MARITIME

MINING RECORD

AND

COAL AND METAL TRADES JOURNAL

Cumberland. ✳ *Pictou.* ✳ *Cape Breton.* ✳ *Inverness*

New Series Vol. 10 No. 10 November 27th, 1907 STELLARTON, N. S

INTERCOLONIAL RAILWAY

On and after SUNDAY, OCT. 13 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
	78 Mixed for Hopewell	6.55
	18 Express for Halifax, and St. John	7.40
	21 Mixed for Pictou Landing	7.40
	61 Mixed for Pictou	7.45
	55 Mixed for Mulgrave	8.30
	19 Express for Sydn y	11.10
	23 Mixed for Pictou	11.15
	56 Mixed for Truro	13 55
	139 Mixed for New Glasgow	15.25
	85 Express for the Sydneys	16.50
	20 Express for Halifax and Montreal	16.30
	140 Mixed for Pictou	16.35
	161 Mixed for Pictou Landing	16.45
	22 Mixed for Ho ewell	18.10
	65 Mixed for New G asgow	19.50
	86 Express for Halifax and St. John	19.50
	17 Express for New Glasgow	21.50
	66 Express for Pictou	21.55

—TRAINS ARRIVE AT STELLARTON

79	Mixed from Hopewell	6.30
78	Mixed from Trenton	6.55
61	Express from Pictou	7.30
18	Express from New Glasgow	7.35
21	Mixed from Hopewell	7.35
55	Mixed from Truro	8.00
22	Mixed from New Glasgow	10.55
97	Mixed from Pictou	10 55
56	Mixed from Mulgrave	13.35
19	Express from Halifax and St John	11.50
139	Mixed from Pictou	15.15
85	Express from Halifax and St. John	16.40
20	Express from Sydney	15.20
22	Mixed from Pictou Landing	18.10
77	Mixed from Hopewell	18.45
65	Mixed from Pictou	19.35
86	Express from the Sydneys	19.40
66	Express from New Glasgow	21.40
17	Express from St John and Halifax	21.45

All trains are run by Atlantic Standard time Twenty four O'clock is midnight. Moncton, N. B. OCT 12th. 1907

Buffet Sleeping cars on trains 85 and 86 between Halifax and Sydney. Dining cars between Halifax and Mulgrave. Buffet Parlor Car on Trains 19 and 20 between Halifax and Sydney. Dining cars between Mulgrave and Grand River

NOVA SCOTIA.

Mines of Gold, Silver, Coal,

- Iron, Copper, Lead, Etc.

Titles direct from the Crown

At Moderate Royalties.

GOLD AND SILVER.

Licenses are issued for prospecting for Gold and Silver for a term of twelve months They Comprise areas 150 by 250 feet, and any number can be obtained, at a cost of 50 cents per area. Leases of any number of areas can be obtained, at a cost of $2,00 per area, for a term of 40 years; subject to an annual rental of 50 cents per area.

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

Minerals other than Gold and Silver.

—LICENSES TO SEARCH—

over five square miles for eighteen months, cost $30,00; leases for four renewable terms of twenty years each can be selected from them at a cost of $50,00, and are subject to an annual rental of $30,00

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

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

FOR INFORMATION APPLY TO—

HON. W. T. PIPES,

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

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.

It is said that the angle of the coal in the old Richmond mine, now being re-opened, has dropped in the level to about 20 degrees from seventy in the slope. This is a very quick decline. Ten days ago a little coal from this mine was supplied the Cape Breton Ry. Co. Development work is proceeding rapidly.

Formerly....

MARITIME MINING RECORD

Vol. 10, No. 10. Stellarton, N. S., Nov. 27th. 1907. New Series

MARITIME MINING RECORD.

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

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R. DRUMMOND, PUBLISHER.

STELLARTON. N. S. NOV. 27

SELECTED QUESTIONS AND ANSWERS.

Practical Working.

Q.—State how you would proceed to tap water in old workings to the rise of your present workings

A.—In answering this question it will be necessary to take into consideration what the C. M. R. A. says with regard to the same.

General Rule 13 provides that where a place is likely to contain a dangerous accumulation of water, the working approaching that place shall not at any point within 40 yards of that place exceed eight feet in width, and there shall be constantly kept at a sufficient distance, not being less than five yards in advance, at least one bore hole near the centre of the working, and sufficient flank bore-holes on each side.

To comply with this rule, and to deal with the water, which we must remember is to the "rise," I would drive a pair of narrow headings from 7 to 8 feet in width, having a bore hole in the centre for a distance of 6 to 7 yards at least ; on eash side I would have flank bore-holes, at on angle of 30 degrees and 45 degrees alternately, so that the bore-holes would so meet together that it would be impossible to miss the old workings.

Mow, it would be necessary to have some appliance for controlling the flow of water when tapped, so that the working would not become flooded. This could be done by boring through a fixed pipe, having a valve at the mouth of the bore-hole, and when holing is effected the rods are withdrawn, and the valve closed, so that the water may then be allowed to escape as besired. It is also possible to attach a gauge to the pipe so that the pressure of water in the old workings may be ascertained.

If the pressure of water to be tapped was very high, it would be effectively and safely dealt with by using an appliance such as the Burnside safety boring apparatus. By this method the drilling is carried on through a tube 4 feet in length, which is tightly wedged in front of the hole, having tap and glands provided to control the outflow of water. A very good point about this apparatus is that before starting work it can be tested up to a pressure of 600lb. per sq. inch, by means of a small hydraulic pump and pressure gauge attached.

