at our collieries. This fact has been clearly demonstrated by Mr. T. Ratcliffe Ellis, the solicitor and secretary of the Mining Association of Great Britain, the Federated Coal-Owners, and other bodies connected with the coal mining industry. Mr. Ellis, in his evidence before the select committee who had charge of the Steam Engines and Boilers (Persons in Charge) Bill, showed that in a given year, the latest for which statistics were available, there were 324,223 men employed underground, and supposing the pits worked an average of five days a week for fifty weeks, it would mean that 156,000,000 were lowered into and raised out of the mines. Taking an average of ten persons in a cage, this would involve no less than 31,000,000 windings. Now, in the year under consideration there were ten overwinding accidents, which involved the death of five and the injury of fourteen persons. Presented in this light the facts were sufficient to warrant one eminent witness declaring that "a cage seemed to be one of the safest places to be in if the figures can be trusted."

**MARITIME MINING RECORD.**

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August 14

**WABANA, AS IT STRUCK ME.**

—BY THE EDITOR.—

I had long had a desire to see Wabana, with my own eyes instead of through those of others. So many accounts had I heard of the place and its iron ore, the one varying from the others that the conclusion forced upon me was that the whole truth could be reached only by personal observation. Rather unexpectedly, through the courtesy of Mr. Thos. Cautley of the Nova Scotia Steel and Coal Co'y, opportunity was offered me to visit the Island.

Wabana should be reached from North Sydney barring fogs in forty hours, but as fogs have a fondness for the Banks of Newfoundland, it is not safe to bank in accomplishing the distance in schedule time. But for the fog the ship could have made the run in thirty-eight hours; as fog followed us from a few miles after the start to a mile or two before the finish, the time from port to port was forty-six hours. The vessel is Norwegian and so is all the crew with one exception. All the passengers are Scots. I had been told that one could not sail with a better than a Norwegian captain and crew and I had been rightly informed. Captain Ellesen of the Sommerstad is all that a captain should be from a landsman standpoint, sociable, affable and considerate. And the steward was all right too, this also from a landsman's, with a fair appetite, view point. I had formed the impression that in order to run their steamers cheaply that the table fare was meagre and lacked variety. That was a huge mistake. If in all vessels flying the flag they live as in this, then they know how to live and do it. As to the accommodation, it was good and there was more of it than on a big liner.

And so this is Belle Isle. However in the world did it get that name. Where are its beauty spots. Certainly there are high and jagged cliffs and there is a nice little piece of shingle; it is wild not beautiful. Over and beyond the cliffs there may be something beautiful but there is little beauty about the Island viewed from the land. And the landing place, well it may be—to some picturesque—a trifle romantic and that is all. It was not built for beauty, and the builders stuck to their plans, and discarded ornamentation.

As soon as the ship was berthed Mr. R. Chambers, who in addition to his duties as chief geologist for the company is superintendent of operations of Wabana came on board and we arranged to visit the mine. The exit from the vessel is ac-

complished by a long step ladder, stationed on the land and which can be lowered to any desired angle. The pier is solidly built of, presumably, pitch pine. We walk on the ground floor and visit first the endless haulage engine. The plant consists simply of three or four upright boilers and an engine. This engine hauls the ore from the mines to the pockets, the distance being two miles. The engine is situated at the bottom of high cliffs. The ascent to the surface or table land is made by an open air elevator. The height is several hundred feet. The ride is a smooth and an easy one, and is attended with no more risk than the ascent in a mine shaft. The descent, the great length of it being visible, must be rather trying on weak nerves, more especially as the end of the platform, looking seaward, is open. Asked why there were no end guards the reply was that the hoist is for freight particularly and incidentally only for passengers.

Belle Isle is not a barren island. Though one might not expect it in proximity to minerals protruding on the surface, the soil is good and productive. There are numerous farm houses visible as one drives over the road leading to the mine. The roads are fairly good and the ground is hilly. There is strictly speaking no village small or otherwise on the Island. There are a half dozen, or more, well equipped country stores. Each of the companies working the ore mines have short rows of houses, but the number of company houses is comparatively small. The Nova Scotia Steel Co. are building a few, not more than half a dozen this summer. Labor is no more abundant here than at the Nova Scotia coal mines. A number of Italians were brought out in June, but there is still a scarcity. A sense of loneliness induces many to make a short sojourn at Wabana. There are few amusements and few society meetings. The Methodists, Episcopalians and Roman Catholics have places of worship; the Presbyterians are too few in number to support a preacher. Though Belle Isle may be a little lonely, it is not so far out of the world as some think it to be. It is only eight miles from Harbor Grace and nine from St. Johns. A proportion of the workmen are Nova Scotians, and the bosses mostly come from there too. The miners are paid by the day. The company might prefer to pay by the ton but a majority of the men object. As an inducement to big outputs the company pays a bonus on every ton of ore mined over and above a specified quantity. The ore until recently was quarried on the surface rather than mined. From this out a large percentage of the ore will come from the slopes which have been sunk to the deep. There is still a very large quantity of the ore near the surface which will gradually be worked away. The Nova Scotia Steel & Coal Co. has from fifteen to twenty million tons of ore on its land leases. The quantity in the submarine areas is a matter of conjecture. The hope that it may reach five hundred million or even a billion tons is not a foolish airy vision. The Nova Scotia Steel Co. is now driving to the submarine areas—there are a number held by the company—through the Dominion Iron & Steel Co's area; this by arrangement. The slope has been driven 1200 feet into the sea areas. Back at the crop 2800 feet the ore was only 6 feet thick. At the face of the slope the



