

E. R. Faribault,  
Geological Survey

# MARITIME MINING RECORD.

NOVEMBER 12, 1919.

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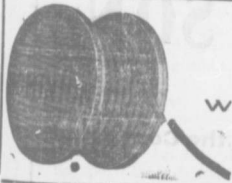
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436		437
A M		P M
10 40	POINT TUPPER	3 40
10 50	INVERNESS JUC.	3 48
10 54	PORT HAWKESBURY	3 50
9 57		
9 52	PORT HASTINGS	4 03
9 52		4 00
9 50	TEBY	4 20
9 13	ORIGNIAE	4 40
8 43	SEASMOORS	4 46
8 40	SPINQUE	4 50
8 36	MARYVILLE	5 00
8 36		5 00
8 08	PORT HOOD	5 20
7 25		5 25
7 23	GENESOE	6 11
7 18	MABOU	6 20
7 05	BLANCHETTES	6 30
6 44	BLACK BAY	6 38
6 44	STRATHLOAN	7 00
	INVERNESS	7 10
		P M

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## MARITIME MINING RECORD

Vol. 22

Stellarton, N. S., November 12th., 1919

No. 9

## LABOR AND CAPITAL.

Dr. C. A. Eaton, a Canadian by birth, and well known as a New York clergyman, has, at the request of the London Times, written a long article on the relationship of Capital and Labor. Dr. Eaton has been called the Reconciler of Differences, and his services were called into requisition by the U. S. government during the war. Exigencies of space preclude us giving more than a portion of the opinions on the coal problem:

## COAL PRODUCTION PROBLEM.

I have been greatly impressed by the many signs that England will suffer this winter from lack of fuel. According to an English authority the average yearly output for a British miner is 226 tons, while for an American miner it is three times that amount. These figures raise the question not as to what will become of the miner or the mines, but what will become of England. An American contractor is erecting rolling mills in England, Youngstown, Ohio, and in England. He is paying 50 per cent. more for the same article made in England for use in England than he pays for it in Youngstown. And the workman there is receiving 30 per cent. higher wages than here.

If I were an Englishman I would be gravely concerned over these facts. The English working man is as good as the best. In mining and the steel industry he is not competing with men of his own breed, except in part; for a large proportion of the iron and mine workers of America are from central and southern Europe. Why should a Pole or a Slav in America mine more coal or produce more steel products than an Englishman in England? Is it a question of machinery or method, or is it a state of mind?

I would not venture an opinion upon matters at issue between miners in England and their employers, but as a general policy for this time I can see only one thing for any man who loves his country, and that is to get to work and stay at work until the danger is past.

I shall follow with eager interest the proposal to nationalize British mines. In America many of us used to believe the Government could do railway running and mining and some other things better than could private interests. We don't think so now. The war has cured us. The other day when the railwaymen, who are a very high type of workers, demanded nationalization of the American railways, they were met by a storm of protest from all classes, workmen included. We are afraid of bureaucracy and red-tape and taxation to make up for losses due to the stupidity of political administration of public utilities. We are coming back to the good old British doctrine that the less interference from Government in industry the better. The best Government is self-government.

One of the greatest delusions that ever darkened the mind of man is the theory that you can work the institutions of industry by means of a political machine.

Let us tell the truth to each other. The average Englishman or American has no more use for a 'proletarian dictatorship' than he has for the rule of a dangerous lunatic. And much of the back wash from this madness is alien to the best ideals of the English speaking working man as it is repugnant to his intelligence. If I were a workman now as I was for many years of my life I should be deeply depressed by the desperate efforts being made at the moment of my country's need and danger to reduce my life to the stature of a weakling. I should be ashamed to be put in the position of asking for a six hour day surrounded by an entanglement of legislative safeguards for fear that I get a smooch of coal dust on my nose or soil my fine linen by sweat. A man who must be protected by law from working more than six hours a day is too delicately organized to wear trousers. He ought to be garbed in petticoats and have a nurse to stand between him and the rude realities of a workaday world.

A mineowner is simply a trustee and servant of the nation. A mine worker is exactly the same. Every business is a social service, otherwise its profits are got by fraud. Every worker is a national servant, otherwise he has no right to demand wages from the nation for his work. A coal miner will risk his life without a moment's hesitation to rescue a drowning child from the river; but the same child may die of pneumonia this winter because the same miner for some inscrutable reason is permitted by his union to work only a few hours a day. This theory and this practice really have nothing to do with the needs, rights, or wrongs of the worker. They are the expression of a wild revolutionary purpose, which has its source outside England, to destroy the so called capitalistic system by reducing hours and output to a minimum and increasing wages to a maximum. If the English-speaking peoples, through cowardice or inertia or ignorance permit this programme to develop they will richly deserve the ruin which will overtake them.

A light bankhead with other necessary surface buildings, of small size, is doing the turn for the starting of Dom. No. 24. The "deeps" are getting off to a fair start, the coal showing 4 ft. 11 in. at the face. Work is being rushed on the concreting of the mouth of the slope before frost sets in. Under Manager Ioseley this new mine should be exploited rapidly when once the good roof is reached and normal mining begins.

## MARITIME MINING RECORD.

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

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

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

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**R. DRUMMOND, PUBLISHER.**

STELLARTON, N. S.

November 12, 1919.

### OUR OIL SHALES—AND OTHER.

One looking for information as to the extent and quality of the oil shales of the provinces of N. B. and N. S., might find a difficulty in being guided to a source of information. Refer him to the Mines Department at Ottawa, and he may be told to get a copy of Dr. Ella's report, if he can, from outside sources, as there are no spare copies left in Ottawa. If he is referred to the Mines Department in Halifax, he may be answered after this fashion: "Shale, shale, let me think. Oh, yes, shale, the Department spent nearly forty dollars in securing samples of Nova Scotia shale, and we applied a match to it and it smelled of oil." "Has it been analysed?" "Analysed, what is that?" "Can you tell the yield of oil per ton or the pounds of sulphate of ammonia?" "Well, scarcely. That would involve some expenditure and it has ever been the policy of all governments in the province to waste neither time nor money in the exploitation of the baser metals, or minerals, or in fact anything not likely to bring political grist to their mills. Exploitation of our minerals is left entirely to private individuals," and, then, seeing the disappointed look on the enquirer's face he may add: "The Mining Record has had a lot to say of shales, possibly you might get a little information from that source."