When we consider that the water in question is to the "rise" we must remember that the water, when tapped, will naturally flow from the old workings, therefore it is essential that proper arrangements are made, so as to control the outflow,

In addition to using one of the above methods, I would take the following precautions when boring :—

1.—Have a few wooden plugs about 4 to 6 feet in length kept in readiness at the face.

2.—Have a set of trying instruments so that the length of the bore-holes may always be readily ascertained.

3.—Always use safety-lamps during boring, and have an extra one kept burning a short distance away, in case the borers' lamps become extinguished.

Ventilation.

Describe nnder what circumstances an ordinary miner's lamp becomes unsafe.

A.—There are numerous cases in which an ordinary miner's safety lamp becomes unsafe when in actual use in the mine. Some miners who do not altogether understand the principle of the safety-lamp think that it can be worked with under practically any condition, this being the cause of many accidents that have occurred.

The following are a few of the many circumstances :

Working with the lamp in an unsafe condition and insecurely locked.

Through the collier neglecting to have his lamp at a suitable distance from where he is working. Cases have been known where the pick has actually been sent through the gauze and the glass cylinder through this neglect.

When proper precautions are not taken in re-lighting safety lamps ; possibly this may result in the lamp being returned td the workperson unfit for use, with a damaged gauze or lamp glass cracked or kroken.

Being in charge of persons who do not understand the principle of the safety lamp, as before stated, which may be liable to produce an explosion, through the flame coming in contact with inflammable gas when in an unsuitable atmosphere.

Through the oil or spirit required by lamps for combustion being unsuitable, therefore causing the flame to flash or jump. Neglecting to put in the asbestos expanding ring, which results generally in a broken glass when the latter commences to expand.

Through a sudden outburst of gas ; also thoughtless persons raising their lamp suddenly towards the roof where there is an accumulation of inflammable gas.

The velocity of the air current being too high for the specified type of lamp in use, which would possibly force

the flame through the heated wire gauze.

Therefore, in my own humble opinion, after considering the above causes, if the C. M. R. A. and Special Rules with regard to safety lamps were strictly adhered to, there would be very few cases in which the miner's safety lamp would become unsafe, as we have had it proved to us that the chief cause of accidents through safety lamps has been neglect.

Q.—How would you construct an air bridge over a main level.

A.—When two air-currents have to cross each other an air-bridge is constructed. The making of an air bridge generally shortens the distance for air to travel, reducing the length of airways, therefore the rubbing surface is lessened, causing less friction to the air. Very often a return airway has to cross an intake on its way to the shaft after passing round a detached portion of a district in the mine, or, perhaps an airway is shut by a large fall completely blocking the road; then, instead of clearing away the fall, and going to the expense of timbering the road, an air-way can be made further out, and thus cut off a large portion of the air way. By passing the air up one of the headings which is driven through on the main level a new road is made, and when working the pillars out in the pillar and stall system the airway is always brought out along with the work whenever one pillar is finished, therefore, it often happens that an air-bridge is aequired to carry the ventilating current over the main level or in-take airway. The place selected for an air-bridge on the main level has the roof taken down until the required height is reached; then two sides walls are built up at the place, and on the walls the frame of the bridge is built. If only a temporary erection, brattice cloth may be suitable to cover the framework, or the frame resting on the side walls is made of battens; then deals tongued and grooved are nailed over this care being taken that all joints are made airtight. This form of bridge is suitable when only for use a short time, as the return air way soon causes the deals to rot and give way.

A stronger form of air bridge is one constructed of eleven inch battens, the walls being built, and a strong frame of wood made across the floor, sides, and roof. Then white wood battens having their edges planed smooth are laid all round, making the bridge tight. The battens when put in should be dry, and the dampness in the return air will cause them to swell add make tight joints.

In some mines wood does not last long, as dry rot sets in, and destroys it in a short time, causing frequent renewals, and if the air bridge has to be in use for a considerable time it may as well be put up substantial, and old boiler plates bolted or rivited together used in place of wood; or on the main level the height required is arched over with masonry, and where the bottom of the bridge is, two or three girders are fixed in the brickwork. Then the floor of the bridge is covered with ordinary flat sheets bolted down to the girders,

Q.—What is the peculiarity belonging to hydrogen gas.

A.—Seeing that hydrogen is one of the constituents of CH_4 or what the miner commonly terms gas, it is essential that we should be well acquainted with all its properties and peculiarities, and in this answer I will give a brief description of the gas and its various properties, with special mention of its chief peculiarity, which makes it of so much importance to the miner.

Its chemical symbol is H. Atomic weight and density I. Specific gravity 0.069; air being taken as unity.

It does not exist (except in very minute quantities) in an uncombined state in nature, but is generally chemically united with other elements; for instance, it is one of the elements of water, where it is associated with oxygen; it is a constituent of all plants and animals, and of the great majority of combustibles, and also of most organic bodies.

Properties.—Hydrogen is the lightest body in nature, being 14½ times lighter than air; fifty cubic inches of this gas weigh only 1 grain.

When in its pure condition it is colourless, odourless and tasteless, and in this condition it dissolves in water to the extent of 1½ volumes in every 100 of water. It cannot be solidified or liquefied.

But each of the above properties is of secondary importance when compared to the relation of hydrogen with flame.

It will not support combustion, but is itself most strikingly combustibie in air.

Both of these properties you may test by taking a jar of hydrogen, hold it with the mouth of jar downwards, then introduce a lighted taper to the jar, and you will find that the hydrogen will burn at the mouth of the jar where there is air to support combustion; but if you push the light up into the jar until it is completely enveloped by the gas, you will find the light will be extinguished.

Further, if you hold the jar with the mouth upwards and apply a light to it, you will find that the hydrogen will burn with gteat rapidity, owing to its lightness, giving off a pale yellow flame and great heat.

