Maritime Mining Record

AUG. 24 1910

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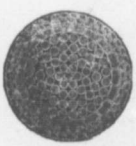

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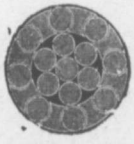

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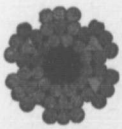

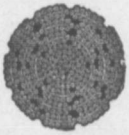

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—LICENSES TO SEARCH—

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FOR INFORMATION APPLY TO——

CHRISTOPHER CHISHOLM

Commissioner of Public Works and Mines Halifax N. S.

The....

MARITIME MINING RECORD

Vol. 13, No. 4 Stellarton, N. S., Aug. 24, 1910. New Series

THE EXPLOITATION OF OUR PEAT BOGS.

—By D Hannel—

(Condensed)

(Continued from last issue)

Some few years back the labour troubles in the United States taught us a lesson which should be heeded, and which should unable us to conceive what a real fuel famine would mean for Canada. Anthracite coal in Ottawa at that time was sold at $12 00 per ton,—what! if it could not be got at any price, and if we had to pay the transportation costs of fuel from either Nova Scotia or the far west? Who can ever imagine the suffering it would entail upon our population? It is very easy to say that such a state of affairs is not likely to occur, but who will guarantee that it might not?

The central provinces of Canada have accumulated no stores of fuel, ready to be drawn upon in cases of emergency. We import what we need from year to year, and any shortage of supply from whatever cause effects seriously our industries and the comfort of our people.

We can not afford, in the light of past experience, to waste capital on the experimentation for the discovery of processes, which shall be continuous in operation and furnish a fuel from peat similar to coal, nor can we wait until someone at sometime in the future will invent such process and demonstrate its commercial possibilities.

Neither should prospective manufacturers listen to the marvellous representations made by promoters of schemes and processes, which promise great profit from production at excessively low costs of a peat fuel superior to anything yet put upon the market, but wisely adopt processes, which are already an assured commercial success in the peat-using countries of Europe.

The Peat Bog at Alfred was acquired by the Government for the purpose of demonstrating to prospective manufacturers of peat-fuel one of the processes and to prevent failure from choosing bogs unsuitable for their purpose, the Mines Branch has recently undertaken a systematic investigation of the more easily accessible peat-bogs. In carrying out this investigation, our peat expert has been instructed to determine and map their extent, ascertain their depth and also the quantity, character and calorific value of the yeat contained in them. So far, twelve bogs have been investigated, mapped and reported upon. In case of need the staff performing this work can be increased to meet the requisitions made upon the Department.

The successful inauguration of a Peat-Fuel industry in Canada may be looked forward to with confidence if, content to accept European practice, we establish peat plants at strategic points on the workable bogs scattered throughout the farming regions of these provinces, which reruire to import coal, and operate them in the interests of the neighboring communities. This will avoid long hauls, for which air-dried machine peat is not fitted.

Regarding the transportation of peat-fuel, our railroad companies, realizing the importance of an adequate fuel supply for the central provinces, and its intimate connection with the prosperity and further development of these provinces, should come to our aid by granting special rates for the transportation of this class of fuel. This is the course followed by Germany in those districts which depend to a large extent upon peat for their fuel.

Air-cried peat is not alone an excellent fuel for domestic use, but for the production of power it proves an ideal fuel in the peat-gas producer, which is to-day, as reliable and efficient in its operation as the coal gas producer. I do not hesitate to say that it is an ideal fuel because the peat from most bogs is free from a clinkering ash and yields on combustion, a fine white residue which readily allows of the thorough cleaning of the fire, and the property of not fusing or caking in the producer assures regular operation. Moreover since gas leaves the producer with a high degree of sensible heat, which must be cooled to the temperature of the atmosphere before being used in the gas engine.—it is exceedingly important that as much of this sensible heat as possible be utilized in the producer itself, in order to increase its thermal efficiency. This is accomplished in coal-gas producers by the introduction of water vapor is decomposed, yielding hydrogen and oxygen. The latter combines with the carbon of the fuel forming carbon monoxide. This chemical reaction absorbs a large amout of heat and lowers the sensible heat of the gas, but the heat absorbed in liberating the hydrogen is to a large extent restored and utilized when the gas enriched by hydrogen is burned in the gas engine or other apparatus. With peat containing from 25 to 30 and more per cent. of moisture, the moisture content is sufficient to accomplish all that is required without the introduction of water in the producer from an outside source.