The Departments of Mines in Ottawa and in Halifax are fearfully and wonderfully made. There is no necessity to stay their hands from working or ask, "What doest thou?" For the simple reason that working and doing are two qualities wholly foreign to their constitution. The Ottawa Mines Department sent the ever welcome Mr. Faribault down on a certain mission to Nova Scotia and shrugging its shoulders, gave him permission to examine a two foot seam of shale in C. B. Mr. F. was told there was "two" feet of shale in the shaft but he didn't see it. He saw some loose shale at the shaft head. The Mines Department sent Dr. Wright also to Nova Scotia. The Dr. admitted he came as a learner, took a sample or two of weathered shale and sent it to Ottawa to be inspected by the heads there, who can only give it a laboratory test, a thing that any prospector can obtain for himself. Let the Department at Ottawa determine to spend a little money in N. S. in practical work, that is, in getting shale not exposed to the weather and testing it by

other methods than laboratory. The Department at Ottawa having no pecuniary interest in shale development may be excused for begging itself on the province's behalf, but it is different with the Provincial Department of Mines. Really, the Department of Mines at Halifax should awake from its slumbers. The development of our oil shales is of so great importance that we shall again refer to the debate which took place in the Senate a month or more ago, when Senator Donville spoke on his resolution requiring the Government to relieve all oil shale machinery, necessary to be imported, of payment of duty. In the following extract too much "stock" must not be taken of Senator Donville's opinion that "death and misery" may follow if our fuel supplies are not more earnestly looked into:—

Eastern Canada relies for its supply of fuel upon Nova Scotia, New Brunswick and the States. The shipments to the province of Quebec from Nova Scotia are away behind the normal pre-war standard. The production in the States is also much less than normal and this lessened production is being called upon to supply countries hitherto supplied from Britain. Is it not evident that Eastern Canada is bound to suffer from the shortage of fuel which neither supplies of peat nor wood can prevent, indeed can hardly ameliorate? Death is the certain consequence following such conditions. The only source of fuel, the development of which could have supplemented the fuel supply of Eastern Canada, was the oil yielding shales of the Maritime Provinces. Yet for reasons, best known to themselves, but which they have not thought wise to make public, the government has persisted in making it impossible to secure this development. Who then will be morally responsible for the deaths and misery? Surely each member of the Privy Council that created the "impasse."

Even when the British Government sent out to Canada Sir Francis Hopwood, one of the Lords of the Admiralty, to investigate the very question of oil fuels, the Government never notified the known owners of the proven properties, nor their technical advisers, but kept the honourable Lord of the Admiralty strictly secluded within a little coterie of their own officials, who, indeed, knew next to nothing of the actual situation.

I have intentionally avoided speaking upon the question of the possible recovery from the shale, after the oil has been educed therefrom, of certain by-products. I believe, however, that the interests of Canada require that this Chamber and all Canada should be made aware that oil is not the only product that may be economically recovered from certain of the Canadian oil yielding shales. Not perhaps from all, but certainly from some. It is now known that from certain of the shales, there can be recovered nitrogen and potash, both important fertilizer chemicals. Everyone interested in agriculture knows that up to now Canada has been dependent upon foreign sources for her supply of potash. In other, but rarer cases, precious and rare metals in remunerative quantities, may be recovered, and there is a possibility that in certain cases, it may be possible to use the residue for the manufacture of certain qualities of cement. All these sever-

al recoveries require machinery upon which large import duties are collected by the Government."

Taking part in the debate Hon. Mr. Fowler said he could not congratulate the House upon the tremendous interest which they had manifested in the discussion of this important subject.

This, like all new enterprises, is surrounded by a certain amount of risk, unless the request of my hon. friend is granted, they will have to pay 42½ per cent of their capital, practically, for the privilege of risking the other 57½ per cent. None of this machinery is made in Canada, as there is no such thing in Canada at the present time as the extraction of oil from shale.

This is not a new business, however, Scotland has been extracting oil from shale for nearly half a century, and has been doing it very successfully and very profitably. These New Brunswick shales have been analyzed by the best analysts in the world, and have proved to be at least as good as those of Scotland. Therefore, we have in our own country, in the province of New Brunswick, great means of supplying to the Imperial Government a very necessary fuel which they are obliged to obtain to a very large extent from foreign countries.

Enormous amounts of British money are invested in Mexico, a country without a settled Government, where they have to take enormous chances.

Very recently the Cowdrey interests there were taken over by the Shell Company, I think it is. They have also taken oil from Borneo, from Roumania, and from many other parts of the world, as well as obtaining some in the United States.

The question of the development of these oil shales in Canada is a very important one, and I think the honourable gentleman is to be congratulated whether he is acting from a personal motive or not. If this House were properly seized of all the circumstances, I think it would realize the necessity of something being done."

And then our own Senator Roach had something to say, and though there was not much in what he said it should bring the blush to all the other N. S. Senators who remained silent, especially the Senators from the mining counties. The pity is that Mr. Roach spoke truly when he confessed ignorance as to the fact that there were shales in N. S., that is so for as personal contact and acquaintance with the mineral went.

Senator Roche said:—

I desire to add a word or two to what has been said in regard to the duty of the Government to assist in any measure or enterprise which will tend to enlarge the resources of the various provinces of Canada. We all agree to that proposition. The oil question is now upon a new basis with regard to fuel for ships. I am not so very familiar with the utilization of mineral oil in other branches—for machinery, for fertilizers, or for other uses; but I know that a very great advance has been made in the propulsion of ships by the use of oil. Not only the ships of the Royal Navy is oil superseding coal, but also in merchant ships, on account of its cheapness, on account of the reduced space which it occupies, on account of its cleanness, and also because of the reduction in the number of men employed in

stoking. It is superseding to a large extent the use of coal on routes where oil can be obtained at both ends.

