

MARITIME MINING RECORD

Dr. R. Bell
Geol. survey dept.

COAL AND METAL TRADES JOURNAL

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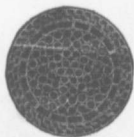
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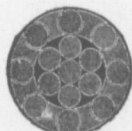
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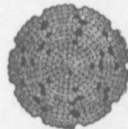
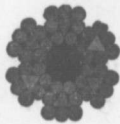
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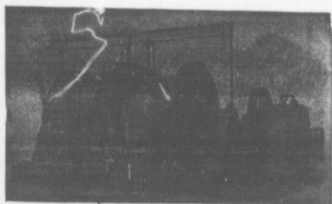
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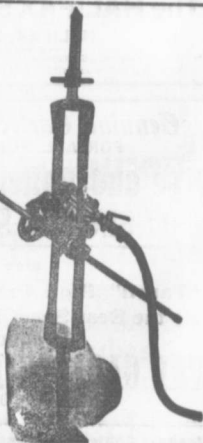
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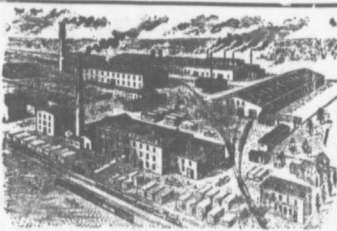
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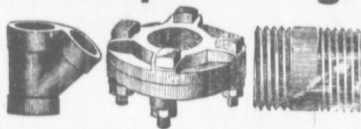
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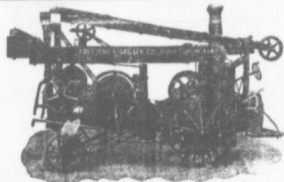
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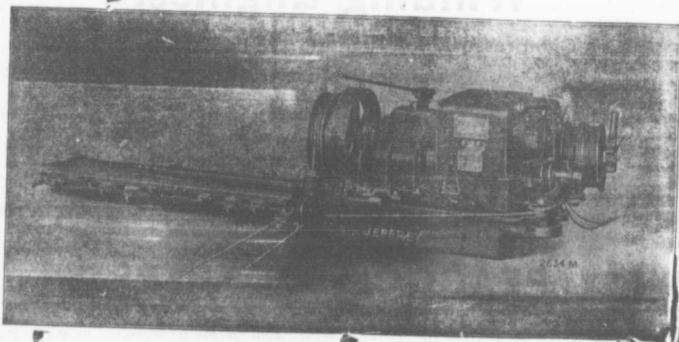
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To No....

MARITIME MINING RECORD

Vol. 11, No. 16. Stellarton, N. S., Feb. 24th. 1908. New Series

SELECTED QUESTIONS AND ANSWERS.

(Science and Art of Mining.)

BOILERS.

Q.—The water in a steam boiler is dangerously low. What precautions would you adopt?

A.—The first thing the attendant in charge of a steam boiler should learn is the necessity of keeping a sufficient supply of water in the boiler. Upon taking charge he tests the supply of water in the boiler by means of the gauge-cocks, which are so situated on the boiler that the upper gauge-cock, when opened, should have steam issuing from it, the middle cock both steam and water, and the lower gauge-cock water only.

Now, as the question says the water is dangerously low, we will concentrate our attention upon the lower gauge cock, and if on testing we find that this cock, instead of showing water shows steam, it is a sure indication that the boiler has too little water in it, and we must take immediate steps to remedy the evil.

The precautions necessary are as follows:

Do not start the feed pump to inject more water; it may crack the boiler.

Do not stop or start the engine until the boiler has been cooled.

Do not lift the safety valve until the fires have been drawn and the boiler cooled.

Do not draw the fire first thing, because the operation creates an increase of heat that would lead to disastrous consequences in the present dangerous condition of the boiler.

The first precaution to adopt is to close the draught and bank the fire with ashes. (A better substitute would be damp earth if any were at hand). The object of this is to cool the boiler and decrease the steam pressure. After awhile if the boiler has cooled and the fire been made "dead", the fire may be withdrawn if the operation can be performed without increasing the heat. If not, it were better to smother it.

The attendant must leave the safety valves as he finds them, because, if he opens them, (or any other valve) with the mistaken object of decreasing the steam pressure, just as much steam as escapes will again be generated and add additional dangers by further decreasing the supply of water that remains in the boiler.

It would be unwise to start the engine for the same reason, but if the engine is running when the evil is discovered and suddenly stopped the recoil of the steam would form a very serious danger, therefore it were better to keep the engine running until the danger was somewhat alleviated. This sudden retrocession of steam gives rise to an enormous force, and must be guarded against at all times. It is a great danger to start the feed pump, as the water being dangerously low, the plates are overheated, and would become brittle and li-

able to snap if cooled suddenly in water. When iron is overheated it becomes speedily oxidized, and its tenacity and cohesive force is much reduced.

When these precautions have been observed, the boiler cooled, the fire damped or drawn, and all immediate danger removed, water may be run into the boiler and the fire started up.

The fire should not be started until there is sufficient water in the boiler, and no risk of breaking or blistering the boiler run, as would be the case with an uncertain quantity of water and a hot fire. There is great danger in getting up steam to fill a boiler whose water is low. After a boiler that is clothed with masonry has been entirely blown off it should not be refilled under 24 hours, as it will not have cooled off thoroughly before that time.

Few people realize the waste power that exists stored up in an ordinary steam boiler. Just because there is no movement about it, one is apt to think that there is no power there. Under the condition mentioned in the question, it is necessary to remember one point in particular, and that is, the very things one would naturally think ought to be done are the very things one must on no account do. We must not open the safety valve, nor turn cold water into it, nor yet rake out the fires. We must not interfere with the engines in any way. No better agent than dry sand can probably be made use of for extinguishing the fires, and a supply should always be kept adjacent to the boiler-house. To prevent the water from getting low, automatic appliances should be fitted to every boiler, but, of course, this does not come within the requirements of the question.