To demonstrate the value of peat for the production of power for industrial purposes, a modern German peat-gas power plant has been erected by the Department in Ottawa. Its capacity is 60 H. P, and consists of a double fire zone Korting Peat Gas producer, with the necessary gas cleaning apparatus, and a Korting four-cycle single acting gas engine direct connected to a Westinghouse 50 K. W. direct current generator.

While no definite figure can at present be given of the consumption of peat per brake horse-power hour, since the investigation begun some time ago, is not yet completed; our preliminary trials, however, bear out the results obtained in Swedish and German plants, where the amount of peat consumad per brake horse power hour ranges from a little over two pounds to about three pounds, depending on the calorific value of the

peat employed. Since the peat of the different bogs so far examined has a high calorific value, we expect that our figure for the consumption of peat per brake horse power hour will be in the neighborhood of two pounds.

The erection of gas producers designed for the recovery of by-products is not recommended except in localities where such by-products would command a ready and profitable market. In Canada it is far more economical to aim at the complete gasification of all the heat elements in the fuel.

Peat-gas producers for power purposes should, whenever possible, be erected on the bog, and the energy generated in the form of electricity transmitted to neighboring towns and villages for power and lighting purposes as in the case of water power. This is the policy adopted in European countries.

Whatever other valuable products may be obtained, such as moss litter, peat mull, alcohol, packing paper, millboards, ammonia and nitrates, the great and important need for us in Canada is the production from the peat deposits of a constant reliable supply of fuel for domestic and industrial purposes.

When this has been attained and peat fuel has been put on the market in abundance and sold at a fair price, we shall not alone have rendered ourselves to a great extent independent of ontside sources for this necessity, thus unabling us to retain in our own country a large part of the capital now spent annually for the purchase of fuel from abroad, but a new era of industrial developments will draw upon our nation, and we shall here see repeated what has been accomplished in Europe,—the establishment of large industrial concerns on the waste areas of our country underlaid by peat, and the wide streaches of these solitudes will become resonant with the sounds of industrial activity.

MINERS' TREASURY EMPTY.

A press dispatch, dated Indianapolis, August 12th, states that what has been suspected by many of the delegates to the special convention of the United Mine Workers of America and feared by all came to light today when it was dtscovered that the treasury is practically bankrupt and the organization is in debt to locals for borrowed money to the amount of $125,000. In addition to this there is an overdraft of $2,000 unpaid and to meet the expenses of this convention the miners must depend upon the assessments of the present week.

This condition, contrasted with that of five years ago, when the organization had a bank balance of nearly $1,000,000 is creating more discussion than the quarrel between Pres. Lewis and John Walker, for the delegates declare that, with 85,000 men idle and the treasury bankrupt there seems nothing in store for them bnt to return to work on the terms offered by the operators. Lewis and his supporters believe the financial condition will bring the Illinois miners to accept the agreement made by the executive board with the operators, though there is much criticism of his administration because of what is believed to be the needless expenditure of money.

Since the strike was inaugurated in April, the executive board has ordered the payment of benefits to the strikers aggregating $65,000 a week and these on August 8th totalled $664,000. The expenses of the organization over the same time including the payment of organizers aggregated $185,338, leaving the treasury bare on the day the convention assembled and with nothing to depend on except 25 cents per week assessment which each miner at work is expected to pay.

USES OF SAWDUST.

Sawdust was usually regarded as an objectionable product becauee it increases the danger of fire if deposited near mills or lumber piles and necessitates either cartage with accompanying expense or the construction of a "burner" and the use of conveyors or carts to transfer it from the saws.

A double economy, however, is now in progress As a result of the use of band saws instead of the old circular and gang saws, a log that, under the old system prodnced 8 boards, will now produce 9, a very substantial increase in product with a corresponding decrease in the amount of sawdust produced.