I am told—I do not know it of my own knowledge—that there are large beds of shale in Nova Scotia also. I think the Government could very well assist in having that article mined, and tested as to its oil-bearing capacity by the Imperial Oil Company, which has established extensive works at Halifax and employs now about 10,000 men, and also had established a town with all the concomitants of very extensive works. They import their crude oil from Mexico and from the United States. I think that, with the facility which works of that kind would afford, the capacity and quality of the oil shales in Nova Scotia could be very cheaply tested, and, if they are valuable as oil producers, of which I have no doubt, they would add extensively to the revenues both of the province of Nova Scotia and of the Dominion of Canada.

With regard to the New Brunswick product, I have always heard that it is very valuable and will be a great resource of that province. I cheerfully concur with my honourable friend in asking the Government that they give every facility and every assistance to enable him and others to develop that very valuable product, for otherwise it will be a comparatively barren province."

Having on an occasion come to the charitable conclusion that the seeming apathy of the N. S. Department of Mines was not wholly due to penuriousness but from the fact that the provincial exchequer was depleted in order to give employment to impecunious prosecuting attorneys, needy judges to act as coroners at inquests into mining fatalities, plaintive rudimentary roadmakers, the Record decided to obtain information, as to Scottish shales, in fuller detail than had been diffused by either the Federal or Provincial Departments of Mines. Luckily the writer had been conducted through one of the big Scottish Oil shale plants, that at Broxburn, near Edinburgh, and there made a friend. To our inquiries the friend has furnished the following details which will be useful for comparison, when real and practical tests shall be made of our Nova Scotia shales.

Introductory to the several analyses, our Scottish correspondent says: "Owing to the variable character of the shales it is difficult to get a true average sample, of almost any seam for analysis. At first blush a bore hole suggests a perfect method of obtaining it, and yet the material got from bores driven within a foot of each other sometimes vary by from two to three gallons or even more in the yield of oil. For obtaining the specific gravity, also, it is not easy to secure a piece representing the average of the whole thickness of the seam.

The shales from the upper coal measures give a crude oil of high specific gravity.

The AIRDRIE shale, from the upper part of the Kiltongue coal seam, Springwell colliery, gives 33 gallons of crude oil sp. gr. .957, setting point 65 degrees; Sulphate of Ammonia six pounds, (lab. tube.)

MONKLAND shale, 32 gals. sp. gr. .960, and Sulphate of Ammonia 6.3 pounds.

Shale from WESTFIELD, Rutherglen, 24½ gals., sp. gr. .961, Sulphate of Ammonia, 10 lbs. The laboratory tube experiments give an oil with specific gravity higher than the present retort, and corresponding roughly to that of the old vertical retort.

**RAEBURN shale.** In the Boxburn field in a basin to the east of Uphall. This seam has a thickness of 4 feet and yields 54½ gals. per ton, specific gravity .887, Sulphate of Ammonia 7 lbs. (lab. tube.)

At Neibiggen, near Broxburn, about 4 feet of this seam contains 28 gallons, and the overlying eleven inches 11 galls., Sulphate of Ammonia, 9 lbs.

**FELLS SHALE.** This shale yields from 26 to 40 gals. of crude oil and 20 to 35 lbs. of Sulphate of Ammonia per ton, with retort of Young and Bulby.

**OAKBANK** new shale yields 35.59 gals. of crude oil at Oakbank and Oakbank big shale, 4 feet thick, gives 22.32 gals. per ton. The nitrogen content being 0.720 per unit.

**BROXBURN GREY SHALE.** At Broxburn the shale yields from 24 to 26 gals. per ton. In one place it is as low as 20 gals. at another as high as 33 gals. The Sulphate of Ammonia runs from 24 to 36 lbs. and in some cases reaches 41 lbs.

The lower big shale at Oakbank, 6 feet thick, yields 29.34 gals. to the ton.

The **CURLY** seam at Broxburn, about 5 feet thick lies above the Broxburn seam. The following sections may be taken as guides to the yields—

Section, say, No. 1—Top, 2 ft. b, 18.57 gals. oil, 19.17 lbs. Ammonia (lab tube). Bottom—2.2, 28.56 gals., oil, 17.04 lbs. Ammonia, (lab. tube). Average—4.10, 23.05 gals. oil, 18.21 lbs. Ammonia, (lab. tube.)

Section No. 2—Top, 2.8, 30.04 gals. oil, 17.04 lbs. Ammonia, (lab. tube.) Bottom—1.16, 20.12 gals. oil, 14.91 lbs. Ammonia, (lab. tube.) Average, 4.6, 26.21 gals. oil, 16.17 lbs. Ammonia, (lab. tube.)

Section No. 3, Top—2.7, 32.67 gals. oil, 19.41 lbs. Ammonia, (lab. tube.) Bottom—2.5, 31.26 gals. oil, 19.73 lbs. Ammonia, (lab. tube.) Average—5.0, 32.00 gals. oil, 19.56 lbs. Ammonia, (lab. tube.)

The **DUNNET** seam at Broxburn yields 18 to 20 gals. crude oil and 40 lbs. Sulphate of Ammonia.

The probability is that the yields given of oil are those obtained at the plants, and not merely laboratory analyses. We wish our correspondent had given the yields as obtained by laboratory test and the actual retort yield. Nova Scotia shales have never, so far as we are aware, had a retort test. Our real practical knowledge of oil bearing coals and shales does not extend much further than the fact that when stellarite was exported, sixty years or so ago, the yield of oil was greater than from any other coal or shale on the continent. So far as our knowledge goes there never was a test made to discover whether the stellarite contained any sulphate of Ammonia. The presumption is that it does not, owing to its wonderful oil content.