But if you take the hydrogen and thoroughly mix it with air and then apply a light to it, the combustion of the whole of the gas is almost instantaneous, and is attended by a loud explosion, the force and voilence of which will depend upon the percentage of hydrogen present in the air.

This is the peculiar property of the gas mentioned in the question, and one that is of vast importance to the mining community, since it is this peculiar feature of the gas which causes us to have the disastrous explosions in our coal mines which devestate our ranks from time to time, and desrroys both life and property.

AGES OF EMPLOYEES ABOVE AND BELOW GROUND, PICTOU CO.

Name of Mine	Under 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	over 70	Total	Averages
Drummond Colliery	133	162	134	109	78	66	45	44	29	28	5	3	836	
Acadia Colliery	31	46	60	23	32	29	16	15	10	6	2	1	271	
Albion Colliery	43	69	45	65	25	17	19	16	12	7	2	3	323	
Allan Shafts	34	59	42	26	20	22	4	11	9	3	2	2	234	
Thorburn or Vale	35	59	44	39	19	13	14	18	12	4	3	3	263	
Totals for Pictou	276	395	325	262	174	147	98	104	72	48	14	12	1927	

CHEAP COAL CONVEYING.

The following remarks were made by Mr. George Farmer at a meeting of the I. Staffordshire Mining Association:—

Some time ago several members took the opportunity of visiting Glass Houghton Collieries to see coal conveyors working on both face and gate. Perhaps few took the trouble of definitely enquiring into all the possibilities of the conveyor or of looking very fully into the costs, etc., entailed by putting down such an important plant as required. From the cutting of the first sod to the filling of the last ton of coal in the worked-out pit, the transport of the mineral and material is an important part of the manager's multifarious duties both above and below ground. Until recent years satisfaction (?) was given by an inevitably wasteful system of manual labor; but now, circumstances have been altered, and nearly every mine has a cheap and easy means of conveyance, of transmitting, and applying power for secondary purposes through motors, compressed air engines, oil or gas engines, etc. Now, we have got to an easy means of conveying coal or other mineral, along the working faces and the roadways to a main road where other mechanical means take hold to convey it to the shaft. It is clearly evident that a conveyor to suit such purposes as required will have to be of a light pattern, to be quickly erected and manipulated, somewhat in the shape and ease of a portable machine. At the same time it must be able to stand rough usage, not easily "insulted," and be reliable in action. It must be practicable, and therefore no mere toy, but simply and solely a serviceable article. Mr. Sutcliffe was one of the first to invent, and put into practical use, the conveyor, and he gives the following notes as to costs and size:—

"If we take the load on a 5 feet belt to be equal to 1 cwt. per foot run, it gives the total load of coal on 1,000 yards of belting at 150 tons, which, travelling at 100 feet per minute, it delivers in 30 minutes, making an output of 300 tons per hour. The weight of a band of flat wire rope 5 feet wide and 1-4 inch thick, forming 1,000 yards of convevor, would be about 72 tons, and would cost at £80 per ton, £5,760.

"The breaking strain of such a conveyor belt would be about 525 tons while the highest working stress would not be more than 42 tons. When drawing coal from a mine 1,000 yards deep through drifts 4000 yards long, the working stress would be made up in the following manner:—Stress due to gravity in raising 150 tons against an incline of 1 in 4, 37 1-2 tons, stress due to friction on load, belt, and rollers at 1 per cent., 4 1-2 tons; equal to 42 tons total, allowing a factor of safety of about 12 to 1. The cost of such a band conveyor may be from£8 to £15 per yard, or, say, an average of £12 per yd., or a total of £12,000 for 1000 yards. If we assume 4,000 yards of main conveyor at a total outlay of £50,000, and say the upkeep would amount to 10 per cent. of that sum, or £100 per week, we may also assume that the plant will work five days per week, producing 15000 tons, or 3,000 tons per day, and if we divide the £100 by the 15,000 tons, we obtain 1-6d. (one and six-tenths of a penny, or a fraction over 1 1-2d. per ton) as the cost for carrying coal a distance of 4,000 yards, or more than 2 1-4 miles. This is less than 3-4d. (three farthings) per ton per mile."

Coming to the auxiliary, or face-gate conveyors, Mr. Sutcliffe points out the great advantage to be gained in the working of dip places as compared with the incessant annoyance occasioned in such workings by extras in various forms to colliers and hurriers. "With a system of conveyors at work, 10 gate conveyors, fed by 20 face conveyors, placed at either dip or rise side, or both sides of the main way, could supply 300 tons per day of 10 hours, from 10 faces each 200 yards in length, in a seam over 3 feet in thickness. This would make a total of 2,000 yards of face for the output named, and 1,000 yards of it might be on each side of the main way."

There may be a little fanciful dreaming about some of these figures, but if only approximately correct, they would go to show that we can, and probably, to a large extent, will in the near future, convey our coal from the faces to the main road at a much lower cost than we do now. At any rate, if not saving in the actual conveying cost, we shall certainly save in the making and maintaining of only a few gates in place of many.

The way they are discovering the coal seams in Antigonish county these days reminds one of the many McBean discoveries of about twenty years ago. At that time we were told of the finding of coal seams all the way from three to ten feet. The new explorers have not surely completed their work as their biggest seam is eight feet. The papers have it that Deputy Inspector Blackwood is travelling to and fro at a rapid rate. Just what part of the Mines Regulation Act he is carrying out in doing so, is not quite clear to ordinary people. That he should report to the government is, of course, proper, that he should take a hand in exploiting is not so certain.

The United Mine Workers of America have now $741.000 on hand. The bloated capitalists. The more money the less liklihood of a needless strike. If the balance was seven millions the chances of strikes would be remote, if the officials could prevent them.