Owing to its chemical and mechanical properties. it has an ever increasing field of usefulness. Used as an absorbent for nitro-glycerine, it produces dynamite. Used with clay and burned, it produces a terra-cotta brick full of small cavities that, owing to its lightness and its properties as a non-conductor, makes excellent fireproof material for partition walls. Treating it with fused caustic alkali produces oxalic acid. Treating it with sulphuric acid and fermenting the sugar so formed, produces alcohol. Mixed with a suitable binder compressed, it can be used for making mouldings and imitation carvings; while, if mixed with portland cement, it produces a flooring material. It is an excellent packing material for fragile articles and for dangerous explosives and can be used as packing in walls to make them sound-proof and cold-proof.

MINERS' NATIONAL CONVENTION AT INDIANAPOLIS.

Whatever may be the results of the Indianapolis convention this week, immediate and general resumption of mining in Illinois does not seem likely. Walker's devices as an obstructionist have perhaps not been thoroughly exploited by him. It is possible that several of the Illinois operators might sign up with Walker should the convention be inconclusive in its findings. But it can be said without question of doubt that at no time sine the present wage arrangement with the miuers was put into effect 12 years ago has there been among Illinois operators a feeling of so strong resentment against the unfair exactions of the miners' local officials as now. Just how this resentment will make itself felt cannot be said, but it seems certain that the miners' union is laying up grief for itself in the future, unless Lewis wins a complete victory, which is recognized and yielded to by all elements within the ranks of the organization.—Coal Trade Journal.

The greatest of England's five Georges was not either of those who wore the crown, but plain George Stephensen, of Manchester; and none of the royal Jameses did half so much for the civilization of his country as James Watt.

MARITIME MINING RECORD.

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

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

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

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R. DRUMMOND, PUBLISHER.

STELLARTON, N. S. August 24

THE OFF TIMEPROBLEM.

It is asserted, by those who—one would suppose, are competent to express an opinion—that there is more time lost by men working under contract at our collieries than in any other industry in the province It is estimated that, in the summer months, when their services are in most demand, owing to the rush of coal in the short season to points reached by water, the average number of men off daily is from 160 to 170 per thousand. On an average about a sixth of the skilled workmen are off every day. This is certainly a very large proportion involving a very serious loss. The 'off time' is not only a problem, but a puzzle very hard to solve. The loss to the operators through the much loss of time is serious, and, indirectly, the whole of the men employed, the steady as well as those having a disinclination for regular work, are heavy losers also. If a guarantee were given the mine operators that the contract men would work steadily the companies could well afford to give an increase in rates from 5 to 8 per cent.. The loss of time affects not only the operators and men but the whole community. It adds, at times, twenty cents a ton to the cost of coal. People who grumble at the cost of coal make haste to blame the operators, forgetful that coal cannot be sold cheap if the cost of production is high. A certain company in the province is equipped for an output of 3700 tons a day. Let us take 1,000 tons off and say 3600. There are places in the pit and men enough enrolled to give this quantity daily. In the first half of the present month the average daily output was only 2600 tons, or a thousand tons less than it should have been. The consequence is that the calculations of the company have been upset, their business disarranged and their profits curtailed.

There are some who make apologies for the much loss of time of the colliery workers under contract; citing as reasons for their sympathy the hazardous nature of the employment, the conditions under which men labor in recesses under ground, and the very arduous nature of the work. These people forget that there are compensations. The men are their own task masters, and set the pace, they work in an equable temperature the year round, avoiding the heat of summer and the cold of winter: and their hours of labor depend, in a measure, on themselves. That these and other considerations have weight, is evidenced by the fact that they are willing to take the risks, and any discomfort arising from their being shut off from day-light for the sake of the compensations. The writer sent out a score of questions, to as many miners, relative to work in the mine. One of these was:—'Do you prefer to work in the mine for, say, two dollars per day than on the surface for a similar wage.' Out of the twenty, one man only expressed preference for work on the surface, and there was this condition attached that he should not be asked to dig ditches.

