

Dr. R. Bell
Geology Dept.

136 MacLarn St

Maritime Mining Record

Feb. 9 1916

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BUNKER COAL Shipping facilities of
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Superior Dir.	Inferior Dir.			
404	402		401	401
P. M.	A. M.		P. M.	A. M.
7 25	10 02	POST TUPPEL	2 44	10 00
8 00	10 20	INVERNESS JUNCT	3 11	11 00
8 12	10 29	PORT HAWKESBURY	3 29	11 11
8 50	10 52	PORT HASTINGS	4 03	11 20
P. M.	10 57		4 08	A. M.
	9 57	TRON	4 20	
	9 44	CUPERSH	4 33	
	9 27	GRANDMOIRE	4 45	
	8 58	ST HOLE	4 53	
	8 50	MARVILLE	5 13	
	8 41	PORT HOOD	5 25	
	8 35	SABOU	5 32	
	8 23	GLENGOR	5 48	
	7 54	GLENDYBE	6 11	
	7 40	BLACK RIVER	6 23	
	7 25	STRATHLOUNE	6 48	
	7 12	INVERNESS	6 53	
	6 55		7 05	
	6 31		P. M.	

MINING RECORD

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-AND-

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AND

Domestic

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Unexcelled for General Use.

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of
Wire Cloth
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Hay Mills,
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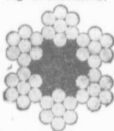
Agent:—

H. M. WYLDE,

P. O. Box, 529,

HALIFAX, N. S.

Fig. 2. HAULING.



LANG'S LAY ROPES.



Fig. 26. WINDING.

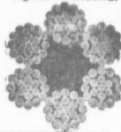
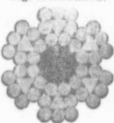


Fig. 1. HAULING.



PATENT FLATTENED STRAND ROPES.



Fig. 4. WINDING.

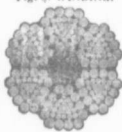
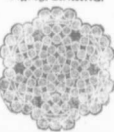


Fig. 13. SINKING.



Advantages of Patent Flattened Strand Ropes.

1. Greater wearing surface, therefore longer life of rope and less wear upon pulleys.
2. Greater strength, thereby admitting of smaller ropes being used for existing loads, or of increased loads without increase in size of rope.
3. Spliced easily and more effectively.
4. Less tendency to twist and stretch in working.

Fig. 11b. CRANE, &c.

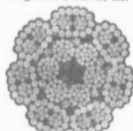
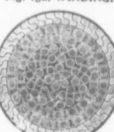


Fig. 13 for Sinking & Fig. 11b for Cranes, &c., are non-twisting.

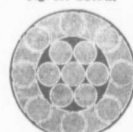
Fig. 15a. WINDING.



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Indispensable for deep shafts.
Stronger than any other rope of same size.
Entirely free from twist.
Smooth surface reduces wear to a min. um.
Duration far ahead of any other construction.

Fig. 20. GUIDE.



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Hon. P. E. Blondin, Minister.

Mines Branch.

Recent Publications:

- Building and ornamental stones of Canada, (Quebec), Vol. III, Report on, by W. A. Parks, Ph. D.
The Bituminous Sands of Northern Alberta, Report on, by S. C. Ellis, M. E.
Peat, lignite, and coal; their value as fuels for the production of gas and power in the by-product recovery producer, Report on, by B. F. Haanel, B. Sc.
The petroleum and natural gas resources of Canada. Vols. I & II. by F. G. Clapp, M. A. and others.
Electro plating with cobalt, Report on, by H. T. Kalmus, Ph. D.

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, Ore-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:

- MEMOIR 16. The clay and shale deposits of Nova Scotia and portions of New Brunswick, by Heinrich Ries and Joseph Keele.
MEMOIR 20. Gold fields of Nova Scotia, by Wyatt 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.

Applications for reports should be addressed to the Director, Geological Survey, Ottawa.

The...
MARITIME MINING RECORD

Vol. 18,

Stellarton, N. S.,

February 9th., 1916.

No. 15

MINE FIRES AND HOW TO FIGHT THEM.

(Continued from last issue.)

Electricity.

Many fires in mines are started by short circuits of electric current setting fire to coal, timber, brattice, doors, or track ties. To prevent short circuits the electric wires should be insulated at all points of contact. Bare wires should not come in contact with the coal, timber, doors, or any material that will burn.

In the event of a short circuit the current should be immediately thrown off the wire, and any fire that has started should be put out. Many mines are provided, at convenient places in the workings, with boxes of dry sand or barrels of water and galvanized buckets. If a fire starts the employees should not be afraid to use these, even though the fire be small.

Open Lights.

The careless use of open lights often results in serious mine fires—timber, stoppings, brattice, or gas feeders being set on fire in this way. If open lights are used in a mine, the following precautions will reduce the danger of fires:

Use a safety lamp or an electric lamp to furnish light when wooden stoppings are being put up or repaired.

Do not use open torches for testing wooden stoppings for leakage of air.

Keep open lamps away from brattice cloth, unless the latter is fireproof.

In places where brattice cloth is used a barrel of water is often placed near by, with a bucket or other vessel for throwing on water in case of fire.

At points where timber cribs are in use in dry places, the barrels of water for fire protection should be kept filled at all times, and buckets should be kept in place ready for use.

Hay.

Hay, when taken into a mine, should be handled in bales, covered with a fireproof canvas, and enclosed within a car, or, if no canvas is at hand, the hay should first be dipped in water. Hay should be taken into a mine only when the miners and other workmen are out of the mine. Open torches should not be used near hay. Safety or electric lamps handled or stored. Do not store hay in passageways between the hoisting and air shafts, unless there is ample protection against fire. If hay is stored in a compartment separated from the stable by a door, the door should be kept closed except when hay is being stored or removed. If loose hay is stored in break-throughs or along the haulage

roads, which is bad practice, it should be covered with fireproof canvas and a barrel of water with buckets should be placed near by. The barrel should be so placed that the ventilating current will pass it first; otherwise, if the hay catches fire, the smoke and fumes from it may prevent anyone from getting to the water.

Underground Stables.

Stables under ground often furnish conditions favorable to the starting of a fire, and especial care should be taken in using lights in a stable.