That was a nice hit of the New York Globe. It says the elimination of the words "In God we trust" from the new $10 gold pieces is in harmony with the administration's grudge against all trusts.

LARGE COAL MINE OUTPUTS.*

By F. C. Keighley.

During the last ten years there seems to have been a rivalry among mining men in the line of the development of very large mines. The motive does not seem to have been of one making greater profits so much as it has been to get out a large output, something that exceeded the output of someone else; though in some cases it seems as though the projectors of a very extensive mine had also built largely on the expectation of realising increased profits through a reduction of costs by reason of the very large output. I can readily understand that in some lines the larger the establishment or the greater the piece of mechanism, the greater the results obtained; for instance, in building ocean steamships, and sailing vessels as well, the tendency is to continually increase the size and the freight and passenger-carrying capacity and consequently the capacity of the machinery operating the same. In the line of blast furnaces pretty much the same practice has been followed in the last 10 or 15 years. The same might be said of quite a number of other lines of manufactures to which it is hardly necessary to refer. To some extent the things referred to just now have been successful and have resulted in reducing costs, though they have not all been successful by any means. I will not deny that this tendency to drift into greater things as a whole is not bad policy, but there are conditions existing in some things where there is a limit to expansion.

As an illustration let me take an ocean steamer. I do not question for a minute the utility of the great freight and passenger-carrying capacity of some of the steamers recently launched which exceed in size anything that has heretofore been attempted, and though this line of reasoning may apply to ocean steamers it will not apply to coal mines, and I will attempt to show why it will not. In the case of an ocean steamer the captain can stand on the bridge and can survey the whole of the exterior of the structure at a glance, and also the surroundings perhaps for miles, but no man can stand at the foot of the shaft of a coal mine and see in every direction more than 25 or 30 feet; it is true he may see in one or more directions, where the workings have been provided with electric lights, for perhaps 200 or 300 feet, but that would be the outside limit to his observation from any point. The builder of a steamer can tell to a ton almost where he will get his freight and where he will deliver the same; he knows where he will get his passengers and he knows where he can deliver them, and as the source of revenue for the steamer is derived wholly from freight and passengers he knows conclusively what he can do and can build his steamship accordingly. It is not so with a coal mine. A coal field represents what I will, for the purpose before me, term freight. Every ton of coal in that coal field should be taken up the shaft, and if a mine operator owns a total area of 1,000 acres of a 10 foot seam of coal he can safely count on being able to get from each acre thereof, by skilful management, 15,000 tons of coal; a thousand times that would mean 15,000,000 tons of coal to be taken through that shaft. It is a fact that a coal-field has length and breadth, therefore the mine operator can, if he wishes, determine what will be the average length of the ton-haul to the foot of his shaft providing the conditions underground are what we might call normal. If the coal-field is irregular and troubled with swamps or irregular depressions in the coal floor, then he cannot previously determine the average length of the ton-haul; and it is a fact that very few coal mines when they are developed disclose the coal seam as lying in the position expected. Again, a coal field may have a good or a bad floor, it may have a good or a bad roof. The field may be troubled with cut-outs, horsebacks, slips, etc., it may give off large volumes of water; it may generate larve volumes of gas. The boundaries of the coal-field may be very irregular, making the development costly. The dip or rise of the seam may be excessive; and another factor, which, by the way, is no small one, is the fact that at no time can a man see the workings as a whole; in fact, his observation is limited to a very small area at one time. You can now see that the arguments used to show the desirability of building large steamships cannot be applied in the case of a coal mine, as the conditions encountered are more numerous and comple.x Please do not forget that there are a number of other things that might have been as advantageously used for illustration as a steamship. This, I think, will dispose of this phase of the question.

Continued next issue.

It is rumoured, and the Record has information which leads to the belief that there is some foundation to it, that the Dominion Iron & Steel Co. are negotiating for the purchase or leasing of the coal areas at the back of Port Morien, known as the 'Cowans' areas. Samples taken from several of the seams in the property give analyses which show that the coal is excellent for metallurgical purposes. An advantage too that this property possesses is that it is close to a shipping port, is easily accessible and that coal could be won in a very short time. If the Steel company really intend to 'take no chances' then the Port Morien areas afford them an opportunity to put their preaching into practice.

There has been an improvement in the output from the Allan Shafts of late; and this it is expected will be continuous.

"Mr. Baird's reply to Practical, and other tiems crowded out."

Rubs by Rambler.

How much was it that the Herald and friend Milner who is holding a 'retreat' for the past twelve months, were wont to say coal had increased of late years? I think they said it had doubled. The Herald makes retraction; that Milner ever will is not to be looked for. In giving the prices of a dozen or so articles from the years 1896 to 1907, the Herald shows that while pork, and milk and potatoes have gone up from 66 in the case of the former to 103 in the case of the latter, coal has only advanced in 11 years a paltry 27 per cent. And this after all the noise and bluster that was made about the high price, and after all the denunciation of the operators for their greed and grind. An increase of only 27 per cent. in the price of coal is proof that the operators are not any better off in 1907, as regards profits, than they were in 1896, for since then wages alone have gone up 22 per cent. and material at least 12 per cent. Though the Herald has been a little late in finding out and acknowledging its mistake it is well to have it even now. The Herald should make full reparation and make apology to the operators for having allowed its columns to be the channel, for calumny. The operators are at length vindicated.