FALLS IN MINES.

Q.—Falls of ground are unnecessarily frequent. You are asked to describe what you consider the best method of preventing falls of roof, coal, and side in a mine.

A.—It may be as well to state here the chief reasons why the falls from roof, etc. are so frequent.

1—Falls of apparently good roof, generally arising from unseen slips.

2—The careless manner in which the timber is set, and neglect on the part of the men.

3—Disregard of the rules by the officials.

Some of those that come under the first heading are liable to occur at any time, even when the timbering is carried out in the most systematic way.

A great many of those that occur under the second heading are due to the careless and willful disregard of the rules in order to earn a little more money, or because work will be impeded by carrying out the same.

Those that occur under the third heading are the more regrettable because they are occasioned by the neglect of those who should set a better example in re-

gard to the carrying out of the rules, and it is known that some officials go so far as to knock timber out, or order the same to be done, giving as their reason that the timbering was superfluous, instead of to keep down expenses.

The best means that I consider would tend to decrease the number of falls are:—The method of timbering must correspond to the character of rock present, and must be fixed by the manager in instructions to the men, stating particularly the limits of distance between bars, props, etc.; and that this limit must be further increased if necessary, but on no account must the maximum distance be exceeded.

Every prop should be set firmly into the bottom, and have a good sized cap to cover a fair area of the roof. Provisional timbering should be supplemented as soon as possible, the roof and walls being supported until this is done. Good props should be built, and kept well up to the face, and all back-timber withdrawn, because when this is done it keeps the roof at the face good.

Roads should be specially protected in passing through disturbed rock, as also at cross-roads, and the lower corners of pillars. All timbering should be set at the proper angle of slope relative to the dip of the strata, and be properly recessed into the rock. Large cavities in the roof ought to be filled up, and shut off by proper timbering of sufficient stoutness.

Close-set rows of timber (organ pipes) and are excellent protection against the fall of sides, and are indispensable in working thick seams.

In steep seams the working places should be protected against falls of coal and stone by wooden screens, and similar screens should be put up at the lower corners of pillars when the dip exceeds 30 degrees.

Sufficient timber should be supplied and delivered as near as possible to the working face, and I would also have men to put up the timber who were not paid according to the amount of work done, or whose earnings depended on the amount of mineral sent out. I would restrict blasting to a minimum, and have shots fired in regular order, and postpone clearing away until the fumes have dissipated. Hewers should see that the working place is safe before beginning to get coal, and also at frequent intervals, especially after any pause in the work, and over-hanging and under-cut should be propped or spragged.

The districts allotted to officials should not be too large, thereby enabling proper supervision to be maintained. Some officials have to cover districts so large that they cannot possibly give the necessary attention to the main roads leading to the district or districts.

The officials should warn the men of any special danger at the face before work commences, and instruct them properly in remedying the same. Some falls are also caused by the tubs coming in contact with props, and forcing them out and bringing down the roof, and in these cases I would recommend the use of steel bars, or some other strong form of timbering. I would have the timbering done by a staff of men kept just for that purpose, and I would prosecute anyone who interfered with the timber set by these men.

FIRST AID.

Q—A man receives a severe electric shock rendering him insensible. What means would you adopt to revive him?

A.—Before describing the method of treatment I will briefly explain what an electric shock is. An electric shock is the result of instantaneous contact of the

body with two conductors at different potentials. The effect of the shock depends upon the strength of the current passing through the body, and the period of time for which it is maintained; the physical conditions and peculiarities of the patient are also determining factors upon which the severity of the shock depends. A shock from a high potential is much more dangerous than a shock from a low potential, because it tends to cause a greater flow of current through the body; but other conditions, such as the extent of contact, moisture of skin and clothing, may enter into the result, and make a low potential shock produce a greater flow of current than a high potential shock under different conditions, and therefore become more dangerous.

The physiological effects of shock are, broadly, as follows:—Contraction and stiffening of the muscles; stoppage or weakening of the lungs; stoppage or weakening of the action of the heart. The effect on the contraction of the muscles is that on grasping a live part it may be impossible to let go, and a shock which instantly taken would not be serious, may prove fatal. A good habit to get into is to lightly touch any part of any electrical apparatus (with the back of the hand) to see if it is alive before grasping it. A habit like this would probably be the means of saving life, or preventing severe shocks.

A person who has received a severe shock may exhibit the following symptoms:—Unconsciousness, cessation of breathing, cessation of the heart's action, turning blue or green in the face. These symptoms do not necessarily indicate death, and death should never be assumed to have taken place, but remedial measures should be persevered with until a medical man has pronounced life extinct. Mr. F. B. Aspinall, in a paper to the Institute of Electrical Engineers (Vol. XXXI page 761) quotes the following case of electric shock:—B—received a 2000 volt shock from hand to hand, but was not badly burnt. He was insensible; he could not feel his heart beating, and his breath did not cloud a mirror; his eyes were turned up so that he could not see the whites of his eyes, his jaw dropped, and thus I saw the man I could have been certain that he was dead After forty five minutes' artificial respiration this man recovered.

From the above case we can conclude that in the earlier days of electricity as we know it many people may have been given up for dead after receiving an electric shock, when they may have been restored by the use or application of artificial respiration immediately after the shock.

If a person seizes hold of any part of an electrical apparatus whilst the current is on, the best way to release him if the connection is with his hands is to get hold of his coat sleeves and pull his hands away, without causing dry clothing is a good insulator; do not lay hold of the bare flesh, or any damp or wet clothing; if the man's clothing be damp or wet get some dry material and push him off out of circuit with your shoulder and be prepared to catch him as he is falling to prevent further injury. It is far better to break a man off the circuit than to cut off the flow of the current, because many of the serious accidents from shock have been due not to the normal voltage of the system, but to the high pressures which are set up on suddenly breaking the circuit.