thickness is 15 feet, with the promise of continuing to maintain that thickness. The quality of the ore has, besides, appreciably increased in value.

From the shore of Belle Isle to the opposite shore the distance is eight miles. Of the strata intervening, of course very little is known though much may be surmised. On the other side exploration has shown that there is an upheaval of the metals, therefore it is not thought that the ore beds extend all the way across the 'Sound' but it is hoped that they do underlay several miles of it. The exploratory work done so far in the submarine area warrants the belief that the ore beds are much more extensive than they were considered to be several years ago.

The ore on the surface is quarried, that to the deep is mined much after the fashion of coal mining, that is, there are levels and bords and pillars, though there may be no holing or shearing. The drills in the mine are driven by compressed air. The miners are paid a set wage for a certain amount of tonnage or less; if the quantity sent out exceeds a certain quantity a bonus of some kind is allowed. The system is one between days' labor and contract. Owing to the excellent system of endless haulage, and to the excellent tramway bed, the ore from the mines to the pier is carried at a trifling cost, not more than two cents a ton. This is a low rate for a two mile distance.

The Dominion Iron & Steel Co. are driving in to the underlying and the Nova Scotia Steel Co.'s ground operations is therefore keeping well in advance of the former.

As there is no shipping in the winter season the ore is banked. The bank is very much higher than at a coal mine, as there is no fear of over-picking or of crushing. All the ore is carefully picked. The conveyor that receives the ore from the crusher is not level but set at a fairly steep angle. This is to permit careful picking and the formation of a high bank. One now understands how the Wabana ore is of such uniform size; it is crushed. The opinion in Nova Scotia was that the ore came away in the shape of cubes when being mined.

Brick must be expensive in Wabana, as in nearly all the company houses that I saw the chimneys were constructed of stove pipe. This of course gives them a plebeian appearance.

Water is very scarce in the summer season. All the little pools have to be utilized. The Nova Scotia Steel Co.'s is thinking of putting in a plant for the purpose of making fresh water from salt.

The pier is a strong structure, and the ore pocket is a huge affair, in an angular crevice in the cliff. It holds some 24,000 tons. The conveyer buckets are about 2 ft. wide and 6 deep. Each whole carries easily 1500 tons an hour. The whole plant is in excellent condition, and reflects much credit on Mr. R. Chambers, General Superintendent, and his son.

When one walks around Dom. No. 2 and views the tremendous power plants, steam, electric, and compressed air, and is told that still there is a shortage he begins to ask where it all goes.

#### THE EMPLOYMENT OF SHOT FIRERS.

In his annual report, Chief Mine Inspector Harrison, of Ohio, says in part, relative to this subject:

"A great many labor leaders and others advocate shot firers as the acme of relief for all the dangers connected with solid shooting and where large quantities of powder are used in one blast in coal mines, and legislative bodies in several mining states have enacted laws providing for shot firers in mines under such circumstances, the blasting to be done at night if or the miners have left the mine.

"With all due respect to the opinions and honesty of purpose of the advocates of shot firers, it is evident that a great many of them are not considering this important question in the broad sense it deserves and should be considered.

"The best manner of dealing with the question is to remove the cause of danger as far as practicable and to that extent the effect will disappear.

"Let arrangements be made to undercut all coal that can be profitably undercut by hand or machinery. If there is any that cannot be successfully mined in that way, it may then be necessary to consider the wisdom of shot firers. In any mine, where, from the presence of fire damp, or any other cause, shot firers would be necessary, we believe the mine should be provided with a sufficient volume of air—as all mines ought to be—to allow shots being fired any time during the powder smoke. Shot firers should be men of wide practical experience, good judgement, and clothed with a great deal of discretionary power in the firing of shots. There are no end of reasons, which are well known to any good, practical miner, that shot firing at night has many disadvantages and entails considerable loss and annoyance to the best class of miners; besides, the facilities to shot firers in the last year bespeak the dangers they assume.