If the time lost by a man affected only himself, and did no injury or injustice to his fellows, his employers and the community, there would be no need for this article. But the fact that it works general injury puts it in the category of labor problems. Off time is a subject that might well engage the attention of the Grand Council of the P. W. A. at its meeting in September. No one, the operators included, will say that miners should not have holidays. All interested are willing that they should have their full quota of holidays. The objection is to the manner in which they are now taken. There is an utter lack of system, and benefits which should flow from holidays are largely lost. All the great works on the Clyde shut down tight for a fortnight in July, and the suggestion is thrown out by Mr. Cantley of the Nova Scotia Steel Company that the plan adopted on the Clyde might be tried at the collieries. Of course there are difficulties in the way, but surely not insurmountable ones. The chief trouble would be the disposal, without too much loss, of the fleet of steamers. The companies in Cape Breton could assist each other in this matter. When Sydney Mines was on holiday the Dominion Coal Co. could help out and vice versa. The Dominion Coal Company would, of course, require to have its collieries divided into two groups, each having a seperate holiday season. Something needs to be done, and the suggestion of Mr. Cantley may bring out others. If the Grand Council of the P. W. A. could evolve some plan of systematic holiday taking, it would deserve not only well of the operators but of the workmen's wives and families, who are not now partakers to any extent of the holidaying of the 'head of the house.'

It may be urged by some of the contract workers that the miners in Britain, at times, work only five days a week. But the cases, as between Britain and Nova Scotia are entirely different. The men in Britain think that by restricting the output they are keeping up wages, and that is possible, for Britain does not need to fear competition in the home market. Britain is an exporter. Canada is very much more of an importer of coal than an exporter, and to restrict output means to give out siders a better chance of securing a share of the market which should be Nova Scotia's. So serious is the loss and inconvenience in the summer time through off days that it would actually pay the companies to donate to the organizers of proected picnics a sum equal to the profit they might make on consideration that the projects were abandoned. When saying that the average number of men off in the summer months was from 160 to 170 per thousand per day, we should have explained that that number was over and above the number absent in the months before the holiday season was on. There are always a certain number off from one cause or another; the 160 to 170 mentioned is over and above that number. It is to be hoped the Grand Council will have the courage to tackle the question and find a way out.

ACCIDENTS FROM EXPLOSIVES.

In the summary Report of the mines Branch of the Geological Survey it is stated that the number of accidents in mines and other places where explosives are used has been increasing at an alarming rate in recent years. These accidents, the Report says, are due, in part to a lack of knowledge of the nature and use of explosives and in part probably to defective manufacture. Whatever may be the case in other countries and in other parts of Canada the remarks as to the increase in accidents do not apply to Nova Scotia. There has been no fatal accidents in our mines from an explosive for several years. Of course there have been mine accidents from premature shots, but with copper tipped needles and stemmers and copper skip, when accidents occur they are traceable to carlessness or rashness. A blown out shot may not in every instance be preventible but a premature shot surely is. The Report says that in attempting to collect facts relating to accidents from explosives in Canada, the quest was found to be very unsatisfactory, since no centralized system for gathering such data is in existence. The Department of Labour tabulates all the facts available, but its information is largely derived from newspaper clippings; the Railway Commissioners obtained reports of accidents due to operation only, and not on construction; the Provincial government record the accidents in mines, but not in any other class of work, and do not always obtain complete returnsas to the number of employes and their occupations.

The following is a statement prepared by Mr. J. G. S. Hudson, of the loss of life in our coal and metalliferious mines during the interval 1886-1908.

In Canada the average for ten years—1889 to 1908, per 1,000 men, was:—

British Columbia Coal mines.....9.21
Nova Scotia Coal mines.....2.67
British Columbia: 1908—
Metalliferous mines.....5.93