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The Herald correspondent at Springhill says that "What is wanted here is peace not war" True. He further accuses the Chronicle correspondent of a desire to foment strife and at the same time make the Springhill men ridiculous. The Herald correspondent is led to say this because the Chronicle had announced that the men were going to apply for a new con-board on the scales price, I presume. Scales have just been erected on the bank heads. The men were formerly paid by the box; after this they are to be paid, presumably, by the ton. How much is to be paid to a miner per ton, that is the question, and it is one that is not free from difficulty. The company will naturally desire to show that the boxes held a larger quantity of coal than what the men are willing to allow And the funny thing about it is that both parties will likely have to shift the ground they formerly occupied. In former contentions as to quantity in box, the men used to contend that a box contained much more than the company were willing to admit. The men will now have to take the ground that they were wrong in their former contention as to the weight of coal in a box, and that the company was right, and the company will in its turn have to declare that it had a suspicion all along that the men were half right. The question is not one requiring the deliberations of a conciliation board. A good level headed local committee should effect an arrangement with the manager in two hours. The men should uot be anxious to call for conciliation boards. These do not at all times decide as expected. When I started this paragraph I did not intend to branch off on the scale question, rather I intended to back up the Herald correspondent in censuring the Chronicle. I am sorry to have to agree with him that the Chronicle is playing a strange and, let me say, an unwise part. For the past few months it looks to me as if the Chronicle kept prodding the men, to keep them restless. The Chronicle may not in so many words say, 'don't give in,' but that is the inference to be taken from its language. It is not so much what the Chronicle has said, perhaps, as its way of saying it. A newspaper's first aim should be to promote harmony and good will between masters and men. In order to do this a case should be fairly stated, and each side shown where it may be in error. If one side is continually held up to censure and ridicule then people will suspect that the Chronicle has a motive neither quite honest or disinterested. It is a true saying 'that chickens will come home to roost.' I have proved it on many occasions, and some of those who look at every question through political spectales may have the truth of the axiom brought home to them in a way they did not expect.

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I read the other day where an English bull dog worth $190,00 had been put hors d' combat, by an English cow a short time since The bull dog thought it had the cow securely by the nose, but the animal was wise and knelt down on the brute and crushed the life out of it. That cow ought to get a medal. It did a meritorious act. I wish we could have a few such cows at odd times in N. S. There are places that are overrun with ugly bull dogs. If the cows would rid us of these, we would be willing to guarantee them against assault from the pound keeper. The cows mode of extinguishing a bull dog may do very well for heavy men when attacked, but what are the light and the little fellows to do. I believe in the taxation of luxuries, the greater the luxury the heavier the tax, and as most dogs are luxuries they should be taxed heavily. Indeed a reasonable tax on this kind of luxury would so lessen rates that there would be no necessity to municipalize telephones or electric lights. We then could afford these expensive, uncertain luxuries.—the phone and the electric lights.

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There were some, at any rate there was one, professedly a loyal trades unionist, who wished to have eliminated from the constitution of the P. W. A. the words 'sobriety, industry, economy,' especially the former, a thing, he held, with which the P. W. A. had nothing to do. To my mind it is one of the big things the P. W. A. ought to have to do with. I have referred to this before, and I am referring to it now because I have just read of a sensible thing the Illincis mine workers propose doing. They have decided to vote the liquor traffic out of existence. This action was taken at an election held lately. This shows that the Illinois miners know that other enemies than the capitalists beset them, Labor's biggest foe is drink. I do not say miners take more drink than other classes, but I do say they can afford it less, as it interferes more with their means of earning. If socialism was half in earnest it would devote its best energies to the effacement of liquor, which does infinitely more to keep men down and keep them poor than combines or

capitalists.

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A correspondent of the Herald writing from Glace Bay, makes the following suggestions as an easy way to start a penson fund, "I would suggest that the government use one cent per ton of the royalty levied on coal raised to form such a fund; this would be their contribution. It is generally conceded that men and companies should also contribute equally towards such fund. Now I think the simplest way to insure the contributions of companies and men, and to do it in a manner that would prevent leakages or any cancelling in future, would be to increase present royalties ½ a cent a ton. This would come automatically off men and companies and could be adjusted amicably by the two latter, on an equitable bases. All three contributions, would, roughly speaking, make an annual income of about ninety thousand dollars." I wish the writer had told us how he is going to get the mens share of upkeep. It is easy enough to get it from the companies, but how could the companies possibly get it from the men,unless at the end of each year they made a levy upon each employee for an amount which, when multiplied by the total number of employees, would give a contribution equal to theirs. The plan is one to 'take' at first blush, but it loses favor on investigation. As one of his arguments in favor of his plan the writer gives :

"It would not always be before mens eyes, and would'nt be a subject of continual discussion, as it would undoubtedly be if marked monthly as a 25c. deduction on men's pay sheet."

Possibly, but the terrific one howl that would go up when the operators deducted $2.00 to $2.75 from each man's pay ticket at the end of the year would strike the county as with an earthquake for a radius of twenty miles around the mines. I have told the story before hav'nt I of the Scotch Kirk collector who waited on a workingman attendant and asked if he would contribute a pound a year to the minister's stipend : "A pound, a hale pound, do ye think I'm a Craesus."—Andrew Carnegie was not in the front seat then—"Naw I canna afford a' that." 'Well, then' asked the collector, "can you afford sixpence a week." "Sixpence" was the immediate reply, "only sixpence, why ma: I can afford that brawly" The collector got more than he had first asked because it consisted of many smalls and not a lump sum. And it would be that way, I fear, with yearly deductions for an annuity scheme And then could the ½ cent royalty plan be made to work equitably? Let me take four collieries, Springhill, Drummond, Reserve, and Dom. No. 2, and let us see how much the collieries respectively would have to pay. Let me put the output of the Drummond at 300,000 tons a year, at a half cent this leaves $1.500. There are 750 men at the Drummond. The men would require to pay $2 00 only at the end of each year. The output at Springhill I put down at 450,000 tons equal to $2,250, and putting the number of employees at 1500, each employee would be called upon for $1,50 only. The Drummond men would have to pay 33c. more than those of Springhill. The output of Reserve is say 900,000 tons and the yield $4,500. The number of employees roughly is 1400 and each would require to pay $3.20 odd. The outpnt of Dom. No. 2 is 1,100,000 tons, and the yield $5,500. The number of employees I put at 1600 on an average. Therefore each man would be called upon for $3.40. The machine runners at Reserve and No. 2, having a soft snap, might not squirm when asked for $3,50 in the slump, but how the laborers might look at it—I fancy I know. No the half cent idea will scarcely work, unless it can be worked monthly. Would it be collected in July or January. If in July some would be blackmailed ; if in January some, very many, would have flown and the remainder would have to pay costs, even if they had only worked a month at the mine.