It will be noticed that several of the Scottish oil seams are of small height. In Nova Scotia there are seams as high as thirty feet and deposits—for it would be hazardous to say they were seams of fifty feet, and even upwards. The laboratory tests for oil in our shales, even after making allowance for the higher yield from the source of testing, show that our shales are equal to those of Scotland, if not superior,—which some maintain they are. Labor-

atory tests have yielded 78 lbs. of Ammonia to the ton. A weather beaten shale yielded on analyses high 40 lbs. of Ammonia with an oil yield of over thirty three.

It strikes one as peculiar that the Nova Scotia Mines Department has never taken a lively interest, or in fact any interest, in determining the value of our shales. It has not, as yet, entered the heads of the Department that their interest might extend beyond the readiness to accept thirty dollars from any one desirous of securing a right of search. The defence of the Department may be that up till within a short period the shales belonged to the proprietors of the land. But should not the government take an active hand in attempts to develop the resources of the province? 'What are they there for,' but for that very purpose? If the shale did belong to the landlords, why did the government not spur them up? What would be the good of the Agricultural College did not mining give employment to a very large part of the population? In what position were the farmers of this province before the mining of coal assumed large proportions? The best assistance the farmers ever had was that given them by the mining industry. Without mining the province would be in a pitiable condition. The government should realize that the country cannot prosper, as it should, without the expansion of the mining industry, for Nova Scotia is not a farming country, as are the provinces to the West. The government may say: 'We have taken an interest in the shale business.' So they did. As stated the government spent a little less than forty dollars in obtaining samples, and then they stopped dead broke and worn out with their huge endeavor.

## LABOR'S RESPONSIBILITY

The Mining Record has for long maintained, and given frequent expression to the opinion, that Labor Unions should be forced to become incorporated by statute: as in the case of industrial business. When a bargain is made between the employees, through their unions, and employers there should be means of compelling the unions to implement the agreement, as readily as the employers can be forced to do so. The Record is pleased to believe that its opinion in this regard is gradually obtaining support in certain influential quarters. The following extracts from a series of articles, bearing on the responsibility of labor, we quote in support of this belief:—

Under this system by which employers and organized employees "get together," it frequently happens that arrangements entered into are set forth in contractual form, the employer, whether a corporation or an individual, on one side, and the trades union on the other. Such contracts define what shall be the working conditions, wage scale, etc., for a specified period of time. These contracts are entered into as being mutually advantageous. Theoretically they are so; actually, as demonstrated time and again in practice, they operate solely to the advantage of the employees concerned. The reason for this is that the trades union, while ready



enough to enter into a contract ensuring to its members the maintenance of conditions considered by them at the time to be desirable, does not assume adequate responsibility for the non-observance of the contract by its members, who, in turn, have no law to fear as individuals. In other words, while these contracts are respected by the employers as binding upon them, they do not bind the employees who are members of the contracting unions. The company or individual, in accordance with the pledge given, provides employment under the conditions set down in the contract, but there is no means, and the contracts themselves, as things are now, cannot provide any means, whereby the employer can compel the employees, as individuals, to fulfil the conditions to which, as a union, they have agreed. In the majority of cases such contracts are the result of demands made by employees as trades unionists, and they represent benefits of one sort or another which the organized employees have secured. Yet, while the employer is bound to live up to an agreement, the advantages of which are all to the other contracting party, the employee can take it or leave it at times as he sees fit. The civil law does not compel him to fulfil the contract entered into in his behalf by the union of which he is a member. The employer is thus deprived of the only possible benefit which a contract might otherwise give him, the guarantee of adequate labor without interruption for the period specified in the contract. He cannot, as already stated, hold the individual worker, nor has he any satisfactory recourse against the contracting union which is not a corporate body, and, in any event, has its head-quarters, in most cases, in a foreign country. What is wanted is a system which will make these contracts mutually beneficial by giving to the employer, under his contract with labor, protection equal to that which labor itself enjoys. Such an arrangement would work no hardship upon organized labor if organized labor is disposed to respect its own undertakings and fulfil them. The law should be made to apply in equal degree to either side in one of these agreements.

The fact that the contracts entered into by organized labor are binding upon the employers, but not upon the individual employees affected, constitutes the principal obstacle to the attainment of the object vaguely referred to as "better relations." Better relations are impossible so long as contracts affecting employment cannot be enforced against one of the parties to such contracts. When that obstacle is removed, one of the most aggravating phases of the labor problem will have disappeared. Yet this, one of the foremost difficulties with which industry has to contend, finds no place in the list of subjects set down by the Minister of Labor and his associate for discussion by the Industrial Conference.

\* \* \* \*

The public in this country, as in the United States and Great Britain, are wakening to the fact that the aims of organized labor constitute a serious menace and must be resisted if industry, ordered society and constitutional institutions are to continue. A small minority of the people of Canada are endeavoring to impose conditions upon the majority by means ugly name. If the majority intend to submit to this movement, this is the time most appropriate for a

graceful expression of that intention. If, on the other hand, they propose to protect themselves against the predatory aggression of an organized few, they need not wait for further provocation. Fortunately, there are evidences that the real significance of the organized labor movement is being more clearly understood by the majority of the people, against whom the movement is aimed."

### THAT BONAR POINT COLLIERY

Mark Workman, President of the Dominion Steel Corporation visited Sydney lately and was of course interviewed regarding future operations of the company. The Record is more immediately concerned as to what he said in reference to coal mining operations. To the Glace Bay Gazette Pres. Workman spoke, in part, as follows:—

"The time has now come to announce an important undertaking.

"Bonner Point, on the north side of Sydney Harbor, where the Dominion Coal Company has land areas, has been selected as the starting point for new coal mining operations, to be carried into the Company's submarine areas. High grade metallurgical coal for the new plate mill is the objective. There will, of course, be no diminution of the coal output on the South side of the harbor; that, too, will be increased.