The Report goes on to say that the greater number of fatalities in Canadian mines, as compared with those in Great Britain is manifestly due to the enforcement of mine laws and regulations in the latter case, and in the utter absence of protective legislation in the former. This statement is unfair to Nova Scotia. Whatever other provinces may lack in the way of wise laws and regulations, Nova has all that is necessary. Our regulations in reference to explosives and ventilation have rendered our mines compartively safe from explosions of powder or gas. It is claimed that the wise laws and regulations have to be credited with the small per centage of fatal accidents in British mines, some fifty percent less than in Nova Scotia; but the wisest of laws could not wholly prevent the form of accident which makes the Nova Scotia per centage loom big when compared with Britain. Seventy five per cent of the fatal accidents in Nova Scotia occurred through falls of coal and stone, chiefly the latter, and the highest per centage of the remainder from runaways. The high angle of our seams is responsible for the too numerous falls, and to that source also is due the number of runaway accidents. Our coal seam roofs are more treacherous than in other coal countries and accidents will occur in spite of all regulations as to proper timbering. Probably this subject of timbering might well be taken up by both men and masters. The law provides for timbering and spragging and yet places are not sufficiently timbered in time, and spragging is shirked in the absence of the boss. In the opinion of the RECORD we have about all the laws and wise regulations necessary to the reducing of accidents to the mininum; what we are lacking in is discipline. The mine workers and those over them should be made clearly to understand that strict obedience to rules and regulations is the main thing, and that disobedience merits swift punishment. Regulations are of no use if not enforced And curiously those who know well the risks they take in breaking the law are the worst offenders. We have seen in a colliery office a collection of pipes, tobacco and matches taken from old timers, working in a mine where only safety lamps were in use. The per centage of fatal accidents in Nova Scotia in 1908 was the highest in ten years, due to the explosion in the Port Hood mines. The average for the ten years 1899-1908 is 2.67 against a United States average of 3.46. Last year the per centage in N. S. was under the averege being 2.50 while the United States average must have been greater than in any year preceding. In 1889 the Nova Scotia per centage of fatal accidents per 1000 employees was 3.39 against 2.98 for United States, and in 1908 3.48 against 3.55. In other words our accidents in 1899 were 0.41 in excess of those in the U. S. while in 1898 theirs were 007 in excess of ours. This should be encouragment to further efforts on the part of men and officials to strive for further reduction in the death rate.

PETER PATERSON'S TIN STOMACH.

Who has nrt heard of Peter Paterson. He figured a half a century ago in amateur music halls in the song whose refrain was:—

"Oh, Mrs. Peter Paterson
I'm na'—so verra—fu"

Later he appeared in these parts and later still in others. Those who know Peter and those who don't, have heard his opponents refer to his 'tim' (empty) heed', but not until recently was ever mention made of his tin stomach. One of Peters traits is his cunning, but a weasel of a policeman caught Peter nicely the other day. It was a mystery in a certain mining locality where the whisky came from on Sundays. The Inspector, a policeman, donned plain clothes and mixed in the crowd of miners at a corner, where all the talk was of football and whippets. By and bye the bobby sees Peter approaching and hides until he comes nearer. The rest of the story is told by the Glasgow Mail's commissioner:

"The policeman caught sight of Peter Peterson sailing down the street with measured tread, smoking his pipe. There was nothing strange in this, and if the constable's eye had wandered elsewhere than focussing itself involuntarily on Peter's person the event which follows would not fall to be recorded. As Peter got nearer and nearer the group, the constable edged more and more out of sight—a suspicious enough circumstance of itself and betokening some sinister move

on the policeman's part. Among some things noted by the policeman in regard to Peter's outward appearance was that he had developed amazing aldermanic proportions in the region of the stomach since he had seen him late the previous Saturday night. Peter had certainly a suspiciously bulkly appearance about the chest and stomach, as if he had suddenly become the victim of some dropsical disease. Peter had joined the group before his glance fell on the policeman. He could not move off at once without some excuse, and he decided to "Chance the Duck." The constable was fairly sharp-witted, and he began to edge round towards Peter, and eventually got into conversation by asking for a light. The talk shifted to a subject where the element of beneficence entered. 'Peter," said the policeman, coming quite close to his victim, and with a broad, knowing smile on his face, "there was never a truer thing said by Rabbie than that 'the heart's aye the pairt; it mak's us richt or wrang."' tapping at the same time Peter near the pit of the stomach. It was a diplomatic tap, and Peter looked a little skeerie. The deep metallic sound which caught the constables ear when he tapped Peter did not surprise him; he expected it, and would have been much disappointed if it had not given forth a sound. Peter began to move off from the group, and in imaginatiou was preparing for a sprint. The policeman cut short his imaginings by putting his arm through Peter's and both reached the police office without attracting much attention. The policeman asked Peter to disrobe and prove that his "fat was genuine fat—real flesh and blood. Peter reluctanaly obliged. First came the coat, then the waistcoat, and then the tin stomach made to fit the body, with straps to keep it in its place, with a screw-stopper at the top. The sergeant on duty unscrewed the latter, and the fiery liquid trickled out into a bucket, which by apothecary measure amounted to two quarts of whisky. Peter had been for some time working in the Welsh mines, and it was there that he got the idea of the tin stomach. He developed the idea by constituting himself a club—president secretary, and treasurer rolled into one—and the members entitled to potations from the tin stomach were sworn to secrecy.