Do not use open lamps within the stable, but use electric or safety lamps if they are provided.

If lines of water pipe with hose connections and automatic sprays are provided they should be kept in working order; barrels of water with buckets should be kept in the stable.

Chemical fire extinguishers should be kept near the entrance to the stable, and the miners should learn to use them.

Underground stables, even though they are made fireproof, should not be used for storing any material that burns easily.

Should a fire start in a stable within a mine and the stable has iron doors, these doors should be closed at once, to prevent the fire from spreading.

Lubricating and Other Oils.

Loss of life and damage to property have been caused by lack of proper care and by not using good judgment in handling and using oils within mines.

Oil should not be stored within a mine. Daily supplies should be taken into the mine in closed metal vessels. Do not use open lamps when handling oil of any kind, not even when greasing or oiling car journals.

Keep oil away from dry timber, loose waste, or hay.

When mine-car journals are oiled within the mine, this work should be done in the special place provided by the company. The track at this place should be ballasted with broken stone. No timber should be used along this part of the track. Keep plenty of sand in near-by places to be thrown on a fire in case one starts.

If an open cask or barrel of oil or grease takes fire, do not overturn it, but cover it with a piece of canvas or an iron plate, so as to exclude the air and smother the flame. If a pyrene extinguisher is at hand, use it.

Underground Furnaces and Boiler Plants.

Ventilating furnaces and boiler plants in mines are a source of constant danger from fire. If such furnaces or plants are in use many precautions should be observed, of which the following are the more important:

(Continued on page 14.)

MARITIME MINING RECORD.

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

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

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

Subscription \$1.00 a Year. ——— Single copies 5 cents

R. D. RUMMOND, PUBLISHER.

STELLARTON, N. S.

February 9, 1916.

THE SHELL COMMITTEE UNDER FIRE.

In the Federal parliament some fierce speeches in reply to the address from the throne were directed against the Shell Committee, and there was much more implied than which the language of the speeches implied. Indeed one was led to infer that than the Shell Committee a worse set of rogues could not well be found. From the inception of the work of the committee the Record, having an idea of the difficulties facing the committee, spoke strongly in their favor and in spite of all that was said we are still of opinion that the committee not only did grand work, but did it most successfully and without the remotest idea of personal gains. The committee may have made mistakes. We do not say that they did, but if they did these may be overlooked in view of the novelty and the magnitude of their work. The Record's stand has not been without its influence. It has impelled a well esteemed liberal contemporary to forswear its inclination to censure and take a firm stand in defence of the member of the committee most zealous in its labors. Below we give an article from the Sydney Post which relieves us from any necessity to make further defence of the committee:

The vigorous address of Major-General Sir Sam Hughes on the work of the Canadian Shell Committee differed from that of Mr. Pugsley, Mr. Carvell and other Opposition critics, in that the Minister of Militia fortified his statements with authenticated facts and avoided the tricks of the professional politician. The unproven Opposition statement that Canadian manufacturers have exacted a larger price for the output of their plants than American shell makers, Sir Sam met and refuted by giving definite quotations of Canadian and United States prices.

The Canadian price for the first order of 18-pounder shells was \$8.55, of which \$5.15 was for the assembling of the materials and the machine work done on them. The second order received by Canadian manufacturers was placed at \$5.00 per shell. In this case the cost of assembling the materials and of the machine work done on them was reduced to \$3.80, the lower price being due to the better organization and increased efficiency which had come to the Canadian manufacturers by virtue of their initial experience. Sir Sam gave figures to show that many firms had spoiled as high as forty per cent. of the shell materials they were handling, owing to inexperience at the outset of the work. The cost of machining and assembling has now been so reduced that the present Canadian

price stands at \$1.85 per shell as against \$2.20, just quoted by United States manufacturers for the latest order placed with them by the Russian government. In almost every case the Canadian price is lower than either that ruling in the United States or in Great Britain. Sir Sam is authority for the statement that 4.5 shells are made in Canada at \$7.45 a piece, whereas the British price for the same shells is \$10.33. For 4.5 shell forgings the British price was \$4.50, and the Canadian \$4.25 for the first order, \$3.60 for the second, and now stands at \$2.95. For the machining of 18-pounder, high explosive shells the British price is \$3.81, and the Canadian price \$1.85, 6-inch shells made in Great Britain cost \$19.94, and in Canada \$16.85. The British price of forgings for these is \$9.23, and the Canadian price \$7.90.

The gravamen of the complaint of the Opposition in parliament is that the members of the Canadian Shell Committee were in almost all cases directors of companies which received shell contracts. In ordinary circumstances such a situation would unquestionably raise a prima facie case for clear scrutiny of the work of the committee and the character of the contracts they let, but, as Sir Sam Hughes points out, it was because General Bertram, Colonel Cantley and their colleagues were experts in the steel business that they were called together and organized into a committee for the purpose of developing a shell manufacturing industry in the Dominion. Had the work not been undertaken by the plants which these gentlemen represented it would never have been undertaken at all. The prices which were paid to the concerns represented by them were fixed and agreed upon by the British authorities. The element of competition was thus eliminated from the situation. All concerns which could make shells were given contracts. The British government had no cause to complain of the contracts it made, for the prices quoted above show that there is nothing to complain of on the ground of cost.

The achievements of the Shell Committee in building up a great Canadian industry and helping Britain to solve the munitions problem are, as Sir Sam Hughes well says, above all praise. Up to date Canadian manufacturers have produced 22,000,000 shells; have consumed 800,000,000 pounds of Canadian steel, 45,000,000 tons of brass, zinc and copper, and enormous quantities of other Canadian products. They are affording employment to 90,000 skilled mechanics in the manufacture of war munitions. Over 1,000,000 shells are being shipped from Canada to Great Britain every month, and the total shell orders received to date aggregate in value the enormous sum of \$250,000,000. To injure the reputation of a committee of Canadian manufacturers who have such substantial achievements to their credit will require something more than the little-tattle printed in the "Liberal Monthly" and the innuendoes of so unreliable a politician as the Hon. William Pugsley. In the absence of any charge of wrong-doing, parliament is not likely to consent to place the members of the committee in the position of culprits before an inquisitorial tribunal at the request of a handful of professional scandal-hunters. The government stands ready to investigate all charges of wrong-doing. But the charges must precede the investigation.