"It will be remembered," continued Mr. Workman, "that the sulphur content in the coal supplied to the Steel Plant was the subject of lengthy litigation before the formation of the Dominion Steel Corporation, some years ago. The impurity exists to a more or less extent in all Nova Scotia coals. In the case of the areas which our Company intends to open up the contents of sulphur is less than one per cent.

"The immediate reason for the sinking of the new mine is the imminence of the operations of the new plate mill. The quality of steel required in the manufacture of that mill's product is of high grade, and only the finest metallurgical coal should be used in its preparation."

This announcement brought T. J. Brown, Genl. Superintendent of the Scotia works at Sydney Mines to his feet, and to the Sydney Post, on urgent request, T. J. delivered himself not in heat but in "coal" blood as follows:—

"The opening of a Colliery in this district by the Dominion Coal Company has been threatened so often that we are not disturbed as much by it as was intended we should be. I do not believe the Dominion Coal Company are serious when they state they are about to open a coal mine in this district. I am sure they are not serious when they state that their reason for opening at Bonar's Head is to obtain a coal of low sulphur contents because I know that there is no low sulphur coal in that vicinity.

"I am equally sure they are not serious when they state that they require a better grade of coal than can be found in the Glace Bay and Waterford districts for the manufacture of steel to make ship's plates, and I am positively sure they do not require a better quality of steel for ships' plates than they do for the stock they have been using for the manufacturing of rails and munitions.

"If it had been stated that it required better

cloth to make an ordinary suit of clothes than it does to make an evening suit the public would see the joke; but it is taking advantage of the general public in the case of the steel business to make a statement equally absurd, regarding the material required for the manufacture of ships' plates. It does not require a specialist in clothing material to see the absurdity of the first statement, but it does require a certain knowledge of the steel industry to detect the absolute absurdity of the second.

"One would therefore reason that if they are not sound and serious in the two reasons they give for opening this mine they are not serious in the matter at all."

"It is said that an application is to be made or has been made to the mines department of the Nova Scotia Government by the Dominion Coal Company for permission to sink into and enter upon the land leases of the Scotia Company in order to reach their submarine leases in the vicinity of Bonar's Head. We are aware that the Dominion Company's engineers have had under consideration for some time the location of a site for a coal mine at that place and judging from previous plans exhibited by them, I have no doubt the location for a site will be the one best suited to hamper the future operations of the Scotia Company.

"The average height of coal in the old Sydney seam in the district known as Bonar's Head varies from one foot eight inches to four feet six inches. The cost of mining coal from a seam of this height would be excessive. The coal must be transported from the mine to the Canadian Government Railway at or near Florence, thence by rail to Sydney and from there by their own railway to the coke ovens. The present tonnage rate from Florence to Sydney is one dollar per ton. Now with coal at their door in the Watford, Glace Bay and Port Morien districts averaging from six to eight feet in thickness of practically unlimited quantity and certainty of superior quality, one can be excused if one doubts that the gentlemen who control the affairs of the Dominion Coal Company have the slightest notion of carrying out the fantastic forecasts appearing in the Press.

Mr. Brown closed the interview by saying there was no use disguising the fact that the Scotia Company is handicapped by the unfortunate fact that their inside and outside leases are divided by intervening leases of the Dominion Coal Company, and it is equally useless to disguise the further fact that up to the present time the Dominion Coal Company have not shown any burning desire to better the Scotia Company's situation in the matter; but he could not believe that their attitude in the matter would carry them to the extent of making large expenditures in a new field of operations, when they have at their disposal in the Glace Bay, Morien and Watford basins, enormous resources of unworked coal which can be mined very much cheaper and is much better suited for their purposes."

Of course the interview was too much for the flesh and blood of the Dominion Coal Co's. friends to stand and three several champions asked that T. J. stand up to them. We are content to give one of the retorts as three against one is not the code of fighting rules we go by. We would like much to

have published the comment by one who withholds his name, as he is a "suspect," while a brother. We omit the latter part of the reply as we do not think that any reference to the invasion of capital—of a certain kind—should enter into the controversy.

"The interview with T. J. Brown appearing in the morning issue of a local paper is perhaps the most remarkable contribution the public has yet received in connection with the so-called submarine controversy. An analysis of the interview shows that it contains the matter necessary to refute any claims made by Mr. Brown. As the public has been receiving coal areas, in homeopathic and heroic doses, during the past year it would appear that the time is opportune for a little more frankness on the part of the press and contributors.

Mr. Brown evidently has a motive in giving the public an interview such as this. Let me ask you to examine the matter of it carefully to see if he has been entirely frank. He howls loudly about the attempt of the Dominion Company to seek an entrance to its own coal areas on the North side. He tries to create the impression that this will embarrass the Scotia Company in its operations. At the same time he states the coal in the area for which they are making an application is too thin to operate, and even if it could be recovered, it would not be suitable for steel making.

What is there to embarrass the Scotia Company in the operations of any company in an area that contains no commercial coal. Is Mr. Brown quite frank? Why the long drawn out howl? Why the "Mr. Chas. men I protest," attitude?

Again T. J. is greatly concerned about the cost to the Dominion Company of the coal it might secure from this low grade thin seam on the North Side. This is the first glimmer of public sympathy the Dominion Company has received from its friendly neighbor for a long time. The long rail haul makes T. J. shake his head and droop in sadness. He sees good North side coal coming to Sydney instead of going over the Scotia pier. The fact that turning it into coke at Sydney will furnish hundreds of men with employment, (and incidentally T. J. with benzol for his numerous fishing trips) hardly compensates for his disappearance in a southerly direction. I fear if T. J. realized that the "long haul" is practically the same as the present haul from Morien, his sadness would be profound, and, a chronic case of melancholia developed.

Now, Mr. Brown, don't you think it would be a good idea if you left the question of quality of coal, cost of mining and transportation, and all other questions of this kind to the people who are going to put their money into the venture? These matters were evidently carefully investigated years ago."