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Friend Milner has again cast his coat. A remark of Governor Fraser offers a text which he considers suggestive of a discourse, and he gives it through the Herald. But alas it is the same old discourse though the text is differently worded. There are not a few men of one idea alone. If the idea is a good one we bear with the expounder. Friend Milner is a man of one idea, and unfortunately—for our friend—it is no good, It neither tends to the moral, material, mental or social amelioration of the masses. True its object is prevention. Its purpose is to prevent the Herald readers from forgetting that our friend is still to the fore. That and nothing more. The one idea that my friend has in his head is that the heads of the Dominion Coal Co. are dominant in every devilish thing, are a set of domineering rascals. They dictate, he says to the Federal authorities and dare them to reciprocity ; they dictate to the local government and dare them to charge a ten cts. royalty to them instead of a twelve and a half ; they dictate to the Halifax Board of Trade and command them to tell the St. John Board of Trade to keep their mouths shut ; they dictate to the N. S. Mining Society and order it to muzzle Milner, and they dictate to all the consumers in the lower provinces and order them to pay through their noses for their coal. I admit that while Mr. Milner's one idea is an evil one it is a fairly big one. Included in our friends one idea is the assumption that the Dominion Coal Co. are not in the business for profit ; their sole object in conducting extensive operations is to annoy the people of the province by dictating high prices for coal. If that is not the object of their existence how comes it about that they won't think or hear of doing a free trade business with the States, where in the matter of transportation alone they would have an advantage over U. S. operators of $1,50 a ton. It is all very sad, and very inexplicable—from a Milner point of view. The perversity of the Dom. Coal Co. passes all comprehension. Mr. M says they are sending coal into the States in the winter time and thereby keeping their mines at work and their men employed, and yet, will it be believed, James Ross wanted to knock that contract on the head. Does not that of itself furnish proof that the D. C. Co. want no dealings with the New Englanders? Mildly, Milner, mildly, Water rates to Boston from Norfolk, Newport News, or Baltimore or Philadelphia are not two dollars a ton, and it is against water rates and not rail rates N. S. has to contend. From Newport News to Boston the rate is less than half two dollars, and from Norfolk to Boston 95cts., while from Baltimore or Newport News to Providence, Fall River and New Haven

the rate is 85cts. The fact is were we in N. S. to carry coal to New England ports in the same sized bottoms as they do from Norfolk etc. we could not begin, duty or no duty, to compete with the U. S. coal carriers. If we had reciprocity and the U. S. operators wanted to keep us out all they would have to do would be to contribute to a common fund, a cent per ton of their output, and we could not land a ton of coal in New England for love or a less loss than two dollars a ton, And they have done similar things in the States before now.

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The Glace Bay Gazette makes the novel suggestion that with their surpluses the several Relief Societies should start a loan company—a sort of joint stock company presumably. If the societies have surpluses with which they can dispense, for surely it would be dispensing with them if they were put where they would be locked up, and not readily available, then there are other modes of disposing of them than putting them in a loan society. I think there were four Relief Societies in existence before the government rendered assistance, one in Cumberland, two in Pictou and one at Sydney Mines. The object in starting these societies was primarily to dispense with colliery collections—at least in three out of the four cases. And the chief object in forming societies under government patronage was similar. A secondary object was that an unsystematic method of giving charity should give place to a form of relief to which members were by right entitled. While the societies has been a huge success they have not fulfilled all of their primary objects. 'Collections' are still taken up, though to a much less extent. One might naturally suppose that if collections are still necessary it is because the available funds are not sufficient to meet needs. If collections are taken up at a colliery where the Relief Society has accumulated $5000 to $10-000, then assuredly the funds are not being generously administered. There should be no surpluses where there are members in actual need of assistance. If a society has $5000 on hand why should it be necessary to apply to members individually to help some really needy member. There must be something wrong. If the fund cannot meet fully all necessitous cases then instead of a collection let an assessment be made and the money paid the necessitous through the society. Take the case of a society which had, so to speak, money to burn. In other words their surplus grew beyond possible needs, as defined by the bye-laws. The members altered the bye laws and gave to a member on the death of his wife $40 instead of $15,00. This was a little strange in view of the fact that certain collections had been sanctioned during the year. 'The bye law would not permit of the trustees giving more than a specified amount for a specified time' it may be urged as a reason for the sanctioning of a collection'. That won't hold water. If the members could alter the bye laws to increase death claims, they could alter them so as to shut off voluntary collections so long as there was a cent of surplus, and when the fund came to that stage it could be replenished by assessment, a much more equitable plan than by voluntary collection. Let voluntary collections be abolished, by legislation if necessary, and should emergency arise let assessment be made. Let a central fund be established with an ultimate capital of $100,000, to meet a great calamity, should it occur—this fund to be raised by a per capita from each of the societies,—and let the surpluses if any—there should be none while collections are needed—be deposited with the government at 4 per cent. these surpluses to be available for drawing upon when a fund from any cause is hard pressed, and there will be then no need for embarking on a scheme which would be run by outsiders.