The following from the Financial Post, which

should have no political bias, is sufficient reply to Carvell and his colleagues:

One fact emerges plainly from the hubbub which has been raised in Parliament this week over the letting of the shell-mine contracts in Canada, and that is that, whereas in the Shell Committee's time there was disorder and chaos in the handling of the business, there is now under the Imperial Munitions Board, order, organization and effective administration. It is pretty generally understood that the demand for an investigation of the Shell Committee's affairs is but gallery play. Everybody knows, as the members of the late Shell Committee are concerned there is no graft to investigate. A commission is not needed to uncover incompetence and lack of ability to organize and administer business.

Says the Glace Bay Gazette: "In the statement just issued by the Imperial Munitions Board regarding shell contracts," says the Mail, "it is asserted that there are large arrears of delivery on present contracts. This is put forward as an explanation of the failure of Canadian manufacturers to receive more contracts.

"The information will come as something of a shock to those who recall the recent assertions of Sir Sam Hughes in his defence of the late shell committee before parliament. The minister of militia described the situation in Canada as a model for the rest of the Empire. He read a cable from Lord Kitchener congratulating him upon the prompt delivery of shells and gave the distinct impression that everything was as it should be, and even better than might be expected in this connection. Even grantitions Board was and is inevitable, it is strange that credit should be taken for efficiency and despatch that were not in evidence."

The Gazette would probably not have written any comment had it realized that the very ones who are behind in their contracts are those who started the howling against the shell committee for discriminating. Possibly the Mail is in error in saying there are large arrears of delivery. There are large contracts unfilled for the simple reason that the time for the delivery of the shells has not been reached. "Cement," as it is called on the Montreal exchange, has, the papers say, a big contract for shells. Not a shell, we believe, has yet been delivered but yet "Cement" is not in arrears for the reason stated. If there are other outstanding big contracts, like that of Cement, it may not be a matter of wonder that the British authorities hesitate to enter into other contracts.

THE NEW FOUND SEAMS.

The finding of new coal seams by the Acadia Coal Company is attracting attention in the other mining counties. A veteran who worked in the Alton mines, say three score years and more ago, sends a letter to the editor part of which we reproduce below. The opinion held by many is that if off the Drummond seam it runs fault does not cut struck. Some expect to strike the Drummond seam some day on the east side of the East River. As a reminiscence, what this veteran mining man, though

not a professional geologist, says, is most interesting.

"I am glad that you have discovered such a fine coal seam at the old Albion mines. Be careful you don't run into the old workings of the Drummond mine when opening up. It is hard at times to say what curious twists a coal seam takes under cover. I will not be surprised to hear of other discoveries of coal under where the bore went in the test across the East River nearly opposite the railway station, that is if 'you' have spare cash.

"I well remember one day about seventy odd years ago that I was walking down the old Mark road from Fox Brook with an old gent man by the name of Colin McKay. Red foxes gave Fox Brook their name. He was a travelling merchant, when corner stores were few in the county. We came to a little pole bridge on the road. Under the bridge ran a fairly heavy stream of water. The water was as red as metallic paint. While standing on the bridge looking down on the water Colin said to me: Boy, what makes the water so red? With that assurance or arrogance of youth I said 'It must be the 'red' foxes.' There were lots of red foxes in the locality at that time. His reply was: 'No, boy, it is not the red foxes who color it, it is a big lot of iron lying around here somewhere that does it.' After I had reached man's estate and had knocked through the world a bit, whenever I saw red water near coal seams I could always see Colin hidden in the earth far from sight, and yet that at some time in the future they would all be discovered and put to the service of man. Colin was about 6 feet 8 inches tall and, like all the men—and women also—at that time, had an implicit faith in his Bible and veneration for his church and minister, and although he did at times give way to the tempter when he got over it.

"If I am not in error the geologists have confined the coal seams in Pictou County within certain limits. Don't pin your faith too strongly on their 'dictums.' I am no kid now, and have known many of their theories to pale before practice.

"When you need yet another new seam of coal, start boring again, and possibly you will find what you are after. All the way up the East River keep boring until your bore rods strike in the vicinity of the Red Brook on the old Mark road, and then when you find, as you undoubtedly will, something, what a joke Albion mines will have on the remainder of Pictou County."

- Rubs by Rambler. -

A contemporary quotes from a contemporary what it styles a "learned article" on coal leases and the working of them, with special reference to the closing of the Thorburn mine. We are told that in former times the government retained power to forfeit all leases that were not worked. This state has on an example of the obfuscating effect politics has on a man's mental vision. It is true that leases were forfeitable on which a certain amount of work

was not done each year, but that is an entirely different thing from saying "which were not worked." The act did not apply to coal areas so much as to areas containing the precious metals. At any rate no one ever heard of a coal lease being forfeited because it failed to comply with the statutory enactment of a certain number of days work on it. The old law was that an area, a lease, was forfeitable if ten days' work was not done on it. There was no reference to the sort of work that was to be done, except that latterly the act emphasized the order that the work was to be real, not colorable. Why was this law abrogated and a yearly rental substituted? Simply because a holder of a lease had easy conscience as to what constituted "work." If he walked over his lease and picked up a pebble or two and threw them away, or hired a man to do ten days' work at a dollar a day, digging a drain or burning brush, he in his opinion complied with the law and affirmed thereto. The old law was a screaming farce. There may be objections to the present law but it has worked fairly well and has brought a deal of money into the Mines Department. It is suggested that the government secure legislation to escheat all unworked areas, a power that it does not now possess. They better leave well enough alone. Any such power given the local government, and exercised would, instead of remedying matters, make confusion worse confounded. It would be a law difficult and unpleasant of enforcement. If a mining company suspends operations because of insufficient capital, or from some untoward condition, will it be similarly dealt with as the company that shuts down a mine because there is no profit in it? When about Broughton, and Mabou and Port Hood and the McKay mine, all in Cape Breton? Will the leases of these areas to the present owners be cancelled if the area of say the Acadia Coal Company at Thorburn is escheated? Can law be made so that the Mines Department may discriminate, and while allowing Mabou, and Port Hood and many other areas to remain in the hands of their present owners on the ground that but comparatively few people are affected, will escheat some other area on the plea that the non-working of the area affects a number? The less escheating or other like procedure the government enters into the better for its finances and the community in general.