Oh, by the way, the signature to this letter is "Philosopher." We would like to meet the chap as it is hard to find a man who is a "philosopher" and takes interest in coal. Of course we all know that the N. S. coal trade has a genuine humorist, but to have a philosopher as well, "cows a". Seriously our advice to all contestants is: "Gree brothers, gree; there's nae so many 'o ye." We lay down our pen, happy in the hope that some one will say of us—"Blessed are the peacemakers."

## - Rubs by Rambler. -

Scriptural texts have ramified interpretations, and taking advantage of the fact, I would through this one, "Let not your good be evil spoken of," deliver a short lecture. The Herald has a large circulation, and might be a power in the land were its articles, particularly on the Labor question, better balanced. A contemporary said lately, speaking of the attitude of the Herald, not possibly so much toward labor as to the featuring of certain labor leaders, and their vaporings, that if the miners took "drastic" action on the 1st Nov. or later came out on strike the Herald would be held in a large measure responsible. The statement cannot be called extreme. Rambler has a fearfully large mantle of mercy, but big as it is, it is not big enough to cover the Herald's shortcomings, and I am forced to endorse what a contemporary has said, and am sorry this is forced upon me, for I have known the Herald proprietor for over two score years. The Herald proprietor can do the work-headed leaders, that they become obsessed with their towering importance in the community. And when the featuring does not come at short intervals, then these leaders give utterance to further exorcences of speech so that the "featuring" may be continued. Why, bless the Herald's innocent heart, does he not recognise that wild words are uttered solely that the Herald may take hold of them and do big featuring in big headlines and so keep them, the leaders, in the public gaze. I do not want the Herald's good to be evil spoken of, therefore it is that I ask it to shun evil ways and when it writes on labor questions to write sensibly, as in the following extracts from its issue of 5th inst. Then truly the Herald would be helping honest labor:—

We are not disposed to believe that there can be much real ground for the alarm now said to be felt at Ottawa. Nova Scotian miners have usually shown themselves cautious as well as intelligent men. It has been their disposition to look before they leap. There is little likelihood of their doing otherwise at present. It is only a few months since some of them had a fair taste of unemployment and consequent distress. They cried loudly at that time for public assistance. They wanted the government to purchase and use Nova Scotia coal, regardless of price. They even insisted that this should be done; and ventured to threaten the premier with serious political consequences if he refused to comply with their wishes. They could see no reason why contracts for American coal should not be cast aside, and purchases made in Cape Breton for the purpose of giving employment to miners there, at the expense of the public.

Men who were talking in that way, and in such a tone so lately, would scarcely be in a position to strike, when all the coal they can produce will be in ready demand at good prices, providing abundant work at high wages for them. Besides they must know that general hard times are clearly in sight, when there must, and will be, almost universal

shortage of employment and reduction of wages. Now is their last chance of laying by something for the economic "rainy day," so near at hand. The American strike cannot but afford them a special opportunity. With so many mines wholly or partially shut down in the United States, there will be an unprecedented demand for coal, here and elsewhere. While the American strike lasts, there is certain to be a market for every ounce of coal which can be produced in Nova Scotia; and no miner need go unemployed, except by his own wish or rash act.

It would be worse than a rash act for them, or any of them, to attempt to dictate where or to whom the coal which they produce may be sold. All that concerns them is work for themselves, and good wages. The coal owners and the government will attend to the rest. If there is sufficient coal left to supply the needs of American vessels calling here after provision has been made for British requirements, it will undoubtedly be sold to them. The American government, in spite of its own difficulties, is most generously providing for the supply of Canada's needs. It has undertaken that the Dominion's supply shall not be more than proportionately curtailed. It would be churlish, it would be grossly dishonest, were we to refuse or fail to accord them similar treatment.

Nova Scotia miners may therefore rest assured that nothing of the kind will be done or would be tolerated by the Canadian public, whatever they may think, say, or attempt to do. It will be better to have a clear understanding on this point at once. A miners' strike in Nova Scotia, at this time, or in the near future, would be a very deplorable thing, deplorable for the public, and still more deplorable for the miners and their families. However deplorable and disastrous it may be, it will have to be faced if necessary, and will be faced, just as it is being faced in the United States.

The issue between a very small section of the people—the coal miners—and the whole people will have to be definitely settled some time. It might as well be settled now. Those who force it to an early conclusion by unfair means, are likely to have little cause for self congratulation."

## Around the Collieries.

A railway one and a quarter mile in length was built by construction Superintendent Thomson from Caledonia Mine sidings to Dom. 24 in three weeks.

Transmission lines have been built to Dominion No. 24 colliery, which pupils of the big three call Victory Number twenty-four, and the common people contentedly call "the Lake" colliery. These are used in lighting the surface and in the new deeps just started.

Development work by the Dom. Coal. Co is not confined by any means to new mines. Much is being done at Caledonia. In addition to what has already been stated a large trail rope engine is being installed in No. 13, east main level, for handling the full output of this level when its boundary line, some 7,500 feet from the entrance is reached. Lately the haulage system was extended 2000 feet. The output of this one level is 400 tons daily.

## AROUND THE COLLIERIES

The Dominion Coal Co. of late has been shipping every available pound of coal it could spare to Holland under contracts entered into some time ago.

The first output recorded by the newly re-opened Victoria Mines to the General Office at Glace Bay, was 75 tons. This was made on Nov. 4th. Coal was produced a few weeks previously but the output was microscopic.

Dominion No. 1 has undergone needed changes, and conditions are improved. The air lines have been enlarged, by replacing small pipe lines with large pipes and other improvements. The air pressure at the faces is now sufficient for all coal cutting air machines.

To change over from horse to mechanical haulage all the level roads of Caledonia Mine, Dom. No. 4, have been relaid with 30 lb. rails right into the inside headways. Large landings 250 feet long have been made to handle long trips, when the new haulage has been started.

All the levels of Dom. No. 4 are worked double shift with radial coal cutting machines. This is to hasten development work in the submarine territory. Where pillars cannot be extracted, much more territory has to be opened up to obtain an output equal to that from land areas.