TECHNICAL EDUCATION.

Those who have shown the more intelligent interest in the proceedings of the Royal Commission and who seem most desirous that our young men should have opportunity to secure a scientific education are unaminous in the expression of the opinion that, if the labors of the Commission are to result in practical good, and are not merely pastime, the Federal Government must give pecuniary assistance to the several provinces of the Dominion to enable them to give technical education that place which it deserves. It will not be a sound argument to say that because common school education is wholly in the hands of the provinces, so should they wholly attend to the providing of technical education. They are not at all on the same plane. True the object of all education is to make more intelligent, industrous, well behaved citizens. At the same time it may be said that while elementary—so to speak—education is for the community, technical edncation is for the state. A large majority of those educated in the common schools reside and remain residents of the place in which they were born and bred. With those who receive a technical education it is different. The vast majority in order to find opportunities for putting to use the knowledge they have acquired, are forced to shift about and at times travel far from home. Suppose Pictou County produced this year half a dozen each of mining, civil, and electrical engineers, the chances are that not three out of the bunch of eighteen could secure suitable employment in the county. While no doubt all could secure places, they would have probably to scatter over all parts of the Dominion before doing so.

For this reason, if for no other, the Federal Governmene should give direct and substantial assistance. It will not be difficult to determine the amounts that should be given to the different provinces. A variety of methods present themselves. Perhaps payment by results would be the most equitable.

Rubs by Rambler.

In the Antigonish Casket appears a very curious little letter from lawyer C. E. Gregory to Mr. Wall, presumably—so local is fame at times—town clerk. Here is the pith of the letter:—"For some time past I have refused to appear before the higher courts in liquor cases, as I am of opinion the figuring in these cases does not add to ones prestige before the courts." This is something new and startling. Hitherto there were those who declared that a lawyer—who was not impecunious and short of briefs, or who had some standing among the fraternity and was careful of his reputation fought shy of taking up the defence in such cases. Evidently Mr. Gregory thinks it every whit as derogatory to act for the prosecution, in illegal liquor selling, as for the defence I am inclined to the opinion that in the use of the word 'prestige'. Mr. Gregory as it were veils the truth. The prosecution of illegal venders should not detract from a lawyer's prestige though it may not add to his patronage list. To be successful in a point of law in a liquor case carries as much prestige as to be successful in defending a thief. It seems to me that Gregory's statement is a reflection on our judges. Do they look askance on a lawyer who acts for the prosecution in a liquor case. Do they pay less heed to him in other cases on account of that connection. Is it with the judges prestige is lost. If it is then there is something wrong with our judiciary. If he loses prestige with his confreres then they must be a rum lot.

* * *

That celebrated literateur, which nothing in this life will satisfy, and who is not building for another, Mr. McLachlan erstwhile McLaughlin, in his funny article in the Socialist Review said of the P. W. A. that in its palmiest days it was

never anything but a little toy trade union." On a former occasion I recommended some lines of Watts to the gentlemen and would now commend a few more, but then that would be a censurable waste of pearls. From little acorns, we are told, grow mighty oaks, and therefore it is not surprising to common sense people to know that the little trades union, the P. W. A., accomplished some mighty big things, bigger than have yet been accomplished by the great big miners trade unions of Great Britain. When 'the' McLaughlan came to this country he told of the wonderful strength and resources of the British Unions and what they could do. Great and big as they were the little toy union, the P. W. A , managed to forestall them in many important things. For instance it is a score of years, or more, since the minimum wage of miners in N. S. was $1.50 a day. At the demonstration in connection with the eleventh gala day of the Lanarkshire miners the following resolution among others was carried:—

"We also demand that winding enginemen and colliery firemen should pass an examination and obtain certificates of competency for these occupations so as to secure greater safety to the workmen under their charge" The great big miners union of which Mr. McLaughlan presumably was a member has scarcely emerged from the background, judged by the work it has done in comparison with that accomplished by the P. W. A. Years ago the P. W. A. saw the necessity for having all enginemen and firemen qualified by examination, and a law to that effect has been in force for years, and yet Lanarkshire, with its great unions, and where McLaughlan's light shone, is groping after just these things.