The prevailing opinion is that Mark Workman, the new president of American Steel, will spend a fair proportion of time in Sydney. The opinion has got abroad that there will be changes in the staff. There is, it is said, to be a new working head. On a previous occasion the Record hinted that there was one now on the staff who might fill the bill better than a stranger. The following in reference to contemplated changes is from the Sydney Post:

"That there will be a general reorganization of the management of the Dominion Iron and Steel Company at an early date seems to be generally anticipated. The Montreal Star says that it is understood that the Company will shortly engage a well-known steel expert to supervise the direction of the operations of the plant, and to advise regarding its general policy for the immediate future. There is little doubt that the Dominion Iron and Steel Company, like other great industrial concerns, is now face to face with momentous

problems. War orders, it is true, are plentiful; prices are good, and it is believed that the concern is at present prosecuting a highly profitable business. But Canadian industrialism must utilize the time which will elapse between now and the conclusion of the war to adapt itself to the critical period of readjustment which every shrewd economist foresees will ensue immediately on the conclusion of peace. Industrial business will then be as plentiful as at present, if indeed even greater opportunities are not opened out for the conclusion of the war. The great question is, What countries will profit by the changed conditions? It will be some years before German and Belgian competition will be anything like the factor it has been in the markets of the world. With the return of peace will come enormous demands for all kinds of steel products. To anticipate the character of these demands, and to forecast after-the-war market conditions, and make timely preparation to meet them, should be the present concern of Canadian industrial enterprises. Men of faith and vision, with progressive ideas and the determination to see them realized, are the kind of officials that all Canada's great industrial concerns require at the present time. There is no Canadian enterprise which should have such a future before it as the steel industry. On high national grounds it is therefore desirable that officials of the right type should be entrusted with the development of the policy which the Dominion Iron and Steel Company is to pursue from now on. The reorganization which it is believed is foreshadowed by the recent changes in the directorate will therefore be looked forward to with very general interest."

THE PROBLEM OF THE TOWN.

When we have done our duty by agriculture we shall still have with us the problems of the town. We have good need to be ashamed of most of our industrial centres. Little wonder it is that those who make wealth in them are found as a rule carefully to avoid living in them. Increasingly we find the industrial captain motoring out of the factory surroundings to some jolly little place in the country near by, where a decent life may be lived. Our towns must be changed out of all knowledge, or it avails little to raise wages. I have been in plenty of industrial towns in this country in which I have said to myself that it would not be worth while to be a millionaire if compelled to live in such streets as I saw around me. While Smokytown remains Smokytown, with its gloom and unloveliness, it matters little whether 30s. a week is raised to 35s., or 35s. to 40s. There must be both higher wages and the opportunity to spend higher wages in homes and towns worth living in."

THE STATUE OF LIBERTY WITH ARMS UP.

It is generally known that the French nation presented to the United States the gigantic statue of Liberty, which guards, with one arm aloft, the entrance to New York Harbour.

Said a famous author recently: "A French friend of mine, annoyed at one of President Wilson's latest notes, told me the other day that, if his nation had had a proper prophetic insight, the statue would have had both arms aloft—in token of surrender of liberty."

AROUND THE COLLIERIES

On a day last week the Allan shaft output went over five hundred tons. A few more men have come along, and more will follow as the new superintendent inspires confidence.

One of the ministers of the Crown is authority for the statement that Thos. Cantley supported E. M. Macdonald at the last election. If he did the Record's only comment is "The sly beggar."

The pits stopped at half time municipal election day. This led many to say that the "coal famine" was at an end. The company would rather that the men had worked but in deference to the wishes of their workmen stopped the pits at half time.

There are sufficient places in the several mines of the Acadia Coal Coy. for an output of at least a third more than the present output. In other words, if the company could secure about a hundred more men the output would be increased by about six thousand tons daily.

Did not several liberal papers within the past year or so ridicule the federal government as being a government by commission? Well, what have they to say of the local government which has been revelling in commissions of late? Two, at least, have been appointed since the first of the year. And yet the government tells us it is hard up.

The local government has appointed a commission to enquire into the feasibility of the reopening of the mine at Thorburn and kindred matters. The commissioners are G. B. Murchell of the Colonial Mining Co., Tom Hale, formerly manager at the Drummond colliery, and McLeod of the Inverness Railway and Coal Coy., all fairly good men with the crowning virtue, in the eyes of certain newspapers, of being irrefragable grits.

Boring is not proceeding rapidly at the present time from the McGregor down, owing to difficulties encountered. The angle of the bore hole is say sixty degrees. The drill has gone through several bands of shale and soft clay. These fall and block up the hole. In order to prevent this after a certain distance has been gone through the newly bored part is filled up with cement. After the cement has set it is bored through and a solid hole thus secured.

Three shifts of men are now employed in the new found seam driving right and left. There are thirty-six men in the three double shifts. Three levels in the meantime are driven for purposes of ventilation, but will eventually be the beginning of levels to be driven a thousand feet at least in order to prove the quality of the coal. If the coal in that distance is of approved quality then the levels will be continued a further distance of a thousand feet before general development begins.

Mr. C. A. Meisener, formerly manager of the Londerry iron works and later with the Dominion Steel Co., and who now fills an important position with the United Steel Corporation, desires through the Record that remembrance be conveyed to old friends. Mr. Meisener, as an inducement to keep at it, says he takes great pleasure in reading the Record.

There are those who say that the governmental investigation in regard to affairs at Westville was nothing more nor less than a cushion on which the government, the Department of Mines or the governmental official might fall if critics became too noisy. Oh, the scoundrelly slanderers.

The new seam is a trifle gassy, and on that account slower progress is being made in development than hoped. On Sunday last the big motor fan was set to work to dispel the gas. Of course where there is much gas there is less danger, or ought to be, as to be forewarned is to be forearmed. It is when gas has unheeded lurking places that danger at times exists.