The best means to adopt to revive the patient is Dr. Silvester's method, as follows:—

Place the patient on his back, with a small firm cushion or rolled up article of clothing under his shoulder blades; kneel at the patient's head, and grasp his arms just below the elbows; draw them gently and with a sweeping motion above the head, and cross them; keep them in this position for about two seconds, then carry the arms down to the sides of the chest, and press firmly for two seconds. Repeat these movements slowly and steadily about fifteen times a minute till breathing commences or till a medical man pronounces life to be extinct. As soon as breathing has commenced promote the circulation by rubbing the limbs with a firm upward movement (only), using warm flannel or cloths if obtainable, to prevent irritation of the skin by using the bare hand. Before his operation is commenced all clothing should be removed from the patient's chest, and all other clothing loosened to allow the muscles of the body to have a free action for expansion.

When a man receives an electric shock a medical man should immediately be summoned, and the above operation continued until breathing is restored, or otherwise ordered by the medical man upon his arrival.

Dr. Lewis Jones, in a discussion at the Institute of Electrical Engineers, in addition to artificial respiration, recommended the elevation of the lower limbs and trunk, the rhythmic traction of the tongue which has lately been advocated, and a smart tap over the region of the heart, repeated a few times in the course of the first half minute.

The elevation of the trunk and legs is to send the blood to the brain as a remedy for syncope, which may be a result of the shock. A blow over the heart may start it act again if it has stopped beating. The drawing in and out of the tongue is in itself a form of artificial respiration.

EXPLOSIONS AND EXPLOSIONS.

Who can tell the countless explosions that, in legal phraseology, have been ascribed to 'the act of God', that have really been due to the act of man? A few days ago a Londoner was sentenced to a month's hard labor and fined for smoking in the fiery part of a large colliery in the Rhondda Valley, and for having in his possession a box of matches, tobacco, and a bottle containing whisky—all in defiance of the rules and regulations for the safe working of collieries. There were seven hundred men working in the colliery at the time, and their lives were imperilled. One of the men smelt tobacco smoke and traced it to this miner, whose hot pipe he found lying beside him. Had there been an explosion, the cause of it would have been unknown. Very few of the 700 men, if any, would have escaped. It would have been attributed to atmospheric influences. People, more learned than the rest, would have ascribed it to volcanic upheaval, having some remote connection with the Messina disaster, and a hot controversy would have raged, while the actual cause of the catastrophe, the lighting of a match or matches, and the smoking in the mine, would have remained unknown. The magistrate might well remark, in sentencing the prisoner, that the case was most serious. We wish, says the Mining Journal, all colliers would act as the one did who traced the peril in which his 700 companions were put by the criminal folly of the lone man. It seems to us that the King's medal might

well be bestowed upon the collier who brought the Londoner to justice, for is it not better a hundred times to prevent a disaster than to form relief funds for the families of the slain after it has taken place? The colliers themselves cannot be held guiltless of negligence. After explosions there have been found the tell tale matches and the tell tale pipes, as our Government Inspector of Mines can testify. Some of the explosions that appear to be unexplainable, are often due to causes about which the inspectors of mines have a suspicion that they dare not urge, at the inevitable inquest, for not in every case is the absolute evidence at their command. When, for instance, a man sees fit to thaw frozen gelatine in a frying pan, there is, as Prof. Louis recently remarked, nothing accidental about the resulting explosion, except it be the fact that a man so ignorant, or so reckless, should have been entrusted with such an explosive at all.—S and A. of Mining.

THE U. M. W. CAMPAIGN.

Says the Glace Bay Gazette of the 18th. inst.—

On Monday evening a delegation of the P. W. A. saw Peter Patterson, organizer of the United Mine Workers, and served on him a formal declaration of war. Mr. Patterson was told of what he was probably well aware, that the P. W. A. was by no means knocked out, but on the contrary it is flourishing more actively and energetically than ever; that the membership is being largely increased every week; and that the efforts of Mr. Patterson and his supporters to establish the U. M. W. in Cape Breton would be fought by the P. W. A. at every stage.

Doing this was more or less a formality, of course, since it was not expected to scare Mr. Patterson from the field. It has, however, put Mr. Patterson and his propaganda squarely before the public. He and the U. M. W. cannot deny that they are engaged in an endeavor by one labor union to disrupt and disorganize another. This is not a fight for organized labor. It is not a fight to organize this territory. It is simply an underhand attempt by a foreign and interloping organization, for their own aggrandizement and selfish ends, to supplant a native organization which has given abundant proof that it still maintains the vital spark of life and is capable and destined to accomplish much further good for the miners of this province.

This feature of this matter is carefully concealed by U. M. W. officials. In his annual address, Pres. Lewis said that the miners of Nova Scotia were being organized and there was every prospect of a large district, comprising several thousand miners here being added to his organization. He did not say that the miners of Nova Scotia were organized nearly ten years before the U. M. W. began its existence. The United Mine Workers' journal said that Mr. Patterson's campaign was meeting with much opposition from the Dominion Coal Co., but it did not say that his principal opposition was from the P. W. A., an order organization and one incomparably better for the miners of this province, the members and officers of which quite properly resent the unwarranted invasion of this field by the U. M. W., especially while there are thousands of miners in the United States unorganized.

MARITIME MINING RECORD.

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STELLARTON, N. S.

FEB. 24

THE STEEL—COAL CASE.

There are about as many opinions given as to the real intent of the Steel—Coal suit as there are cures for rheumatism.

Beginning at the top notch Judge Longley says the decision is his with the scintilla of a difference that he held the contract was in force, and to be carried out, while "mi lords" say the contract was broken and can not be put together by a sailmakers needle.

The Star says that "Judge Longley says that he recommended specific performance of the contract because it would operate less seriously on the Coal company."