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I have at times referred to the hardships imposed upon elderly persons by the British compensation act. Employers would not have elderly looking men. The man growing old was shoved to the side as not agile enough to escape accident. The evil being done has been recognized and attempts are being made to amend the act so that elderly workmen may make special agreements with masters. If the amendment carries the elderly workmen will be in good demand. The amendment proposes to deal with the admitted hardships entailed on elderly and physically infirm workmen under the Workmen's Compensation Act, 1906, by enabling such a workman to enter into a special agreement in respect of compensation under the act. It proceeds generally along the lines recommended in the report of the Department Committee appointed in 1904 "to inquire into the law relating to compensation for injuries to workmen." It is made clear that the initative is to be taken by a workman, and an employer cannot proceed in the matter until he has received a written application from a workman, countersigned by the officer in charge of the Labour Exchange of the district, expressing his desire to enter into a special agreement.

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The Canadian Courier in an article highly eugolistic of Hon. McKenzie King refers to him as the 'boy minister.' No one dare criticise any of Mr. Kings actions without a swarm of liberal press bees swooping down on him. This raises a doubt in the minds of some, as to Mr. Kings alleged towering abilities. If in the Department of Labor he has been a towering success, his works are all the praise he should need. We in Nova Scotia are not in a position to fairly criticise the boy minister. He has never shown us any of the tricks of his department. Perhaps we did not give him the right opportunity. We did give him one opportunity but then it may not have been to his liking, and that perhaps accounts for his not making much of a fist of it. Indeed the boy minister acted in a way which could not be called other than boyish. There was a strike at Springhill and Mr. King came all the way from Ottawa to fix it up. On coming to the junction he found that Mr. Cowans was in Halifax. Instead of taking the next train to Halifax he sent a long telegram to Mr. Cowans and took the next train back to Ottawa. So like a boy. Why did'nt he telegraph to find out if Mr. Cowans was at home before taking so long a journey. Was it because he was a boy and inexperienced that Laurier sent Sir Frederick to assist Mr. King in the G. T. R strike settlement. What is the use of beslobbering the boy over the settlement; any one with ordinary brains could have done all that the minister did with the government at his back. By and bye when Canada grows bigger the Department of Labor will need a heavy-weight. By that time Mr. King's boyhood days may be over and by age and experience he may be fitted for so ticklish a post. Give Mr. King an open field and no favor, but for pity sake don't say he is a wonder because he does the work of his office to the best of his ability.

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McCulloch of the U. M. W. has said some funny things in his time. Among a host of curious things he stated, take the following: Speaking of John Moffatt, before the convention in Indianapolis last fall he said; "They did everything they could to get him out of office, but he was surrounded by legislative enactments which prevented them from ousting him." That certainly is as rich as they make them. John Moffatt was never surrounded by legislative enactments; he was surrounded by a lot of loyal P. W. A. men who insisted that he should not mind the howls of a number of hungry wolves. "We are up against a hard proposition but we must win". Yes, it was too hard a proposition for the U. M W., with its barrels of money and its hundred and twenty seven paid officers, and they lost.

"But upon the conclusion and results of this strike will depend the life of the International Trades Union movement of Canada. The fight there is against International Trades Unionism . . ." Well that sort of union must now be dead as the results were against the U. M. W. "The entire press and functions of the Provincial and Canadian government are turned against us. . . , The Conservatives, who are out of power, are with us, but the liberals who are in power do everything in their power to defeat our organization', Well now who would have thought that. The Post, a conservative organ, now denies ever having been with the U. M. W. "The practical miners who have come in, having been deceived, we have shipped out. We hove shipped thousands and thousands out." My you certainly did a big bnsiness. "The newspapers over there have stated that the job a man could get in the Pittsburn district depended on the beauty of his wife. I resented that insult because the miners, their daughters and wives stand as high in the moral world

as the wives and daughters of any other men under Gods blue heaven." McCulloch has evidently no sense of humor. If the thing was said it was by a jocular grip man. The wives may be all right but as to the morality of men who lie and lie in wait with dynamite etc., etc., there may be doubts.