Reference is made in Mr. Poole's review of the Pietou coal field of a seam at the Albion mines called the Purvis, said to be four feet six inches thick. Strangely, no attention has been paid to it until lately. Mr. Notebart, who is of an enquiring turn of mind, has "drifted" from the slope underlying to the Purvis. The coal was struck last Thursday. At this writing the full face is not exposed, but if the seam is as thick as reported the coal in it will be worked at an early date.

The hint of a correspondent to be careful in exploring the new 20-foot seam, not to run into the old workings of the Drummond, while it may seem to some a good joke, may be worth considering when all is said. Suppose a level was driven from the 20-foot seam south by west, till it reached a point a few hundred feet south of the Record office, he will be a wise man who would say the level would go through barren ground all the way, and still be in it at the stopping point.

Henry Mitchell, probably the oldest among the county's leading citizens, is lying seriously ill at his home in Dominion. Last night but slight hopes were entertained for his recovery. He will be 90 on the 16th of this month. His son, F. J. Mitchell, is mayor of Dominion.

The foregoing from the Glace Bay Gazette refers to probably the oldest living mine manager in the province. On Friday, contrary to expectations, owing to his advanced age—90—Mr. Mitchell had rallied. Let us hope the end is not yet.

It is told that the Westville investigation was a very, very informal affair. In future investiga-

tions the government should see to it that the commissioners be crowned with steel-grey wigs, so that the wigs may—if the commissioners unadorned cannot—strike awe into the hearts of witnesses and listeners. The witnesses debated among themselves—and said things—just as though the commissioners were ordinary individuals; and then further the heavy-looking wigs might give additional weight to the commissioners' deliberations. One rabid politician said of the investigation that it was a solemn farce, while another retorted that it was possibly a farcical solemnity. This shows what a depraved thing political human, or human political nature is. The job of a commissioner is as thankless as that of a town council. The former, however, has a splatium which the latter has not.

A good example of repairing a large shaft by oxy-acetylene welding has just been accomplished by the Nova Scotia Steel and Coal Company, Limited, at Sydney Mines. The shaft in question was the main drum shaft of a large haulage engine at "Princess" Colliery, eleven feet over all, stepping down at each end in successive stages of one inch, from eight inches diameter at the journal to eleven inches at the middle. The break occurred about the center of the shaft. As that portion of the colliery that was served by the engine was put out of commission, it was decided to try welding rather than wait until a new shaft could be delivered. The actual time taken in making the weld was 16¾ hours. The shaft is now in operation under the same heavy duty as formerly, and appears to be giving every satisfaction. A saving of at least five days in colliery output was thus obtained against waiting until a new shaft could be delivered and installed.

Under the caption "Mining Industries Affected by the War" as a sub-heading the Industrial Advocate says: "The coal output fell off 600,000 tons as compared with 1914, while gold shows a large increase." The Advocate takes its cue from an article that appeared on the first of January or thereabout in the Morning Chronicle. That the Chronicle made a misstatement is not to be wondered at as it does not pose as an authority on mining matters except at rare intervals, but that a paper devoted professionally to mining should perpetuate the blunder is inexcusable. There was no decrease in coal output for 1915 as compared with 1914, but a fair increase. Had the Advocate read the article it appropriates from the Chronicle it would have possibly discovered that there was conflict between the headlines of the Chronicle, and what was contained in the body of the article. The value of increased coal shipments in 1915 over 1914 was three times that of the value of the total gold produced and about six times that of the value of increased gold production.

THE DRUMMOND MINE INQUIRY.

As the Mines Department's action in the matter of drawing pillars in the main slope of the Drummond Colliery will likely lead to much discussion at the coming meeting of the legislature, we make no excuse for occupying space giving the evidence of the chief witnesses. For this report of the evidence given we are indebted to the Evening News; James G. McKenzie, called and sworn. Worked

some years ago, as Surveyor for the Company. Never worked in 18 and 19 lifts. Mr. Graham said that Mr. Maxwell had outlined the proposed policy of the Company and asked the witness what he thought of it. Mr. McKenzie said it was worth looking into very carefully. He said been away for over a year and was not in touch with present day conditions. He felt satisfied that the estimate of five years as the life of No. 4 mine was correct. The slope pillars might be taken out in less time than ten years. As regards proposed new slope he thought there was a less expensive way of reaching the submerged coal. On being asked what he meant by that remark, Mr. McKenzie said he would like to know the area and extent of the coal acquired from the Aeadia. Mr. Graham then asked if unwatering the mine and putting the workings into shape would be a better way. Mr. McKenzie said he would not answer the question as he did not know how much area there was on the Aeadia side. Mr. Maxwell said 300 feet north of the Aeadia Slope and 400 feet below the bottom workings in the Aeadia Mine, or 750 feet below No. 12. The plan was referred to and discussed. Mr. McKenzie then said if the Government insisted upon the royalty being paid in full he did not think it could be profitably worked. The Government would have to give special help in royalty charges, or a substantial bonus. Mr. Graham then asked Mr. McKenzie assuming the government exempt the Company from royalty, and assuming the coal on the south side was all right, would it pay the Company to pump the water out. Mr. McKenzie was also told it was estimated the total quantity of water was 30,000,000 gallons and it was estimated the cost of pumping and rehabilitating the mine would be about \$100,000. Mr. McKenzie said he could not answer such a question without a good deal of consideration.

Tom Hale: called (previously sworn); Mr. Hale was asked if he had heard the policy outlined by Mr. Maxwell, and said he did not. Mr. Graham briefly reviewed Mr. Maxwell's suggestions. Mr. Hale said there was a fault between 13 and 14 which would cut down the coal from that lift materially. To draw slope pillars above the tunnel leading at No. 9 would be a menace to the second seam workings. On being asked if there were 10 years' work in extracting the slope pillars, Mr. Hale said he did not think so, but that there was more coal under the water than in the slope pillars. Mr. Hale was then asked how long it would take to extract the coal from 17 to 14. He replied it would depend upon the area available. Mr. Tonge here went into Mr. Maxwell's proposition and outlined it to Mr. Hale. Mr. Hale said nobody knew what the distance between the No. 1 and No. 2 seams was away to the deep. He had worked at the construction of the tunnel and their estimates of the length of the tunnel were astray because of a difference in the pitch of the seam. He thought the seams came close together to the deep. Mr. Hale said the real question was what was the quantity of coal proposed to be abandoned. He had estimated it at 1,250,000 tons. Mr. Hale did not approve of the idea of drifting from No. 2 mine to No. 1 mine to the deep, as proposed. He said the Government should make it a criminal offence to connect two seams together. He would like to see a slope from the surface for No. 2 mine and the present tunnel concreted up.