"There are some kinds of coal that are most seriously affected by the use of a large quantity of powder in producing it, but the most of bituminous coal, where blasted before being undercut, is so jarred and the effects of the powder so disintegrated through the seams and facings of the vein, that when the product is exposed to the atmosphere, the rain and sunshine, it falls to pieces like quicklime, and before it is handled two or three times it reaches its destination, greatly depreciated in value, disappointing to the consumer and a source of annoyance to the shipper. The roof in the mines is so jarred and shaken by continuously large charges of powder used by unskilled miners, until the inevitable result is a grinding creep or squeeze gradually crawling over the mine, destroying airways and haulage ways, entailing unnecessary and endless expense, and burying in the earth hundreds of thousands of tons of pillar coal which could be mined cheaply, brought to the surface, and added to the commercial wealth and prosperity of the State.

"The great amount of fine coal and dust gathered along the sides and roof, and scattered through every chamber of the mine, is a continual source of danger, combustible in its nature

and always liable to cause destructive mine fires, and at any moment a "blown-out" or "windy" shot may take place, igniting a quantity of smoke or gas, raising and igniting the dust and carrying destruction and death through every part of the mine. There may be seams of coal that cannot be profitably mined at this day to compete with other productions unless this method of mining is resorted to, but it is very questionable if there is any justification for developing a mine in a seam of territory of coal surrounded by natural disadvantages to an extent of inability to meet fair competition and making calculation on overcoming that inability by the sacrifice of human life and limb. Aside from this, it is safe to say that 90 per cent. of all the coal blasted off the solid in Ohio can be successfully and profitably undercut either with hand or by mining machines. The argument is usually advanced that it would cost more to produce the coal—which, in some instances is probably true—but the enhanced value of the product would far more than offset the extra cost, independent of all the destruction to property, waste of coal and sacrifice of life and limb, besides preference would be given to skilled miners."

#### SPRINGHILL NOTES.

Again Springhill is in the grasp of the strike fiend. We are in no doubt this time as to what the trouble is. The continent at large knows. There is no room to doubt as to who is responsible as the strike is the result of the finding of the late Board of Arbitration which was applied for by the men themselves. The case when the truth was got at, was so plainly against the men, their claims so evidently a mere hold up for more money, that in the face of the wages made, the Board could only in justice decide against them.

The present strike in Springhill is, I suppose, one of the most unwarranted that ever the miners of even this strike ridden community ever engaged in. The baby that reaches for the moon, and not getting it, cries, has more logic and reason in its claims than have the men of Springhill in this strike, looking at it from the labor standpoint.

The second application for reference by the men of Springhill, under the Labor Disputes Act, which was granted by the Minister of Labor. The Board composed of R. B. Murray for the employees, J. C. Archibald for the company and Judge Patterson was appointed by the government to reside as the third man on the Board. The Board convened in the Y. M. C. A. hall and the first session was taken up by the employees in presenting their side of the case. When finished the court adjourned till next day. Next day the men were on strike, against the advice of the Board and of the best thinking men of the community. There is certainly a lack of manliness and an absolute indifference to public opinion, law or decency in this act.

This strike, from the present outlook, will be the most serious one that ever occurred in Springhill.

The management are arranging for the withdrawal of the horses from the several slopes.

The mines are said to be in good condition. It is a pity that better use should not be made of them at this busy time of the year.

The causes of strikes are many and varied, viz: For shifting a man who was designedly and deliberately robbing the company. For shifting a man out of a position where the strikers themselves complained of his insolence and inefficiency. For the replacing of a young man who was discharged for disgustingly illusing a horse in the mine. To reinstate a young man who deliberately left his place in the mine without orders or reason. But the latest caps the climax of absurdity.

Several large buildings which were contracted for in Springhill, and would have been started in the near future, have been abandoned indefinitely.

#### SOME U. S. MINES REGULATIONS.

In Pennsylvania, winding or hoisting enginemen must possess a certificate before they can be employed as such. In the matter of ventilation, in Pennsylvania, for every 75 men employed, there must be a separate split of fresh air. In Indiana every 50 men must have a current all their own; in Illinois a split must be made for every 100 men employed, and in this state the firemen must measure the air at the last working place in his district daily, as well as any other place which he thinks necessary; the result to be recorded in a book kept for the purpose, and available for examination by the inspector of mines. In Ohio the air is measured and registered once a week. There is no doubt that unskilled labor is largely responsible for the large number of accidents, and a bill is about to be introduced to make it criminal to employ any person in the mine unless he has a certificate of competency from the Miners' Examining Board. As showing the cosmopolitan character of the population, in Pennsylvania the special rules are printed in 32 different languages, so that there is little excuse for a man that he does not understand the mine regulations. In Colorado, where the death rate in mines is highest, being 5.35 per 1,000, 88 lives were lost in 1905, 52 per cent. being due to falls of roof and sides. Of those killed 12 were Americans, 4 Scotch, 10 Slavonians, 7 Austrians, 2 Germans, 2 English, 25 Italians, 8 French, 4 Hungarians, 3 Japs, 1 Finlander, 2 Tyrolese, 5 Mexicans, 1 Swede, 1 Polisher, 1 colored.