The lower levels of Dom. No. 1 are to be extended and pushed in for upwards of 2000 feet. This is very encouraging news to the men of this, the foremost, or if not that in output the best in other respects, of all the Dominion collieries. This extension means a larger lease of life and activity.

The outputs of the Dominion Coal Co. for October show an encouraging increase. It is to be hoped President Workman's expectations of increased outputs, for the future, will be realized, even though the outputs for the first days of November were not records. Indeed the mines celebrated the 1st of Nov., the day of the U. S. miners strike, by a fifty per cent less output.

A large underground pumping station is being made on No. 10 west landing of east side of Dom. No. 4 colliery, for the purpose of the more efficient and economical handling of the mine water. The roof for the new pump house is being blasted down. When completed three more electric pumps will be installed. The capacity of the pumps will be 2000 gallons per minute which is 500 gals. more than the mine is presently making. From this station the water will be pumped through a 12 inch bore hole, while the electric cable for power will run through a 6 inch hole. This change will eliminate three air pumps at the bottom of the west deep, used for keeping old Dom. No. 3 colliery free from water.

Is it not about time "jealousy" had consumed the Sandra of a majority of the daily provincial papers?

The main haulage road of Dom. No. 4 Colliery, Caledonia, has been extended 1,500 feet and double tracked. The rails on the full side are 60 lbs. and those on the empty boxes' side 30 lbs. rails. The roof of this roadway is supported by 60 and 80 lb. steel rails and special timber.

The prevalent impression is that coal will be a scarce commodity for a time, and that there will be no diminution in the cost to consumers, if there is not an increase. The collieries are working to their capacity, so some newspapers say, but that is not the opinion of the Mining Record, unless we are permitted to make qualification. In the summer time there was complaining as to idle days at the collieries. At present there are no idle days, and the complainings are on the side of the operators of, what may be termed, a "ca canny" policy on the part of the operatives. The outputs are not what they should be. The output of the Dominion Coal Co.'s collieries has reached 12,000 tons on a day, and on another day it fell to less than half that quantity. Why? Oh ask those who, one paper soberly and another sarcastically dubs "the big three." Half of the men took an off day and the big three made not even a little remonstrance.

The Sydney Post says that the Dominion Coal Co. has made application to the Dept. of Immigration for liberty to import 400 shooters and loaders, in order to increase production. No such men, the Post declares, can be obtained in Canada. "The Mines Act explicitly states that only certificated men may be employed as shooters and loaders." Is not the Post in error as regards loaders? As a rule loaders are not held to be "skilled" workmen, and we have not heard of certificated loaders though shot firers require to be holders of certificates. He is doubtful, too, if "shooters" could be given employment as such unless by special dispensation of the Legislature, and then only if they could stand an examination in English.

Pietou County has an addition to its coal companies. The name of the latest is the Lanark Engineering Co. This company, it is said, has a contract of driving four slopes on the McBean seam at Thorburn. The total length of the slopes will be 3300 odd feet. Cross cuts between the several slopes enable the new company to hoist a rather remarkable tonnage daily, from purely development work. The tons hoisted daily are over the hundred mark. Messrs. Mitchell and McCulloch of New Glasgow, are the active partners in the enterprise. It is to be hoped that they may receive sufficient reward for their enterprise. So far a ready market for the coal is found in Halifax.

## Around the Collieries

To give a good supply of fresh air at the working faces, the main air lines are kept close up, and no line of small pipe causing much loss by friction, is allowed in Caledonia Mine. The same is true, in another way, of the roads in rooms. The main way is kept as close as possible to development work, and thus facilitate good haulage and desirable output.

When seeming ignorance is undiluted stubbornness should it be called a "shame." If so, then one has an interpretation of what is meant when it is said of a person. "He glories in his shame." Though often reproved, the Gazette still persists in using big letters when it misspells "Stirling", Sterling. Is the Gazette aware that it is withholding from the dead what is his due? Oh! some may say, it is only the change from an "i" to an "e". True, that is all, but with the "i" it refers to a man, with the "e" it applies to exchange. The friends of Cape Breton's Mark Twain call him Charley O'Dell. Just try to take away the first "i" and substitute an "e", making it O'Deill, and see what a cleaning up of the Gazette reporters there will be. There would indeed be the "Deill" to pay.

The air courses of Dom. No. 4 are being freshly cleaned and re-timbered with steel rails and special timber, special timber means good spruce. Manager Casey, with the other officials of the mine had for years been experimenting with the different kinds of pit timber and have found spruce to be by far the better kind of the soft woods for pit purposes. The table showing the results of tests made by the Halifax Technical College some years ago, show very little difference between spruce and fir, when the breaking strain was applied. But besides a breaking strain there is the test of duration, or the length of life in a coal mine, when subjected to weight and the mine atmosphere. In a moist mine atmosphere, spruce gives the best results. The writer remembers, in the early days of Springhill, when no miner would set a fir prop, especially if it had to be placed in the lower part of the pillar—or where it was started.

The Record regrets to say that negotiations relating to the taking over the Inverness collieries are not proceeding satisfactorily. It is claimed that the cost of production, owing to the much bad water made, and the peculiarities in the lay off of the mine, make it hard to close a bargain. Perhaps those who are in the habit of shouting for government operation of coal mines, will bombard the Commissioner of Mines and ask what the government intends to do about it, that is in finding means for the steady continuation of operations at Inverness. What the Record suggests is that the holders of the St. Rose, the Inverness and the Mabou areas join forces, and dispose of this large field to men who are not afraid to risk a million or two of dollars.