THE MABOU MINE.

'What about Mabou', is a question that has been asked more than once of late, 'has it shut down?' No: a bit of it; as the college enthusiasts would say 'Mabous all right' And so it is. There has not been much noise, but there has been a good deal of substantial work, and work of a kind most valuable. Not alone from the company's point of view, but from a geological standpoint. One cannot drive it into the heads of the theorists that there is the possibility of a great area of coal down there, and it is possible there may have been justification for this belief, owing to the pranks the plaster and the conglomerate played with the measures on the coast line. It is beginning to look more so day by day as if the Mabou field was much larger than expected. There has yet been no indication, in the sinking of the slope, of any deflection, depreciation, or disturbance in the measures seaward. The angle is about the same as it was a thousand feet up. The coal actually keeps improving and the band of fire-clay in the 8 foot seam grows thinner. The slope is now down 1700 or 1800 feet, and though there is only one shift on is advancing nearly five feet per day. The coal in the 7 foot seam in which the slope is driven, looks very much better than near the crop. There are two levels on the West. On the upper level there are two balances with eleven bords to draw from, on the 1600 feet or lower level there are two balances driven and room for a third. And as the third balance will go up beyond the upper level, there will be rooms in a short time for 22 sets of miners, and as the level is being driven rapidly there should be room for a fourth balance in a few months. On the East side there is a balance with four bords.

On the lower East level the coal was cut off by a fault. This fault is being driven through and during the past few weeks the coal has been recovered and is gradually growing thicker. At the face of the level it is 3 ft 4, and the likihood is that in the course of a couple of months or less the full height will be recovered. When the Mabou slope was being sunk the sinkers followed the coal which led to the production of a slope the most tortuous of any in C. B. Two years ago one of the kinks was taken out, and of late another has been disposed of, so that now the slope is nearly straight, would be wholly so but for one bend which however is not serious, and is scarcely discernible to one descending in the riding rake. These crooks in the slope made big outputs impossible; the best that formerly could be done was two hundred and fifty tons or so a day. Now it will be possible to double the output. There will be places in the Spring for forty or fifty pairs of cutters, and the mine will be in a position to put out from 325 to 400 tons per day. The mine is to-day in very much better shape than at any former time, and the development work as it proceeds is raising the hopes of the owners of the property that there is an immense field of coal seaward. The company is being re-organized, and has been in court for several months. It is expected all

matters will be arranged the middle of Jan'y, after which preparations will be pushed for next seasons shipping. There are some things yet needed, such as coal cars, which will have attention as soon as the forms of law have been gone through.

MR. DICK TO MR. STUART.

We have previously referred to Mr. Stuarts attack on the coal trade and might deem further reference unnecessary were it not that Mr. Stuarts paper has been printed by the Mining Society and sent to all its members, Mr. Dick made an excellent reply. Had Mr. Dick now opportunity to answer Mr. Stuart he could do so even more effectually as instead of coal in Britain being $3,75 not far from the pits mouth it is now $5.00 or over. We give the concluding part of Mr. Dick's reply and Mr. Stuart's closing remarks as we had no opportunity to do so earlier:

"I am not going to say anything in the way of criticism of the gold mining methods pursued in the province, which Mr. Stuart has alluded to. I have had some experience in metalliferous mining myself in British Columbia, California, and Mexico. It has not been of a very extensive character but in a general way I have a fair knowledge of gold mining in these different countries, and I venture to say and I do not think Mr. Stuart will dispute it, that there is no country to-day in which there is extensive metalliferous mining, where the cost of fuel is lower on the average to the miner than it is in Nova Scotia. So that there must be some other reason for the decline in gold mining in this province other than the price of coal, and I think Mr. Stuart in his argument disclosed what that reason really is. The substance of the whole matter appears to me to be that the yield in this province from gold mines is decreasing, and there is an increased rate of wages which you must make up your minds you will have to pay, because there is a general demand for labor, not only for mining, but for other purposes, not alone in Nova Scotia but throughout this country from ocean to ocean, I was recently told by a prominent official of the Grand Trunk Pacific Railway that he finds it absolutely smpossible to obtain labor for railway construction at from $1,75 to $2 a day. Only the other day a number of the mine operators at Butte, Montana, had a conference at which they decided to make the average rate of wages to miners $4,00 instead of $3,50 per day of eight hours. How can Mr. Stuart expect that he will be able to get good gold miners to remain in Nova Scotia for $1,50 a day, when, as he says, they are exceptionally good men who can get $4 in Butte. How can he expect to get labor at as low a price as he could get it in 1892 and 1893, when the cost of living of these men has increased from thirty to forty per cent.? The cost of everything that is consumed in this province has increased. The price of food stuffs, principally the meats and vegetables and provisions which the people of Cape Breton import from Prince Edward Island, has increased twenty-five to forty per cent.

In all fairness to the coal companies, this agitation should cease, and this society which is interested in the patriotic development of the mineral resources of the province, should set its face against any further attacks upon an industry which has done more for Nova Scotia, and will do more for Nova Scotia, than any other industry that is carried on within her borders."

Mr. Stewart in closing the discussion said: "I think from what Mr. Dick states, coal mining men must feel that they are under some obligations to me after all for giving them this opportunity of showing the public that they are not as Mr. Dick claims, charging excessive prices. The silence of the coal operators in this matter, has perhaps had a good deal to do with the fact that the public have come to this conclusion. It is true that they have been attacked, and attacked very severely, yet they remained passive—there has never been a word in defence. Therefore I rather expect at the close of the meeting that this society will pass a vote of thanks to me for giving them this opportunity of showing to the public that we have been under an erroneous impression."