Of the 3,644,416 miners in the world the United Kingdom, according to a new return, has the largest number of any nation—974,634. Germany has 814,352; the United States, 607,069; Russia, 344,255, and France, 322,536.

## AROUND THE COLLIERIES.

Repairs are being made to the travelling way at Dom. No. 3 Colliery.

Mabou Colliery is getting under way again and is over its financial difficulties.

Electric pumps have proved very successful in Cape Breton mines. According to their size they perform a great amount of work.

Some very large falls were encountered in Hub Colliery, which goes to prove the disastrous effect of water upon the hardest strata.

A trotting park is being built at Dom. No. 2, and bye and bye Sydney won't be in it, Norman may yet challenge J. K. Cowans and Jas. McVey in any class.

Everything is running smoothly at Dominion No. 1 Colliery and outputs fairly good. Several days work. The Russian loaders are all gone and no regrets are expressed over their departure.

Inverness Colliery stands first in the province this year in increased output. To give all the credit to Manager Beaton would be giving him more than his share, but if harmony between a manager and his men stands for the best results then Inverness is an example.

Dominion No. 5 is now showing some of the good old time outputs, the new bank head and machinery is working well and the look of the mine has very much improved this year. The Emery is making progress slowly but surely as much time was required to get the bottom roads and the rope haulage into shape.

Things are running well at Dom. No. 6, and the coal is good. Underground Manager McDonald is thinking of going west on a trip. Many visitors are seeing this now famous mine, and are expressing themselves as pleased with what they see. To say that the miners are in sympathy with the law suit in Sydney and the statements made as to the quality of their coal is not stating all the truth. One is reminded of the Tom Lawsons stories re the Phalen seam.

Messrs Allan, Whyte & Co., Clyde Patent Wire Rope Works, Rutherglen, Glasgow, have just completed the manufacture of three large winding South Africa. The Ropes, which in the aggregate measure 15,000 and weigh 20 tons, are made on the taper principle to meet the problem of wind-inspected during manufacture by Mr. N. Wilson, who is at present in this country. Messrs Allan, Whyte & Co. also made some little time ago three lengths for the Jupiter Gold Mining Co., Ltd., South Africa, on same principle and which weigh fully 6 1-2 tons each,

This new mine—Dom. No 10—is now running smoothly with its new haulage, and good coal is coming out.

The Hub has the appearance of a modern colliery again with its new bankhead and colliery buildings. Coal is expected to be raised sometime during this month.

Dominion No. 8 colliery is doing good work as in olden times. The motor at the water shaft was burnt out and caused a lot of delay in getting the water out.

Pressure in Dominion No. 4 is better now as the pumping is not heavy. How long this will last depends largely on the state of the weather. The mine is more affected by rain falls than is generally supposed.

Dominion No. 3 is showing best of any as regards output per man. The mine is in good condition and everything running well. Of course No 3 is the model mine, and is to be the pattern for all future collieries. The days of the large colliery idea are past.

A shortage of loaders is seriously handicapping output from narrow work in Dominion No. 2. There is not a loader in the south side and when machine runners have to cut the coal and load it as well, there is not much coming out.

An unfortunate accident took place lately at Dominion No. 9 colliery, causing the death of one of the old respected citizens, John McMullen, he was at his work as shiftman, when a stone fell on him causing his death.

Possibly no more able successor to the late Dr. Gilpin could have been selected than Hiram Donkin. With his large experience in building Railways, Piers, etc., and in managing coal mines Mr. Donkin is well equipped for the position of Deputy Commissioner of Mines and Railways or whatever name they may choose to designate for him. By the miners of Cape Breton he has always been held in the highest respect, who look upon his appointment to the mines department with a great degree of pleasure. They feel that mining matters will be in the hands of a sound, practical man of business, who understands the importance of the coal industry as well as the problems presently surrounding it. From what we know of him no parsimony will be permitted to stand in the way of the able administration of the affairs of his department. We are pleased to note the selection of Mr. Rob. Anderson as assistant to Mr. Donkin, which in itself means that the local government have chosen the present for changes much needed in the mining department,

**WHERE THEY BEAT US.**

The builders of the old world were more ambitious than our own. No such theatre has ever been built in the modern world as the Coliseum with its diameter of 615 feet, its height of 164 feet, and its seats for 100,000 people. No wall has ever been built to equal the great wall of China, which runs 30 feet high and 24 feet thick for 1,200 miles; and the pyramids remain the wonder of the world in the twentieth century as in the first. Ancient Egypt had twelve palaces, each with 3,000 rooms; and the walls of Nineveh ran for 100 miles 100 feet high, and wide enough for three chariots to drive abreast along the top. Who builds so well and on so magnificent a scale today?