Those who were present at the trial in Sydney, including the financial editor of the Star, were soon convinced that the evidence did not worry the learned Judge; he spent himself puzzling over the manner in which the bomb should be thrown without blowing the Coal company into kindling wood.

The Star says that many people are asking if the decision of the Lords is more drastic than that of the N. S. courts, and adds that the majority of the people say it is. Well, that is all a matter of opinion. The supreme court decision was, "You — to the Coal company—'give the Steel company coal for 90 years, suitable for the latter's purposes from the Phelan seam at \$1.24—subject to the stated readjustments—and no fuss about it, if you please." The decision of the Lords is, "No court of equity would call for a specific performance of the contract. The contract is broken; damages for the plaintiffs. Next!" The answer to the Stars enquiring friends is "Whether it is easier to say to the Coal company 'go perform an impossibility' or to say 'table down the dust,' and they all answer the former is much the more drastic.

By the decision in the Steel—Coal case, Mr. Plummer on the one hand, got just what he wanted, though perhaps not quite in the way he wanted it. Mr. Plummer wanted damages and he has got them, or rather, he is to get them, at some time in the future. Mr. Ross, so all the people say, yearned to have the contract broken and the Privy Council says, "There you are, we declare it broken." Mr. Ross has got his desire—but the privy council declares he must pay for the breakage. Of course Mr. Ross didn't want it broken in that way; he would have preferred that their lordships had declared the breakage didn't carry damages.

One long headed newspaper man says that the

Steel Company have got the latest decision, thereby leading one to the belief that the lords decision—contrary to use and wont—is not the last. We rather agree with him. If the Steel company do not give ample token that they will be amenable to reason, it is possible that the companies after all are only at the beginning of litigation.

The awful number of millions the Coal company will have to pay the Steel company appeals ex-Judge Nesbitt, who, since the suit began in Sydney, has been Judge Longleys alter ego. He says that it will be seventeen millions at the very least, while the way he figures it out makes it come nearer seventy millions. His ex-Honor however is not the only one who can do a little figuring. The privy councils judgement is that the Coal company pay for past misdeeds, that is, for the short supply, for the loss entailed by stoppage, and for the extra price paid for coal. A generous calculation places this figure at \$3,000,000. Then damages is to be awarded for the loss the company in the future may sustain from the breaking of the contract, that is, in having to pay more for its coal. I suppose it is right to say if no likely future loss can be proven no damages will be awarded. That, at least, appeals to common sense. Were the contract still in force there would, as called for by the contract, be a readjustment of prices next June. Owing to increased rates, and cost of supplies, the arbitrators would likely place the increased cost of production at sixteen cents a ton. This added to the \$1.24 would make the price, from June next, for a term of years, \$1.40 per ton. Mr. Ross can say to the Steel company: "I will give you coal for three years for \$1.40 a ton. During these three years you can open out the coal areas you bonded. After that I will charge you a price to leave a fair profit. If Mr. Ross makes this offer then the Steel company can get no prospective damages. Why? Because if they open up the areas they have bonded, and work them energetically, the Steel company will not be losers but gainers, from the breaking of the contract. How can it be established, to the satisfaction of the assessor, that the Steel company could produce coal, not at less than one forty, but at less than one twenty-four. That would be easy. The Dominion Coal Co'y. could call to testify on its behalf, and in favor of the statement as to cost of coal, three gentlemen, the most notable in the province in their particular lines. First there is Milner of the F. C. L., who has asserted that it is a shame that coal costing a 'little' over a dollar to produce should be sold in Halifax at over four dol. rs. Then Dr. Kendall, M. P. P. would be called, and would testify to the fact that in the press, in parliament and to the people, he has made the statement that coal could be sold at a dollar a ton and leave a profit. Just as Mr. F. D. Jones, General Manager of the Dom. Iron & Steel Co. was the star witness at the first trial, so he would be star witness on the adjudication of damages.

Ex. by Mr. L. "Are you General Manager of the Dominion Iron & Steel Co."

"I am."

"Are you familiar with the methods of production of coal?"

"Thoroughly. During a portion of the year 1906 I devoted time to the study of the same."

"Did you state in 1906 that coal could be produced at a dollar a ton?"

"I am not sure whether I said it could be produced, or sold, at a dollar a ton, one or the other."

"If a superintendent of a mine had said to you in 1906 that coal not could be produced at a dollar what would you have said to him?"

"I would have said he l— he was'nt up in scientific mining."

"And you are still, of course, of the opinion that coal can be produced, or perhaps even sold, at a dollar?"

Ex J. N. "I object, your honor, to leading questions being put to the witness at this stage. The learned Counsel for coal is going beyond the bounds of courtly procedure."

Mr. L. Well then, I will put it—"Are you still of opinion that coal can be produced at a dollar?" No answer.

Mr. L. "Your honor, make the witness answer" His honor "Indeed I will not. He has already compromised the case of the Steel company badly enough by his admissions."

Ex. J. N. "Mr. Jones, when you made the assertion as to dollar coal, you were not a coal producer."

"No, I was a buyer."

"There is a decided difference, is there?"

"There is all the difference in the world. A buyer can do wonderful things."

The Assessor in giving his decision said:

"The evidence of Milner and Kendall does not amount to a row of beans, but the evidence of Mr. Jones, I am sorry to say, seem to be conclusive against prospective damages for the Steel company." "Everybody believes Jones, and I am forced to bow to public opinion." I assess the damages at a dollar."