Mr. Graham asked if the scheme Mr. Maxwell outlined was a practical working scheme for the Comizale which could be successfully carried out. Mr. Hale said they could certainly draw the coal in and put a slope down for the second seam as far as there is coal to follow. Mr. Hale thought it would pay to take the water out for the sake of the coal to the deep. Mr. Graham then asked, "Is it a practical scheme to run the slope down?" to which Mr. Hale replied, "Yes, for the second seam." Is it a practical scheme for what is left below submerged? Mr. Hale said yes, to take the water out and work the coal. Mr. Hale said by the way of the Scott Pit it could not be done without a tunnel from the second seam to the main seam, and when that is done the water is still a menace. He said his best idea was to pump the water out and go on with extracting coal from the main seam as usual. Mr. Hale was then asked if that was impracticable what was the next best thing to do. He said to draw the slope pillars if considered impracticable. He was then asked if there was any other way to get at the coal in the Aecidia area and Main seam. He said there was no other way without the water being a menace. Mr. Donkin remarked that Mr. Maxwell had said when the water became a menace he would remove it by tapping it and taking it out from the No. 2 mine.

Mr. Lott asked if the main seam slope pillars were drawn and the water allowed to follow up the Scott pit underneath and take the water out by bore holes? Mr. Hale said it could be done, but the most practicable way was to take the water out now for the benefit of the district. Mr. Tonge said "You seem to think the better way is to unwater the part of the mine now submerged. That appeals to us all. How long do you think it would prolong the life of the mine if you unwatered it?" Mr. Hale said he thought about 20 years. Mr. Tonge then asked if the slopes and airways could be maintained for 20 years, the slopes now being 9,300 feet in length. Mr. Hale asked how far they could go with the present slope before they strike the Albion area, and went on to say that putting down a new slope was a more expensive proposition than taking out the water. Questioned regarding the second seam mine, Mr. Hale spoke very well of it. The proposed plan was again rehearsed to Mr. Hale and him. He said to the Company it was practical dollars and cents but from a conservation standpoint it was not practical. Mr. Graham then said the Company did not have the money with which to unwater the mine and put it into shape again. Would it be better to adopt the proposed scheme or allow the Company to go into bankruptcy? Mr. Hale said that they should be able to get the money. The property is valuable. Mr. Graham said the company stated they could not get the money. Would it be better to adopt the proposed scheme than to have the mine closed down? Mr. Hale:—One alternative is not provided and you don't know whether they can get the money or not. Mr. Hale said his candid opinion is they cannot reach the coal in the main seam as easily as by the present slopes. Mr. Graham said his question as to the two alternatives had not been answered. Mr. Hale said that nearly every dollar he had was invested in the town

but he would rather see them throw up the mine than draw the slope pillars, and leave the coal in the Aecidia below water. Mr. Graham asked if it would be better for the town and Mr. Hale replied, country. He would like to see the Drummond go ahead and do well. Mr. Hale suggested that the water be taken out of 19. If the workings were found in bad shape they could start new places in the solid except where they ran into the jigs when going through. Mr. Maxwell asked Mr. Hale if doing this work would increase operating costs, to which he replied that it would, but the cost of recovery should be spread over a term of years. An argument followed between Messrs. Hale and Maxwell regarding the quantity and quality of coal available on the south side. Mr. Graham submitted the Company's estimate of the cost of pumping out the water and renovating the workings. Mr. Hale pointed out that new pumps installed to handle the water could be utilized to reduce pumping costs in the future as compared with what they were before the fire. Mr. Hale thought it would be advisable to get the best possible pumping machinery and unwater the mine just as quickly as possible. On being asked if a pump could be got to throw more than 30,000 gallons per 24 hours he said he thought it could. He admitted, however, that there would be no object in taking the water out faster than the work of repairs could be done in following the water down. Mr. Hale spoke of the work which would likely have to be done, principally on the floor and roof, and other obstacles in the slopes. Mr. Hale said the level could still be driven 500 feet in the Aecidia area and leave a big pillar for the Aecidia water.

Mr. Lott asked if there would be a greater liability to spontaneous combustion after the mine was unwatered than before the fire. Mr. Hale said he did not think so. He did not think from what he knew of the Drummond Colliery they need apprehend trouble on that score.

Mr. Hale was asked by Mr. Maxwell if his suggestions to drive new levels if necessary did not imply a likelihood of excessive cost in opening up the old workings. Mr. Hale said not necessarily but could not say until it was tried out. Mr. Maxwell asked if there were likely to be heavy falls on the slopes, to which Mr. Hale replied that there might be and there might not.

Mr. Lott asked if the royalty was eliminated, if it would be a paying proposition. Mr. McKenzie said it might but the Company would not pay big dividends on it. Mr. Lott said the Government would have to do more than eliminate the royalty. Mr. McKenzie said that the Company could probably make ends meet if the royalty was eliminated, but he did not suppose the Company would be satisfied with that. The estimated quantity of coal multiplied by the royalty would about equal the cost of pumping, etc. The Company would then be in a position to make the same profits as formerly. Mr. McKenzie was asked if it was a reasonable thing that the Government should lose the royalty when by waiting ten years they would get the royalty and more coal in addition. Mr. McKenzie said it was his opinion that if the coal was not taken out by either of those slopes it would never be taken out. Mr. Tonge said everything depends on the future working of the Scott Pit seam, and asked