Mr. Cadwallader Evans, formerly General Manager of the Acadia Coal Co., is now General Manager of the International Salt Co., of New York. This company has very extensive works. Mr. Evans removed lately from Rochester to Ithaca, as the latter is more centrally located as regards the company's plants which are scattered widely over central New York state. In extending an invitation to the editor of the Mining Record to visit the works Mr. Evans says:—

We have a number of very interesting operations near Ithaca at which we manufacture all grades of table and commercial salt from brine obtained from a salt bed some 1600 ft. beneath the surface. The salt, brought up in the form of brine, is recovered by evaporation in huge multiple effect vacuum pans. At Retsof, N. Y., and Detroit, Mich., we have two very interesting mines with shafts about 1000 ft. deep, where we obtain the salt in the dry mineral form. I am sure that you would be very much interested in the operations at these mines and hope that if you make a trip next Summer to the States you will arrange to come out and see us and go through the mines.

The once familiar and yet capriciously elusive "Mullins" has, on the authority of the Sydney Post—which rarely indulges in sensational head lines—once again bobbed up. Says the Post: "At present the Company (Dominion) has a few workmen engaged cleaning up around the outcrop of the Mullin's seam, midway between the old Victoria Mine and Low Point Church, and a distance of a mile from the shore." Mr. O'Dell, the company's well known C. E., has for years been endeavouring to make acquaintance with this seam. Many times he has called at its alleged residence, but never once found the seam at home, and though he consistently left his card, the seam never once repaid a visit. Now that the residence of the seam is given in detail, it is Mr. O'Dell's duty to call on it once more and make handsome apologies for having consaw the seam once and made repeated attempts to demands of Mr. O'Dell that he make immediate reparation for the great wrong perpetrated on this once again to be famous coal seam.

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Schools—Coal Companies of Nova Scotia—New  
Seams, Stellarton—Nova Scotia Coal Sales, 1811-  
1917—Staff of Mines Department and Some Pro-  
duction Comparisons.

### NOTICES OF THE BOOK:

Favorable, indeed flattering notices are being received of the book issued by the editor of the Mining Record. That youthful modesty which is, as many know, a characteristic of the author, forbids a rehearsal of many of the nice things said. At the same time, that arrogance, also characteristic of youth, impels him not to hide them all in a napkin. Here is a little coincidence. With the same mail came two notices and both from McInnes's, one a former District Superintendent of the Dominion Coal Coy., and now a wholesale coal merchant in Montreal, the other from a highly respected citizen of Port Morien:

"While in Cape Breton two weeks ago I got a copy of your new book. It is very interesting—brings back the old days. The coming generations will find it an accurate story of the periods just passed, when Nova Scotia came into her own as a coal producer and as a pillar in our industrial development."—Mr. A. McInnes.

And this from Daniel McInnes: "I congratulate you on your authorship—the right man in the right place. No other man could write such a history without the knowledge you possess.

And these:

R. McDougald, Westville: . . . All that comes from your pen is always to the point, and within the limits of human knowledge, accurate. I am very glad that you undertook to conserve the acquisitions of a life time of special study and observation in a book. It will no doubt prove helpful to many a Canadian mining student.

John Moffatt, Dominion, C. B.: I have read your book and am convinced that to the great work accomplished by you in the sphere of labor, in the past, you have added another service which will endure for many years, and be often quoted from. The Province of Nova Scotia is indebted to you in many ways, and this well written book adds to that obligation.

This from another C. B. correspondent:—The book made a hit. It has proved itself a success. I have heard not a few complimentary remarks, both regarding the book and the author. I hope the 2nd and the 3rd editions will be called for before long.



## Synopsis of Coal Mines Regulations.

COAL mining rights of the Dominion, in Manitoba, Saskatchewan and Alberta, the Yukon Territory, the North-West Territories and in a portion of the province of British Columbia, may be leased for a term of twenty-one years, renewal for a further term of 21 years at an annual rental of \$1 an acre. Not more than 2660 acres will be leased to one applicant.

Application for a lease must be made by the applicant in person to the Agent or Sub-Agent of the district in which the rights applied for are situated.

In surveyed territory the land must be described by sections, or legal subdivisions of sections, and in unsurveyed territory, the tract applied for shall be staked out by the applicant himself.

Each application must be accompanied by a fee of \$5 which will be refunded if the rights applied for are not available, but not otherwise. A royalty shall be paid on the merchantable output of the mine at the rate of five cents per ton.

The person operating the mine shall furnish the Agent with sworn returns accounting for the full quantity of merchantable coal mined and pay the royalty thereon. If the coal mining rights are not being operated, such returns should be furnished at least once a year.

The lease will include the coal mining rights only, rescinded by Chap. 27 of 4-5 George V. assented to 12th June, 1914.

For full information, application should be made to the Secretary of the Department of the Interior, Ottawa, or to any Agent or Sub-Agent of Dominion Lands.

W. W. CORY,

Deputy Minister of the Interior.

N. B.—Unauthorized publication of this advertisement will not be paid for.—83575.

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- 4 Annual Mineral Production Reports, by J. McLeish, B. A.
- 5 Analyses of Canadian Fuels, Parts 1 to V, by E. Stansfield, M. Sc., and J. H. H. Nicolls, M. Sc.

The Mines Branch maintains the following laboratories in which investigations are made with a view to assisting in the developing of the general mining industries of Canada:—Fuel Testing Laboratory, Dressing Laboratory, Chemical Laboratory, Ceramic Laboratory, Structural Materials Laboratory.

Application for reports and particulars relative to having investigations made in the several laboratories should be addressed to The Director, Mines Branch, Department of Mines, Ottawa.

R. G. McConnell, Deputy Minister.

### Geological Survey.

Recent Publications:

Summary Report. The annual Summary Report of the Geological Survey is now published in parts. Applicants should, therefore, state what particular geologist's report is required, or what subjects they are interested in.

MEMOIR 20. Gold fields of Nova Scotia, by Wyr. Malcolm.

MEMOIR 44. Clay and shale deposits of New Brunswick, by J. Keele.

MEMOIR 59. Coal fields and coal resources of Canada, by D. B. Dowling.

MEMOIR 60. Arisaig-Antigonish district of Nova Scotia, by M. Y. Williams.

MEMOIR 78. Wabana iron ore of Newfoundland, by A. O. Hayes.

MAP 63A. Moncton Sheet, Westmorland and Albert Counties.

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