**OIL FOR FUEL IN WARSHIPS.**

Hitherto oil has been a supplementary fuel on war vessels. It has been used in conjunction with coal, and many of Britain's big warships today are fitted with both tanks and bunkers, and use the two fuels, some in one furnace, some in another. A notable example of using oil and coal mixed was Admiral May's raid on the English coast in last year's manoeuvres, when he dashed away from the pursuing enemy by spraying oil on to his coal, the effect being to stimulate the boilers as if they had had brandy given to them. But in British smaller vessels coal is disappearing altogether, and soon nothing but oil will be burnt. This is leading to a reduction of the engine-room staff, for fewer men are required, though they have to be highly skilled.

The United States navy department has directed that the U. S. S. Wyoming be prepared for burning fuel oil, and plans for fitting oil tanks in the bunker spaces have been made by the bureau of construction and repair. Experiments will be made with the Wyoming, equipped with oil burners, to determine the feasibility of using this fuel in the navy. The fuel has its disadvantages as well as advantages, and it would be interesting to learn the result of a shell being exploded in the oil tanks, whether these be a proportion of the double hull or some interior arrangement. Well-filled coal bunkers almost serve the purpose of armor plate, and are relied upon to protect the vitals of the ship. Oil tanks, it seems to us, would serve to add a distinct element of danger to a vocation which is quite dangerous enough at the present time.

Of the 3,644,416 miners in the world the United Kingdom, according to a new return, has the largest number of any nation—974,634. Germany has 814,352; the United States, 607,069; Russia, 344,255, and France, 322,536.

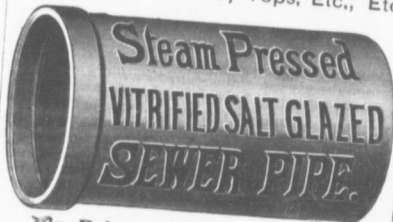
**THE BRITISH COMPENSATION BILL.**

That the new Compensation bill is drastic and far reaching may be gathered from the following taken from a British paper:

"Although some legal authorities maintain that ministers are 'contractors' and not 'workmen,' Mr. A.J. Shephard advises churches to be on the safe side and to insure them for the purposes of the Workmen's Compensation Act. Ministers, he declares, are 'workmen' if they have a salary of less than £250 a year, and under the act can claim compensation for injuries incurred while acting in discharge of their duties. A minister who in a moment of emotional enthusiasm while preaching tumbles over the rostrum rail, or while ascending the pulpit steps stumbles and injures his kneecap, or while visiting a sick parishioner falls down a dimly-lighted staircase and damages his skull, can legally look to his church for financial compensation. If, on the other hand, he slides on a piece of orange-peel on a post-office floor while buying postage stamps for his private correspondence, counsel's opinion might advisably be taken before he sues his people for damages. To the Council of the Congregational Union on Monday, Mr. Shephard, in his capacity as legal adviser, hinted at these hypothetical cases, and strongly advised churches to insure not only their ministers but their chapel-keepers, and even their chapel-keepers' wives (if they, by agreement or understanding, help in the work), the chor-woman, the organist, the blower, the gravediggers, the paid choristers, the Biblewomen and the nurses. Mr. Shephard's advice included a caution against any but thoroughly sound and reliable insurance companies which make it clear that they take all the risks under the act, and do not evade responsibility by vexatious clauses about 'the insurer taking reasonable care.' Probably some enterprising company will devise an omnibus policy to meet the cases of churches, and at premiums which will not burden the small churches, upon whom the greater responsibility falls."

"The lack of money in a community," says Andrew Carnegie, "means squalor—ignorance—disease. Look, for example, at the wonderful changes that are now being wrought in some of the Southern States, through the growth of business. Until recently they had no solid financial basis. There was no capital and no development of natural resources. Today new railways and fine office structures and homes are being built in these States. Life has been raised to a higher level. Better schools and larger libraries are being established. And what has been the cause of this transformation? It was not politics. It was business."

**The Standard Drain Pipe Co.,**  
 LIMITED.  
 New Glasgow, Nova Scotia,  
 MANUFACTURERS OF  
 Sewer pipes, Culvert pipes,  
 Flue-Linings, Chimney Tops, Etc., Etc.



Prices on Application.

**WANTED, 75 MEN.**  
 for underground and Surface work.  
 Best Wages Going.

Apply in person to Mines Office.

**Intercolonial Coal Mining Co.**  
 Limited.

WESTVILLE, N. S.

June, 6, 07.