An item appeared in last issue of the RECORD which we are pleased to say was incorrect. The item referred to said that the Strathcona mine was in the hands of a receiver, and that the government had charge of the pumps. Mr. F. A. McCully of Moncton, one of the officials of the company, writes to say that the company is not in the hands of a receiver, is paying to the government the wages of the men at the pumps, has never been served with any process, and is sound financially. The mine is being kept dry by the government to save the property, as the U. M. W. refused to allow the pumpsmen, etc. to remain at work. The RECORD was decidedly wrong in jumping to the conclusion that because the government was manning the pumps the mine was in the hands of a receiver and yet it has this to say in excuse. In 1907 when the Springhill mines were on strike, and when all the pumpmen and firemen were called out the company begged and prayed the government to take charge of the pumping and charge the cost to the company. Neither for love nor for money would the government comply with the request. When the Mabou mine went into the hands of a receiver the government at once took charge of pumping operations. The RECORD therefore came to the conclusion when the government would not do the pumping where so much was at stake as in Springhill, and did it at Mabou, a small mine, that the policy of

the government was not to assist unless the mine was in the hands of a receiver. The RECORD is right glad to hear that the government has changed its policy in regard to keeping the mine free from water in event of a strike as evidenced in its assistance in the case of the Strathcona mine. The RECORD is no yellow journal and takes no delight in recording failures, and therefore it is pleased to be told that the Strathcona Coal Co'y. is financially sound.

The increased imports of coal into the province of Quebec 1908 over 1906 were 1,068,526 tons. Of this increase the United States contributed some 700,948 tons, and Nova Scotia the comparatively small quantity of 306,000 tons, considerably less than half of the increase contributed by the U. S. Here are some more figures which show at a glance how the Americans are encroaching on the best market of Nova Scotia:

In 1906 the U. S. supplied the Quebec market with 674,000 tons of coal and Nova Scotia supplied 1,730,000. That year the Americans had 28 per cent of the trade.

In 1907 the United States supplied 939,000 tons against 1,709,592 supplied by Nova Scotia, bringing up the American percentage of the total to 35.5 per cent.

In 1908 the U. S. supplied Quebec with 1,435,940 tons, against 2,047,638 supplied by Nova Scotia. This again raises the American percentage to over 41 per cent.

If they go on increasing the supply at this rate in two years the Americans will have half of the Quebec market. By some means, by hook or by crook, this sort of business must be stopped.

Says the Coal Trade Journal, an authority on United States coal matters: "Our discharging docks all the way along from Bridgeport, Conn., to Portland, Maine, are more or less full of coal especially along the Sound and very low prices are being made to get rid of it". And this is the market to which Mr. Milner of the F. C. L. asks the mine operators of Nova Scotia to cater. Mr. Milner says reciprocity would give us so big a market in the New England States that there would be no idle time in winter at the C. B. collieries. If the discharging ports, the ports accessible to Nova Scotia are full of American coal, waiting the pleasure of buyers, it does not strike one that there would be either profit or pleasure in sending Nova Scotia coal in these directions.

Mr. Beausoil, a representative of the U. M. W. from headquarters, told a meeting at Dom, No. 6—so says the Glace Bay Gazette—that there were a number of miners in Cape Breton, who if they got turkey and pie would never work. Mr. Beausoil struck up an acquaintance with some of the C. B. miners in a remarkably short space of time. Though it was a random shot it may have hit the mark. Why the very reason that so many are joining the U. M. W. is that they have been assured that if they join the U. M. W. all the good things of life will be theirs and of course turkey and pie.

Around the Collieries.

As there is little news going at the collieries at present, except what refers to the P. W. A. and the U. M. W., and as the editor will be absent from his office for a time, this and possibly the next issue of the RECORD will contain a couple of pages less than the stated number.

That the coal trade is a little slack is evident from the fact that the Dominion Coal Co.'s shipments have not been so low in any January for the past eight years, while Scotias shipments are less than in any January in the last four years. However the outputs are good and will come in handy during the busy shipping season.

The papers say that James Ross and his friends, after the privy Council decision was made known, instead of throwing steel on the market laid hold on every share they could catch until now his and his friends' holdings are numerous enough to control the Steel Co. The papers don't tell us whether he brought outright or on margin. If the former, where did all the money come from?

At the opening of the last parliament the government majority was 66. At the first vote of the present parliament the government majority was 42. As Russel of East Toronto, shows signs of voting tory the actual liberal majority with the speaker is 47 and not 49 as was given out before the vote. The majority is sufficiently large for all practical purposes.

During January nearly four thousand tons of bituminous dust and over fourteen thousand tons of American bituminous coal found its way into Quebec province, the principal receiver being Montreal. There were also 33,311 tons of Anthracite received. Just how much of this was dust is not known, therefore the actual displacement of Nova Scotia coal in the Montreal market by American, cannot correctly be given.

The fact that Premier Murray, and Deputy Commissioner of Mines Dunkin, accompanied the delegation of coal operators who intercepted Mr. Fielding on his way to Ottawa, bodes well for the success of their mission, Premier Murray cannot take any chances in the matter. It is absolutely necessary that the revenue of the province be not interfered with by any inroad of American operators in the St. Lawrence market.

It is a remarkable showing which is made in regard to the membership of the U. M. W. in the Anthracite region. Consider for a moment the value of an organization, for purposes of offense or defense, where but 18 per cent of the employees are members. Put it in figures—30,000 out of 170,000. Probably grins will be made before April 1, but there is a long way to go, to say the least, to bring up an organization to the fighting point from such a basis as that. Granting the most favorable outcome of efforts to increase the membership at the advent of a strike, how will the Bituminous districts feel disposed toward a district that has been so poorly represented in the ranks of the national body? Will the Bituminous miners feel disposed to extend much help to a branch of their association which has maintained itself on a basis of 18 per cent. of possible membership, and consequently paid only 18 per cent. of its proportionate dues during the past two or three years?

For years the mineral resources of the province have been crying out loudly to be developed. The cry on the whole has failed to arouse general attention.

Mr. Beausoleil the representative of the U. M. W. who is starting C. B. in company with Peter Patterson is not what one could call consistent in his speeches. He tells one audience that the U. M. W. won't stay here if they are not wanted, and to a second audience he shouts, "The U. M. W. are here to stay."