Mr. McKenzie if it was because he did not have confidence in the Scott Pit seam that led him to believe the submerged coal would not ultimately be got as proposed. Mr. Tonge said there seemed to be no good reason why the Company should hesitate to go after the coal when the second seam workings were deep enough. Mr. McKenzie asked if the Company was likely to be better off financially ten years hence than it is today. Mr. Tonge said coal was getting scarce and in his opinion—apart from the war—there should be better times ten years hence than now. The future of the Drummond was largely bound up in the Scott Pit seam. It could not be possible to keep a large colliery going with the comparatively small area represented by the unworked area to the deep of the Main Seam. Mr. McKenzie said in ten years' time there would be considerably more water to handle. Coal would have to be hauled from a greater depth. The tunnel would have to be driven at great depth, and the coal would have to be hauled as far as they haul it today, not so far one way, but from as great a depth. Mr. Maxwell said there was a big difference between being in the centre of the area and at one end of it. Mr. Tonge asked Mr. McKenzie as a surveyor and engineer if the coal need be lost to the Government or the community in view of the practical method of getting at it if conditions are such that the Company can carry on operations for ten years. Mr. McKenzie said he had good reasons for saying if the coal is not taken out of those two slopes it will never be taken up for the next 25 years.

James Floyd, called and sworn. Mr. Tonge explained the Company's scheme to Mr. Floyd, and Mr. Floyd was then asked if he had reason to believe that the water rising in the Acadia Mine would find its way into the Drummond Mine. Mr. Floyd said he thought it would, and gave some information which had come to him from another party to that effect.

Mr. Floyd was then asked if the Company was allowed to draw the slope pillars, maintaining an output of 800 tons per day for ten years what his general opinion of it was. Mr. Floyd said he did not feel disposed to answer that question with the information at his disposal. Mr. Tonge then reviewed the situation, pointing out the disadvantage of unwatering the mine, and the advantage accruing from the new slope, and discussed the quality of the second seam coal with Mr. Floyd.

Mr. Floyd suggested to Mr. Maxwell that it might be better to pump the water by way of the Acadia Mine instead of by the new slope, but Mr. Maxwell did not agree with him. Mr. Floyd also suggested the possibility of securing assistance in raising money and the advisability of appealing to the Local Government for assistance as an alternative suggestion to the proposed scheme for new slope, etc.

Messrs. James Henderson and Donald McNeil, Company officials, were sworn, and asked a few questions about the conditions of the slopes. Mr. Maxwell, General Manager, was recalled and his estimate of \$100,000 was checked up.

Mr. R. H. Gray was also called and sworn, not in his capacity as Deputy Inspector but simply as a practical mining man. He said in the course of his examination that the cost of the proposed new

tunnel would be about \$30,000.

This concluded the taking of evidence; next comes the decision of the Board. What it will be can readily be surmised.

NO MORE WHISKEY FOR GLASGOW?

In suggesting to the Liquor Control Board that the sale of whiskey should be entirely stopped in Glasgow and that the public-houses should resume their former hours for the sale of beer, non-intoxicants, and light refreshments, the Glasgow Licensing Authority is laying firm hands on a problem which few Scotsmen will deny is of special local importance. It may be left to sociologists to determine what are the conditions—racial, climatic, and historic—that have wedded the Scotch to the strongest liquors; it is very certain that beer and the blander forms of alcohol have never gained ground to mitigate its hold on the poorer people, and that the excessive consumption of it constitutes a special Scottish problem akin to that presented by vodka in Russia or absinthe in France. It is a problem that cannot be solved by adjustments of hours and regulations about treating. The Scotch public-house has never been so attractive as to lure the worker to spend his leisure in it and so increase his consumption. It is less comfortable, less humane, than its English equivalent; and is most often merely a counter across which drink can be bought. And recently, in spite of drastic time limits and treating rules, whiskey has been bought in large quantities and taken home. There is no doubt that the step proposed is the best solution. The point to be settled is whether it will command that amount of "general consent" without which even a Liquor Control Board can scarcely act. In that connection it is well to remember that when the movement for general prohibition in 1914—which failed so lamentably and so needlessly—was gaining strength, the most notable support came from working-people and employers on the Clyde. It had no propagandist temperance origin, and it showed that a wholesale measure could arouse an enthusiasm that would never be awakened by tinkering. If the Clyde takes the same view again, the rest of the country may well be encouraged to deal with its special problems in no less rigorous a spirit.

Describing his miraculous escape from death when so many other passengers on the Persia lost their lives, Lord Montagu, of Beaulieu, stated that the boat in which he was saved capsized six times before he and his companions were picked up. During the first night eight natives out of the nine persons in the boat died. When on Friday, about eight o'clock at night, the sufferers were picked up by the Ningchow, of the Blue Funnel Line, belonging to Messrs. Alfred Holt & Co., Lord Montagu had been thirty-two hours on the sea without food or water.

A band of recruits wearing blue uniforms and white helmets presented themselves at Whitehall after travelling from Hongkong, 12,000 miles, to enlist. They comprised 21 police officers, five wardens, five members of the Hongkong Royal Naval Dockyard Police, a sanitary inspector, and a railway guard.

(Continued from page 6.)

No timber or wood should be used near a ventilating furnace or a boiler plant. Wood for kindling should be stored some distance from the furnace.

The air space between the coal and the walls and arches should be kept free of obstructions, so that a man can easily pass through.

The ash pit should at all times be supplied with standing water, if it is available.

The water supply and some chemical fire extinguishers furnished by the operator should be kept ready for instant use.

Steam Pipes.

Hot steam pipes in contact with dry timber or coal in places where the air does not circulate freely may give off heat enough to aid spontaneous combustion of the wood or coal.

If underground steam pipes which are covered with magnesia, asbestos, or other noncombustible material, are damaged, the cover should be repaired immediately.

Where steam pipes are in use, the free circulation of air should not be interrupted.

Steam pipes should not be in contact with wood or coal, or be covered with waste material, such as scrap timber or fine coal.

Keep oil and greasy waste away from steam pipes.

Surface Fires.

Fires starting on the surface have often spread to the shaft or other surface opening and found their way into the mine. Therefore it is wise to pay attention to possible causes of fire near the shaft collar.

No open lights or oil should be kept in wooden structures which are within 50 feet of the entrance to any shaft.

Open fires for warming topmen should not be kindled in the head-frame of any shaft.