**AN AMERICAN SAFETY-LAMP TEST.**

One of the Pennsylvania mine inspectors, believing that practical tests are of as much importance as a theoretical examination, has arranged a practical demonstration by which miners making application for certificates will have a chance to display their knowledge of gas. Suspended from a rope in the ceiling of a room provided for the purpose, this inspector has a large glass globe into which he turns a jet of natural gas, until it is filled. The windows are then completely darkened, and the interior of the room is identical with that of a gaseous mine, so far as light and atmospheric conditions are concerned. Each candidate for a certificate is given a safety-lamp and required to work it in pure air, mixed air and gas. In this way it can soon be determined whether or not the men know the utility of the safety-lamp, and are efficient in its use. This test is, of course, supplementary to the oral examination required.

*Priestleys*

**Mohairs**

— and —

**Lustres**

Have Excellent  
 Wearing Qualities,

WILL NOT COCKLE

::: WITH RAIN :::

Best for —

**SPRING AND SUMMER  
 SHIRT WAIST SUITS.**



**The TORNADO  
 AIR POWER  
 COAL DRILL**

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

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

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

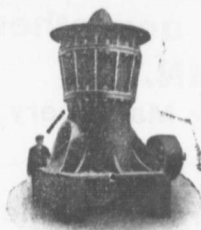
**BEST QUALITY ONLY.**  
 Blasting Powder and Compressed Pellets, Dynamite,  
 Gelignite, Gelatine Dynamite and Blasting Gelatine.  
**PERMITTED EXPLOSIVES.**

For use in Gaseous mines. Suitable for all kinds of Work.  
 Bobbinite, Curtisite, Excellite, Kolax, Rippite, &c., &c.  
**CURTIS'S & HARVEY, LTD.** HEAD OFFICE  
 3 Gracechurch St. London, E.C.

AGENTS FOR NOVA SCOTIA

AUSTEN BROS. HALIFAX.

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



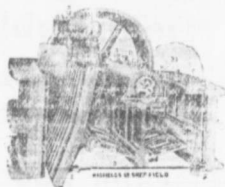
PERFECT GYRATORY  
 STONE CRUSHER.



CAST STEEL  
 BRONZE BUSHED.  
 SELF OILING

**WHEELS & AXLES**

WE MANUFACTURE  
 CRUSHING ROLLS,  
 ELEVATORS,  
 and Gold Mining Reqs.



HADFIELD'S PATENT  
**JAW CRUSHER**

(Solid Steel Construction.)

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

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

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

# CHAINS. CHAINS.

(All Sizes in Stock.)

## "EDGES" BEST SPECIAL CRANE CHAINS.

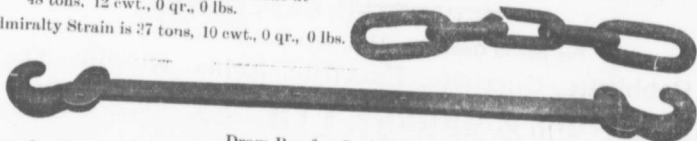
Cannot be Excelled for **HIGH CLASS QUALITY** and **WORKMANSHIP**.  
They are made of the very best brands of English Bar Iron and by Selected Workmen.

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

**Coupling Chains and Solid Forged Draw Bars**  
For Mine Cars, A SPECIALTY.

This 1½" 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"

# CHAIN.

We carry a Complete Stock of  
Detachable Link Belting and other  
**ELEVATOR CHAIN.**

Mine Elevating and Conveying Machinery,  
Such as

Elevator Boots, Buckets, Gears, Friction  
Clutches, Shafting, Hangers and Pulleys.

Send Us your Specifications.

## The Canadian Fairbanks Co.,

LIMITED.

Montreal,

Toronto,

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Vancouver.





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

ANY even numbered section of Dominion Lands in Manitoba or the North-West Provinces, excepting 5 and 25, 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 16 acres, more or less.

Application for homestead entry or inspection must be made in person by the applicant at the office of the local Agent or Sub-Agent.

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

In case of "personation" the entry will be summarily cancelled and the applicant will forfeit all priority of claim.

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

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

Where an entry is summarily cancelled, or voluntarily abandoned, subsequent to institution of cancellation proceedings, the applicant for inspection will be entitled to prior right of entry.

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

DUTIES.—A settler is required to perform the conditions under one of the following plans:—

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

(2) If the father (or mother, if the father is deceased) of a homesteader resides upon a farm in the vicinity of the land entered for by such homesteader the requirement as to residence may be satisfied by such person residing with the father or mother.

(3) If the settler has his permanent residence upon farming land owned by him in the vicinity of the homestead, the requirement may be satisfied by residence upon such land.

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

SYNOPSIS OF CANADIAN NORTH-WEST MINING REGULATIONS.

COAL. Coal lands may be purchased at \$10 per acre for soft coal and \$25 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 2,300 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. mineral, and from \$30 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 \$100 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 mile of river leased. Royalty at the rate of 2 1/2 per cent collected on the output after it exceeds \$10,000.