There is some education necessary at a number of the bituminous mines in the Pittsburgh Pa. district. There has been strife for a considerable time over an order of the mine officials to discontinue the use of black powder. The men at these mines are seemingly content to take the risk—foolish fellows.

The Montreal Witness says the Nova Scotia Steel & Coal Co. will ship enormous quantities of coal this year, and that they will extend their St. Lawrence trade. Well, the company will ship more coal this year than ever it did, but it is just possible the increase in shipments will not permit of the word 'enormous.' If the company ship a total of three quarters of a million tons it will be doing pretty well. That would be a hundred thousand tons more than last year.

The C. B. papers say the U. M. W. or some of the members of that affen society will apply for a Board of Conciliation on the ground that they are being unfairly treated. They may save themselves the bother. The Lemieux Act speaks of only two classes of workmen, union and non union. It makes no reference whatever to 'scab' unionists and very properly so. If a company were forced to recognize two unions who not half a dozen, and where would they find themselves then.

Three U. M. W. officials, Beausoleil, Patterson, and McLellan, called on Mr. Duggan, Gen'l Manager of the Dominion Coal Co., expecting to be invited to a five o'clock tea. They sent in their cards. These were returned with the information that this was not one of Duggan's receiving days. They expostulated and said they wished to talk on important business. They were then further informed that Mr. Duggan did not wish to talk with them on business, important or otherwise. The gall of Peter.

An Englishman, writing in the Herald, tells how good the unions are in the Old Country, compared with here. He evidently does not know that the miners of Nova Scotia had much beneficial legislation ahead of Britain or any other country. He thinks it is not a new thing to have dues collected in the office of the company. Why, it is the very newest. He says collectors do that work in Yorkshire, but he does not say what percentage the collectors get.

Only a small proportion of the Anthracite mine workers are in the union. According to the figures of Mr. Lewis, only 18 per cent. of the total 170,000 Anthracite employees were included in the union at the close of 1908. "Why?" ask the operators, "should we make a contract, covering the wages of all our 170,000 employees, with a national organization that includes such a small percentage of these employes?"

The Anthracite operators will not make an agreement with the United Mine Workers of America because of their contention that the union's membership is made up principally from the Bituminous fields. At the convention in Indianapolis, the president of the union gave figures showing the numerical strength of his organization. The total membership was 295,000—this was for the close of 1908—and of this number only 31,000 were Anthracite workers.

So like the Socialists.—In the Free Lance's Springfield items appears the following:

"We have a new Mayor and one new Councilor. The Socialists received their quietus as was predicted by those who took the trouble to think over the matter. The one man elected and who proclaimed himself an adherent of that body has destroyed his chance of re-election at any future day.

"It is singular that this coterie of socialists never took any part in any effort for the betterment of the town,—social, educational or sanitary. These men who prate so much now about benefits to their fellows held aloof from the Y. M. C. A. They threw cold water on every suggestion for entertainment, or moral reform of our boys. They sneered at any suggestion of town improvement. They opposed the plans for beautifying the monument grounds. They opposed every attempt to improve our miners educational system. In fact where they had to put their hands in their own pockets instead of getting them into somebody else's, they simply looked coldly on. Their stock in trade is whine, and their chief characteristic, impudence and ignorance."

The Hon. Mr. Daniels, of the local government, was over in Scotland a short time ago. Asked by a Scots-woman what he thought of her native land, Mr. Daniels did not go into raptures over the greatness of Glasgow, the grandness of Edinburgh or the beauty of Loch Lomond and the Trossachs. The thing that captivated and enthralled Mr. Daniels was the air of Scotland. On this he expatiated. It sent the blood tingling in his veins and made his step light and elastic. Walking could not tire him. The curious thing is that so few travellers refer to this fact. They speak of the dull days and the many rainy ones and overlook the balminess or whatever it is, of the air. Confirmatory of Mr. Daniels' opinion I quote the following from a late article by "Tay Pay" (O'Connor) in P. T. O.

"There is another phenomenon in connection with the climate of Scotland and especially of Glasgow, that I must refer to. I am very susceptible to climatic influences. A few hours in some towns—and towns that are beautiful and that I love—are quite sufficient to upset my whole system and drag me down to a fit of deep physical prostration. On the other hand, there are places where I begin to feel vigorous and cheerful almost from the first moment I enter into them. There is something exhilarating in the air which permeates through my whole being. Glasgow belongs to the latter category. Last week-end was an exceptionally severe specimen of the bad weather that Scotland can supply in such a

abundance. We had rain and sleet, snow, and something like cyclonic violence of tempest. One day the wind blew with such violence in the streets of Glasgow that I actually saw a horse blown twice to the ground. And yet throughout all this devastating time I felt quite happy and cheerful; the infectious invigoration of the keen Glasgow air made me indifferent to the weather."

THE COAL SUPPLY.

Considerable interest has been taken in scientific and commercial quarters in the speech delivered by Sir William Ramsay at the Mansion House meeting in connection with the British Science Guild, in which he dealt with the future of the coal supply of England. Interviewed on the subject at University College, Sir William Ramsay said the report of the Royal Commission showed that the coal supply would not last more than from 500 to 800 years. The chief sources of energy at the present moment were coal, oil, wood and water. Long before the coal supply became exhausted there would be a diminished production with higher prices. "So that we may expect" he continues "that within not more than 200 years or even less, the high prices of coal will render the conditions of living very difficult. The oilfields are rapidly becoming exhausted, and the whole of the available water power in Europe is estimated not to exceed two million horse-power, and it is probable that in England alone 100 million horse power is being expended at the present day. Although, however, a source of energy such as water is not to be despised, it only forms a very small fraction of the energy available. The use of tides has been suggested, but the capital cost of any installation of machinery capable of extracting power from the tides and the danger of destruction by storms renders the idea of obtaining power from the tides a chimerical one. In hot countries engines have been worked by solar heat, but even grating that such a process can be applied in England—where sunshine is, unfortunately, only too rare—the cost of apparatus necessary, and again, the danger of destruction by storms, place that source of energy practically out of the question. There are only two other possible alternatives, one is to obtain a supply of heat in the form of steam by drilling a hole in the earth's crust at least ten miles deep. Such a project has been considered from a practical point of view by the Hon. Mr. Parsons, of turbine fame, and his verdict is that the execution of the project would cost £3,000,000, and could not be accomplished in under eighty years. It is conceivable that such a project might be undertaken, but it is highly improbable that it will be. The only other source of energy which is conceivably at the disposal of the human race would rest upon some discovery of a means of extracting energy from the ether. I can only say that in the view of the best scientific opinion the possibility of such a discovery is in the highest degree remote, and should not be counted on for practical purposes. It is obvious that the life of our nation can be prolonged by strict economy promoted by legislation. The question of export duty on coal at once suggests itself, together with the afforestation of the country, and restriction of the use of machines which consume larger proportions of energy compared with the results they yield. The wasteful consumption of coal for