The new slope, Dom. No. 12, at Lingan, is now down about 90 feet in solid cover, and the prospects are that it will be among the producers on a fairly large scale next year. The work is being pushed energetically under the direct supervision of Mr. Maxwell and Ang. R. McDonald. A temporary bankhead is being constructed. The bankhead is a little off the straight line so as not to interfere with the proper placing of the permanent one, to be constructed after development work has advanced. The surface plant at present consists of an engine and boiler house, a washouse, forge, stables, office and company boarding house. A temporary reservoir 10 ft. deep has also been built. There are two brooks one a tributary of the other, not far from the slope. The main hoisting engine is to be built on the other side of the smaller brook thus placing it almost within the railway yard. With the new pump running and the temporary bank head finished there should be rapid progress in sinking. No fewer than six slopes are to be driven. This is perhaps responsible for the statement that six slopes, presumably hoisting slopes meant, were to be driven at Lingan. The six slopes are in connection with the one colliery. Only two of these will be really slopes, two others will take the place of air shafts and two will be dumb. Good progress, too, is being made on the branch to connect colliery with main line. About fifty men are employed. It is proposed to build a hundred and fifty workmen's houses and the intention is that these will be placed at a considerable distance from the colliery. Frills will be dispensed with in building of the plant, and common sense practised.

Some coal from the mine in Richmond county, near Caribou Cove, was supplied lately to the Cape Breton railway. The angle of the seam which is sixty five in the slopes, drops to a little over twenty in the level. A rather quick drop. The promoters deserve to have their faith rewarded.

PROGRESSING IN VENTILATION.

By George Farmer, Esq.

Very important changes have recently been made in mining, and perhaps the one which has received the most attention is that of ventilation! and why not? On the ventilation of a mine hangs the safety and health of all the workmen, for everyone must admit that questions of health and safety depend more on pure air than on good mechanical appliances. Not long ago—some of our fathers remember it—the ventilation of a mine depended entirely upon natural means for its existence, which meant that if a current of air did happen to stray into the mine, and probably into the workings, it was taken advantage of. The air current was first in one direction and then in another, which meant an absence of ventilation in many cases, and to such an extent that the collieries could only work two or three days per week, and were not infrequently inaccessible in consequence of accumulation of gas. It was then suggested as one way out of the difficulty, "that the natural gas in the mine should be neutralised by dilution with some other gas"; it did not apparently occur to mining experts that the best possible medium for diluting it was ready at hand in the greatest possible abundance. It was to Mr. John Buddle that the present system of efficient and adequate ventilation was due for its genesis; and he, at a meeting of the Society for the Prevention of Accidents in Mines early in the nineteenth century, maintained that the only method known for preventing such accidents as explosions was by thorough ventilation of the passages and workings. It was not feasible to ventilate gradually extending workings with air currents which had to travel 30 or 40 miles; but, as is well-known, by dividing the workings into separate districts, splitting the air in the manner now familiar, the ventilation, and consequently the comfort, health, and safety of the miner has been considerably improved. Time does not allow me to go through the history of the ventilation of a mine, from practically no current to that produced by the furnace, and on to the evolution of the fan. We all expect to find now in the ordinary equipment of any modern colliery a fan or fans producing large volumes of air with perfect ease and reliability. One thing has impressed us only in recent years, and that is, mechanical skill has taught us that there is no need for moving large masses of metal round to produce ventilation when smaller machines are capable of producing the same effect, thus we often now get small fans and quick speed rather than large ones and slow speed. It might be interesting to know that there was, early in 1868, only one ventilating fan in Yorkshire, the Byran fan at Hemingfield.

THE COAL MINE OF THE FUTURE.

By Pres. J. Staffordshire, M. A.

If I might sketch something like a modern colliery of the future it would be something like this:—On the surface there would be no boilers. The small coal would be coked in bye-product ovens, and the waste gases utilised in gas engines, which would in turn generate electricity, supplying power for all purposes, both above and below ground. The colliery sidings would be laid out so as to utilise gravity for transit of full and empty wagons, and connected to railways, etc., and cart wharves for local sales. The hauling and hanging-on would be as nearly as possible self-acting, all the decks of the cages being loaded and unloaded simul-

Continued on page 21.

taneously. Underground the workings would be laid out entirely on the long wall system, leaving no pillars except the shaft pillar, and worked by electric coal-cutting machines and conveyors in a perfectly systematic and regular form. Timbering also would be set and withdrawn in a systematic manner controlling the roof pressure in such a manner as to convey the pressure on the right points. Special care would be taken that the main roads and the cross roads were perfectly straight. The haulage from the shaft would be by endless rope driven by electric motors; all secondary haulage roads being worked by electric locomotives; in some cases conveying the men to and from their work as well as hauling the coals. Auxiliary electric-driven fans would be used to help the longer splits of air. Finally, every man would have a knowledge of the modes of rendering first aid to the injured, in which the St. John Ambulance Association has proved eminently useful, that knowledge having been given him at the elementary schools; and a rescue station would be established on the surface of every colliery, with corps of trained men always at hand or within call of the colliery blower. These happy thoughts may be extended almost indefinitely, but nothing has been added that mining men of the present day are not aiming at.

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

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

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

The fee for recording a claim is $5

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

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

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

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

The lessee shall have a dredge in operation within one season from the date of the lease for each five miles. 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 $10,00.

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

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

In Lots To Suit Purchasers.

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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, C. 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.

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