W. W. COYB,

Deputy of the Minister of the Interior.

## EMPIRE TRUST CO.

Head Office

157 Hollis St., HALIFAX

Advantages over Individual

Trustees—

Permanency. A complete Confidential

Trust not impeded by failure or

disobedience. It does not resign

Equipment for safeguarding ac-

counties.

Apply to Bank of N. S. for folder.

# 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

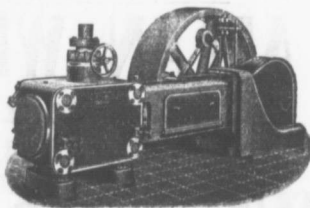
having taken over the business of the Stellarton  
Brick and Tile Co'y, and having installed more  
powerful and modern machinery, WILL BE  
PLEASED TO HAVE ENQUIRIES AS TO  
PRICE AND QUALITY.

Works—SYLVESTER

Head office—STELLARTON,

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

## ROBB POWER PLANTS.



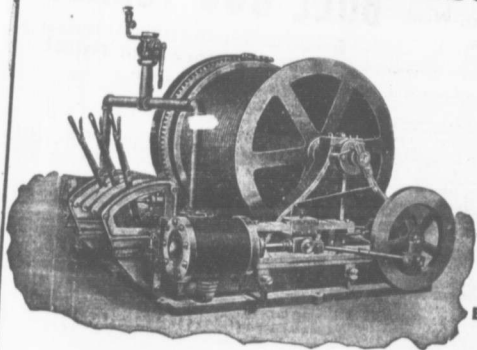
We design and contract for steam power plants  
and maintain an experienced and thoroughly  
practical engineering staff that is at the service  
of our customers.

COLLIERS ENGINES.  
HIGH SPEED VERTICAL ENGINES.  
MEDIUM SPEED HORIZONTAL ENGINES.

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

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

## "Lidgerwood" Hoisting Engines.



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

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

**Works, Montreal.**

**Branch Office, New Glasgow**

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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.

Cablegrams:

"Ropery Rutherglen."

Cables, A. B. C. (1th & 2th Eds.)  
A. L. Lobbers 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.**

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—Different Sizes and Qualities kept in Stock—

# CAPE BRETON COLLIERY.

● NEW CAMPBELTON CAPE BRETON N. S. ●

SUPERIOR

← STEAM AND DOMESTIC COAL →

SAFE AND CONVENIENT SHIPPING PORT

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

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

- - J. T. Burchell Manager.

## INVERNESS IMPERIAL COAL

INVERNESS RAILWAY and COAL COY.  
Inverness, Cape Breton.

Miners and Shippers of INNERNESS (BROAD COVE)

**Screened, Run-of-Mine Slack.**

—First Class both for Domestic and Steam Purposes.—

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

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

### INVERNESS RY. & COAL CO'Y

Time Table No. 22, Taking effect at 1 a.m. June 17th, 1907.

EASTBOUND		STATIONS.	WESTBOUND	
No. 52	No. 54		No. 51	No. 53
Read	Down		Read	Up
8.20	7.30		10.25	9.35
L 11.25	L 4.00	TUPPER L SECTION	A 11.15	A 3.25
S 11.31	S 4.06	PORT HAWKESBURY	S 11.00	S 3.17
A 11.36	A 4.14		L 10.25	L 3.50
L 4.25	L 4.25	PORT HASTINGS	A 10.55	A 3.45
F 4.30	F 4.30	TRIOY	F 10.45	F 3.40
S 4.45	S 4.45	CHERISH	S 10.35	S 3.35
F 5.00	F 5.00	JUDIQUE	F 10.15	F 3.15
S 5.10	S 5.10	CRANMORE	S 9.55	S 2.55
F 5.26	F 5.26	CATHERINE'S FOND	F 9.44	F 2.44
A 5.43	A 5.43		L 9.27	L 2.27
L 5.48	L 5.48	PORT HOOD	A 9.26	A 2.26
S 6.05	S 6.05	GLENCOE	S 9.10	S 2.10
N 6.20	N 6.20	MABOU	N 8.45	N 1.45
S 6.26	S 6.26	GLEN DYER	S 8.40	S 1.40
N 6.28	N 6.28	BLACK RIVER	F 8.15	F 1.15
S 7.12	S 7.12	STRATHMORE	S 8.02	S 1.02
A 7.25	A 7.25	INVERNESS	L 7.40	L 1.40
P 8.00	P 8.00		S 6.00	S 1.00

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

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

Miners of the

— **MABOU DIAMOND COAL.** —

Burns and Works like Bituminous;

Looks and Lasts Like Anthracite;

— **IT HAS NO EQUAL.** —

Mines, Pier  
and General Offices

**MABOU, CAPE BRETON.**

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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

### Users of Steam

[IF YOU WANT TO SAVE FUEL, Use

## B. & W. BOILERS,

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

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

Mechanical Stokers, Coal Conveyors, Electric Cranes.