domestic purposes, the waste of valuable nitrogenous material in the form of sewage, which ought to yield up its nitrogen, are among the problems which must confront the Legislature at an early date, and the Science Guild would be able to offer valuable advice." Sir William urged that the present generation should exercise thought for the generations to come by conserving the stores of coal existing in England, otherwise in two hundred years he foresaw a general emigration from England to other countries and the decay of the industries dependent upon coal for their energy. Then such people as remained in the country would be compelled to revert to agriculture to obtain the means to live.—S. and Art. of Mining.

The U. M. W. organizers Beausoil, Patterson, & Co. tried to organize at Westville on Saturday evening last. Patriotic citizens froze them out of the halls and they met in a Pool room and cracked jokes with the thirty-six persons who came to take their measures. They said they would come back again when the weather is fine. They need not; the weather for them will always be frosty in Westville.

CANADA'S WINTER.

(From the "Canadian Pictorial" Official Carnival Souvenir.)

Winter is not a skeleton in Canada's cupboard, a thing that must be tolerated but kept out of sight as much as possible. On the contrary we Canadians are proud of our winter, and we want the world to know it. That is why the idea of an ice palace at Montreal was taken up so heartily by the people generally, in spite of a certain amount of opposition from unexpected sources. All the world knows that Canada has a winter, but all the world does not know how the people enjoy it and how much it contributes to their health as well as their wealth. This is what the Montreal winter carnival is designed to proclaim. The Ice Palace is a thing of beauty, but not 'a joy forever' for, under the rays of the strong spring sun, the last vestige of it will speedily vanish. Canada is recognized as a favored land; in no respect is she more favored than in that of climate. There are four seasons, each of which has a charm of its own. Spring is marked by beauty and a kaleidoscopic development that is really marvellous. One can almost see the grass grow, and, before one is aware of it a summer suggesting that of the tropics, but drier and infinitely less relaxing, arrives with a wealth of vegetable products that rank second to none. Next comes autumn decked in gorgeous crimson and gold, when the fruits of the earth are harvested, and barns are filled to bursting and the song of thanksgiving goes up from every heart. Then the shadows lengthen into winter, and instead of fog and rain, dampness everywhere, we have clear, dry cold that sets the blood in motion, and snow that covers our land like a mantle, hiding the unsightliness of a spent vegetation and fertilizing the soil as it can be fertilized in no other way, preparing it to be again the birthplace of such crops as are the wonder and admiration and envy of the world. If our winters were more open Nature would not have the complete rest that is necessary for the quick growth that we look for in the summer, and so we welcome the steady winter, and when the snow lies deep and the myriad flakes are packed close, say, with satisfaction, 'This is a good old fashioned winter,' and look with confidence for record crops during the coming summer,

Priestleys

Mohairs

— and —

Lustres

Have Excellent
Wearing Qualities,

WILL NOT COCKLE
:: WITH RAIN ::

Best for —

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Synopsis of Canadian North-West. Homestead Regulations.

ANY even numbered section of Dominion Lands in Manitoba or the North-west Provinces, excepting 2 and 22, not reserved, may be homesteaded by any person the sole head of a family, or male over 18 years of age, to the extent of one-quarter section, of 120 acres, more or less.

Application for entry must be made in person by the applicant at a Dominion Lands Agency or Sub-agency for the district in which the land is situated. Entry by proxy may, however, be made at an Agency on certain conditions by the father, mother, son, daughter, brother or sister of an intending home steader.

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

In case of "pre-emption" or fraud the applicant will forfeit all priority of claim or if entry has been granted it will be summarily cancelled.

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

When an entry is cancelled subsequent to institution of cancellation proceedings, the applicant for cancellation will be entitled to prior right of entry.

An application for cancellation must state in what particulars the homesteader is in default.

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

The homesteader is required to perform the homestead duties under one of the following plans:—

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

(2) A homesteader may, if he so desires, perform the required residence duties by living on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of his homestead. Joint ownership in land will not meet this requirement.

(3) If the father (or mother, if the father is deceased) of a homesteader has permanent residence on farming land owned solely by him, not less than eighty (80) acres in extent, in the vicinity of the homestead or upon a homestead entered for by him in the vicinity, such homesteader may perform his own resident duties by living with the father (or mother).

(4) The term "vicinity" in the two preceding paragraphs is defined as meaning not more than nine miles in a direct line, exclusive of the width of road allowances crossed in the measurement.

(5) A homesteader intending to perform his resident duties in accordance with the above while living with parents or on farming land owned by himself must notify the Agent for the district of such intention.

Six months' notice in writing must be given to the Commissioner of Dominion Lands at Ottawa, of intention to apply for Patent.

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

W. W. CORY,

SYNOPSIS OF CANADIAN NORTH-WEST MINING REGULATIONS.