At mines where a side shaft or slope connects with the main shaft below the surface, and iron doors or lids are arranged at the top of the shaft, these doors should be promptly closed when a fire starts on the surface near the shaft, and the miners should be notified at once to leave the mine by a second opening.

Shaft Fires.

In case a fire starts in the shaft of any mine that has fireproof doors near the bottom of the shaft, these doors should be immediately closed, and the miners should be notified in order that they may escape to the surface through a second opening.

If there are water pipes with sprays at the top of a shaft in which a fire starts, the spray should not be turned on without regard to the direction of the ventilating current. At a downcast shaft the spray should be turned on as soon as possible after the alarm of fire is given. If the fire is in an upcast shaft, the sprays in the shaft should not be turned on full, as that may reverse the ventilation; turn them on enough to wet the shaft but not enough to reverse the air.

Miners should become familiar with the doors, fan housing, or other facilities in use for reversing the air current, and should know how to operate them properly in case there should be need of reversing the air in time of fire.

The reversing of the ventilating current in time of a mine fire is of gravest importance and should not be done without a full knowledge of the effect it may have on any persons who may be within the mine.

Miners should make it a practice frequently to leave the mine workings through the second opening and should become familiar with all escape ways. At some mines the miners are required to travel the escape ways at certain intervals in order that they may know at least two ways of getting out of the mine in case of a fire.

General Precautions.

Do not smoke underground.

Do not throw away oily lamp wicks underground. Do not oil ear journals underground, unless the oiling is done at a suitable place and proper precautions are taken against fire.

Avoid making wooden cabins for trappers, spraggers, and others, since these are often starting points for fires.

Do not test for the presence of explosive gas with an open light.

Do not set any burning lamp on the floor or coal and go away leaving it burning.

If a light is necessary as a signal, it should be hung from a timber or other support.

Place pumps in crosscuts or in such a position that they may be easily reached by going to the parallel through the nearest crosscut entry.

Water cans, when not in use for hauling water, should be kept filled and standing at places convenient for immediate use in case a fire starts.

In mines equipped with water lines, faucets, hydrants, and water plugs, the valves should be frequently opened and closed, to ascertain if a supply of water under pressure is present. The water pipe line should be protected to prevent its freezing in the winter. Hose with nozzle and connections should be kept at places convenient for emergency.

At mines having chemical fire extinguishers the miners should become familiar with the method of operation, charging, etc., and each miner should know where the extinguishers are kept.

If there are refuge chambers in a mine, the miners should frequently visit these chambers, so as to know where they are and what is the quickest way to reach them from the working places. Open lamps should not be used in refuge chambers.

Use of Breathing Apparatus.

A mine fire in its early stages may oftentimes be shut off, or water may be got to it quickly, or ventilating doors may be reached and placed in such positions as to change the direction of the air current, thus preventing smoke and gases from going into parts of the mine where the men are working. It may be that none of these things can be done because of the smoke and gases from the fire. If breathing apparatus are at hand, they should be put on by men trained in their use, and these men should do the work necessary to get control of the ventilation and the fire.

Signaling an Alarm of Fire.

In order that the men throughout different parts of the workings may be informed of a fire in time to escape, a large number of mines have some signaling equipment by which it is easy for workmen outside or in different parts of the mine to start an alarm which can be quickly given to all parts of

the mine. Fire-alarm equipment includes the following kinds of devices:

(1) A system of pipes to which whistles are attached at various stations. The whistles are blown by turning compressed air into the pipes.

(2) Electric gongs which can be made to ring by throwing in switches placed at different points throughout the mine. These switches are often placed within a box having a glass lid. The glass is broken when it is desired to close the switch.

(3) A system of electric wires, to which are attached in various parts of the mine lights with red globes, with switches arranged as described under (2).

(4) Telephones are also used, with stations at the surface, near the bottom of shafts, and at different places within the mine.

A code of signals is placed at each signal station to insure the right signal being given.

Each and every miner should become familiar with the system in use where he is working and should be able to use it in case of fire.

Extinguishers.

When you throw sand, salt, powdered limestone, or any other dry extinguisher on a fire, throw it hard. Dry materials, such as those named, act largely as a screen or blanket by absorbing the heat of the flame and cooling it, in much the same way as the wire gauze of a safety lamp cools flame. By throwing the material on forcibly the effect is in-

creased. The gases give off by some dry extinguishers do not burn, but take up some of the heat from the fire, become heated, and quickly move away, especially if a current of air is passing.

Use of Water Nozzles.

The important thing to do in throwing water on a mine fire is to throw it on so that it will be well distributed, rather than to throw on a large amount.

The space in which men have to work in fighting most mine fires is small and narrow, consequently one man has to handle the hose and nozzle. The force exerted on the nozzle by the jet of water makes the handling of the hose under a high pressure tiring work.

It is a mistake to assume that a large volume of water is needed to put out a mine fire at a face, thus requiring a nozzle with a large opening. Better and quicker results may be had by using nozzles of one-half or five-eighths inch opening, and the stream of water can be kept under better control. If the large nozzle does not discharge water with force enough to reach the fire, the nozzle may be made to throw farther by partly plugging the hole to reduce its size.

If the pressure in the water-supply pipe is regulated by a valve between the main line and the hose, and the pressure is indicated by a pressure gauge, the pressure upon the hose to which the nozzle is attached should be not less than 25 pounds nor more than 50 pounds per square inch.

(Continued next issue)

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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 2569 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 sub-divisions 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 45 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.—83675.

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Concerning the 'Record'

The first Number of the 'Trades Journal' was issued the first Wednesday of 1880. The 'Journal', while taking a deep interest in the Coal Trade, was more particularly interested in matters affecting the welfare of those employed in the coal mines of the Province. Its aim was to secure for these better working conditions, and to give them the standing in the community to which, it thought, they were entitled. That much good was accomplished along these and kindred lines is acknowledged by all able to make comparison between conditions as they existed in 1880 and as they exist now.

In 1868 the name was changed to the **Maritime Mining Record**, in order to express more distinctly the place it was intended to occupy. Since then, till now, its pages have been devoted chiefly to coal mining, which is the staple industry in Nova Scotia. With the growth of the trade it has grown in influence, and is now considered the one reliable authority on all matters connected with the coal trade.

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

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