—Circulars and full information on application.—

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Head Office for Canada.....11 PLACE D'ARMES, MONTREAL.  
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## A. & W. MacKINLAY

LIMITED.

Rule and Print Special Blank Forms  
for Mining and other Industrial  
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BLANK BOOKS ruled to pattern and  
and made in any Style of BINDING  
Loose leaf supplies of all kinds made to  
order.

135 to 137 GRANVILLE STREET.

## HALIFAX, N. S.

### George Patterson,

BARRISTER, SOLICITOR, ETC.

NEW GLASGOW, N. S.

Successor to Sinclair and Patterson—

## JERSEY - LILY - FLOUR.

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

**Rand Air Compressors,**  
**"Little Giant" Rock Drills,**  
**Harrison Coal Cutters,**  
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MANUFACTURED BY

**CANADIAN RAND COMPANY, LIMITED.**

Hallifax Office, 116 Hollis St.

G. L. BURRITT, Agent.

**Sullivan Rock Drills.**

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

May we tell you why?

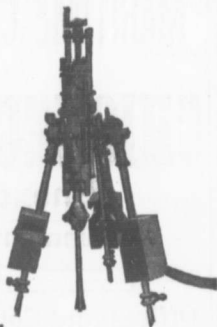
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**Sullivan Machinery Company.**

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.

Unequalled for Durability and Power Transmitting Qualities.

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# Acadia Coal Company, Limited.

STELLARTON, NOVA SCOTIA.

Miners and Shippers of the

CELEBRATED

## ACADIA COAL.

*Unexcelled for Steam, Domestic and General Purposes.*

**DELIVERED BY RAIL OR WATER.**

**SHIPPING PORT: PICTOU LANDING.**

Quotations Furnished Promptly on Application.

### MARITIME COAL, RAILWAY & POWER CO. Ltd.

Miners and Shippers of

## CHIGNECTO HIGH GRADE COAL.

Steam AND Domestic

**Unexcelled for General Use.**

Shipments to all points reached by the  
Intercolonial Railway.

Offices and Colliery - - - Chignecto, N. S.  
DAVID MITCHELL, General Manager.

# The BROWN MACHINE COY.,

New Glasgow, Nova Scotia.

**Coal and Gold Mining Machinery a specialty**

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

**Complete equipments furnished for Coal or Gold mines.**

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

Estimates Cheerfully given

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**THE BOILER INSPECTION & INSURANCE CO.**

OF CANADA



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CONSULTING ENGINEERS

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WHEN WERE YOUR  
BOILERS  
...LAST INSPECTED?...  
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WRITE TO  
G. W. JONES, Agent,  
Halifax, N. S.  
-OR TO-  
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**WIRE ROPE**      All Kinds and Sizes  
**GREENING**      and for all purposes  
Standard and Lang's Patent  
Rope Fittings.      Rope Grease.  
THE B. GREENING WIRE COMPANY, LIMITED.  
HAMILTON, ONT.      MONTREAL, QUE.

Prices Right.      Lay.      Prompt Shipments.

# DRUMMOND COAL.

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



# GOWRIE AND BLOCKHOUSE COLLIERIES, LIMITED.

OF NEWCASTLE ON TYNE.

MINE AND LOADING PIERS, PORT MORIEN, COW BAY  
CAPE BRETON, N. S.

**Miners and Shippers of GOWRIE COAL.**

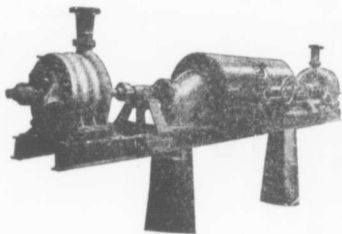
The Reputation of this Coal has Steadily Advanced during the past 40 years and the Output of the new Mine is fully up to the old Standard of Excellence.

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

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

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

**BOILERS:** All Sizes and all Pressures.



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

## PUMPS

Worthington Pumps for  
Water Works and Mines.

## Water Wheels

Doble Water Wheels for high heads.

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**MONTREAL.**

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**NEW GLASGOW, N. S.,** TELEPHONE B'LD.

# Dominion Coal Company, Ltd.

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

—Yearly output 3,500,000 tons.—

## ANALYSES.

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

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

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

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

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

## :: BUNKER COAL ::

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

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

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

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

DOMINION COAL COMPANY, LIMITED,  
 DOMINION COAL COMPANY, LIMITED,  
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112 St. James St., Montreal, Que.  
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—and from the following agents.—

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

Peake Bros. & Co. Charlottetown, P.E.I.  
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**G. H. DUGGAN,**

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# 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