COAL. Coal lands may be purchased at \$10 per acre for soft coal and \$20 for anthracite. Not more than 200 acres can be acquired by one individual or company. Royalty at the rate of ten cents per ton of 2000 pounds shall be collected on the gross output.

QUARTZ. A free miner's certificate is granted upon payment in advance of \$5 per annum for an individual, and from \$10 to \$100 per annum for a company according to capital.

A free-miner, having discovered mineral in place, may locate a claim 1600 x 1600 feet.

The fee for recording a claim is \$5.

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

The patent provides for the payment of a royalty of 2 1/4 per cent on the sales.

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

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

The leases shall have a dredge in operation within one season from the date of the lease for each mile of river. Rental \$10 per annum for each mile of river leased. Royalty at the rate of 3 1/2 per cent collected on the output after it exceeds \$10,000.

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

Miners Wanted To Chew BULL DOG TOBACCO,

Because it is the only Tobacco
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for Water after using.

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—W. B. Reynolds, Halifax Representative—

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The Westellar Terra Cotta Company
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Brick and Tile Co'y, and having installed more
powerful and modern machinery, WILL BE
PLEASED TO HAVE ENQUIRIES AS TO
PRICE AND QUALITY.

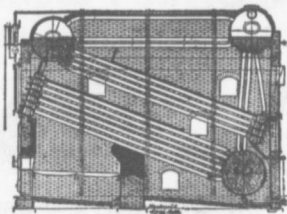
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Head Office — STELLARTON.

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

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FREE EXPANSION OF TUBES.

PERFECT WATER CIRCULATION.

DRY OR SUPERHEATED STEAM

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 For Everybody.

— PATRONIZE HOME INDUSTRY —

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INVERNESS RAILWAY and COAL COY.
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Miners and Shippers of INVERNESS (BROAD COVE)

Screened, Run-of-Mine Slack.

—First Class both for Domestic and Steam Purposes.—

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

Apply to Inverness Railway and Coal Company, Inverness,
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INVERNESS RY. & COAL CO'Y

Time Table No. 26, Taking effect at 1 a. m.
 OCT 11TH, 1908.

EASTBOUND			STATIONS.	WESTBOUND		
Read Down				Read Up		
No. 32	No. 34			No. 31	No. 29	
a. m.	p. m.			a. m.	p. m.	
L 10 42	L 2 25		F. TUPPER JUNCTION	A 10 35	A 2 30	
S 10 41	S 2 25		PORT HAWKESBURY	S 10 37	S 2 27	
A 11 10	A 4 08		L 10 07	L 10 07	L 3 10	
	L 4 13		PORT HASTINGS	A 10 02		
	P 4 2		TROY	F 9 55		
	S 4 30		CREIGNIH	S 9 50		
	P 4 10		JUDIQUE	F 9 55		
	S 4 05		CRAIGMORE	S 9 45		
	P 4 1		ATHERINES FOND	L 9 35		
	A 5 33		PORT HOOD	A 8 27		
	S 5 27		GLENSOE	S 8 10		
	S 5 16		MABOU	S 7 40		
	S 5 25		GLENDYRE	N 7 30		
	S 5 45		BLACK RIVER	F 7 15		
	S 7 05		STRATHLORE	S 7 05		
	A 7 10		INVERNESS	L 6 44		
	P 10			S 6 1		

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

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Miners of the

MABOU DIAMOND COAL.

Burns and Works like Bituminous;

Looks and Lasts Like Anthracite;

IT HAS NO EQUAL.

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MABOU. CAPE BRETON.

North Atlantic Collieries, LIMITED.

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EXCELLENT FUEL FOR

**Domestic, Steamship
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Recent analysis of the coals in several of the seams in this Basin—which will be persistently developed—show them to be remarkably low in ash and sulphur.

All modern appliances for Screening and picking, so that this coal can be shipped more than "reasonably free from stone and shale."

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JERSEY - LILY - FLOUR.



*Best all round flour on the market.
Uniform in quality. Every barrel*

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of the Dominion Coal Company.*

**Air Compressors, Rock Drills,
Imperial Pneumatic Tools,
Air Appliances, Coal Cutters,
"EVERYTHING IN AIR MACHINERY."**

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ALL LOSS OR DAMAGE TO PROPERTY

and Loss resulting from

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For highest pressures with Steam, Hot or Cold Water and Air.
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Unexcelled for Steam, Domestic and General Purposes.

DELIVERED BY RAIL OR WATER.

SHIPPING PORT: PICTOU LANDING.

Quotations Furnished Promptly on Application.

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High Grade

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Unexcelled for General Use.

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High Grade Fuel
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From Coal Washed by Latest Process,
Growing more popular daily—and considered
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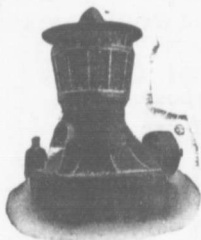
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Better than
Scotch seconds for
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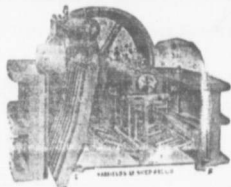
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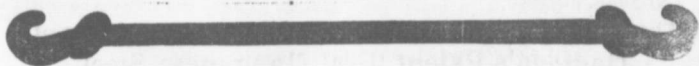
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Gas Coal and Coal for Household Use

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12 Collieries
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OUTPUT:
3,500,000 tons Yearly

Used by Railways, Tramways, Steamships, Manufacturers, Water Works, Light and Power Stations in Ontario, Quebec and the Maritime Provinces, also in Newfoundland and the New England States, Mexico, Sweden, South Africa and the West Indies.

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... ANALYSIS ...

	NO 1	NO 2	NO 3
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Volatile combustible matter	18.94%	27.95%	28.41%
Fixed Carbon.....	75.29%	67.47%	64.69%
Ash.....	3.75%	3.19%	4.19%
	100.00	100.00	100.00
Sulphur.....	1.15%	58%	.79%

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