"What I want you to do is to notify your people that that strike in Nova Scotia is not settled nor will it be settled until our flag of victory waves over the Dominion Coal Co. in that country and we have raised the standard of wages." The strike must still be on though the men are at work, for the flag of the Dom. Coal Co. still flies and the standard of wages is the P. W. A. one.

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The U. M. W. of America is a society run on the most extravagant lines. It has a small army of paid officials. That can easily be guessed at from the number that live on the society in so small a territory as Nova Scotia. For the three months ending June, the U. M. W's. paid to its officers and organizers salaries $31,000 odd, and expenses $29,090, or at the rate of $240,000 a year. It costs a dollar a year per member to pay salaries and expenses of officers. Take time to digest these figures. With a hundred and twenty-seven paid officers the wonder is that its membership is so small. In order to keep this great society from going to the dogs it is necessary to provide an officer for every 1970 members. Until the advent of the U. M. W. to Nova Scotia, the P. W. A. was conducted at an expense for salaries of twenty cents per member per year. At the present time it is 40 cents. The P. W. A. can get along well with an officer—paid—for every 5,000 members. To pay its officers it costs every member of the U. M. W. eight cents per month. The P. W. A. members have to pay only half that amount. The U. M. W's. evidently and without doubt is a splendid society for the select 127, few, and not much of a society for the 250,000, many.

THOMAS CANTLEY ON TECHNICAL EDUCATION.

The following is part of the highly instructive paper submitted by Mr. Cantley to the Royal Commission on Technical education:—

Technical education may be dealt with under four divisions said Mr. Cantley. 1. What is it? 2. Have others adopted it? 3. Do we need it? 4. How can it be got?

First: By technical education we mean such special training as will qualify a person to make the greatest success in the particular branch of productive industry in which he is engaged.

The education of all who are in later life to be engaged in productive industry should be measured, and to a large extent guided, by the general requirements of that branch of industry to which they intend to devote their working years. Before their need for technical instruction can possibly be met, our present school system must be reconstructed. More time must be given to, and more thorough work done along lines of primary education; in short, our mining, manufacturing, agricultural, and fishing population, which comprises practically all the working population of Nova Scotia—must be given a much more thorough ground work in reading, writing, arithmetic and mathematics; all higher education of every kind must be relegated to the high school and university. The former should be compulsory, the latter optional; the former should be absolutely free as to both tuition and text books; while we are not concerned as to whether the latter is free or not. The men who are thoroughly in earnest in their desire to acquire a higher classical or college education, can usually find means of acquiring it, and they will be no less better men if the getting of it entails some sacrifices.

To the second question. "Have others adopted it?", the answer is yes, Yes. Germany is probably the most conspicuous example. The great change which came over the national life of the empire after the war of 1870-71., resulted in the universal discussion of the best means of education for the German work-people, and took practical shape some years later in the adoption of an entirely new system of education for the wage-earning classes, many of whom at the time could not write, and were entirely ignorant of foreign inventions, scientific discoveries, or technical knowledge of any kind. To realize the advancement made by industrial population of that country and their condition to-day, it is only necessary to compare the present extent and the growing importance of every class of industry in Germany. The best thought, the keenest intelligence and the greatest energy of the nation have been concentrated in the advancement of its prosperity. The life and the energy of the people has for the past 35 years been devoted to the task of raising their industrial population to a higher plane of efficiency.

The industrial growth of the country may be measured by the amount of fuel consumed, which, in round figures has increased from one hundred million tons in 1895 to over two hundred million tons in 1907; and the exports of the country, which in 1889 stood slightly under nine hundred million dollars, in 1908 had increased to seventeen hundred and fifty million dollars. During the same period the population increased from forty nine million to sixty-three millions. Or, in percentages, the population increased less than 30 per cent., while the export trade, almost entirely manufactured goods—had practically doubled.

Close examination of the causes which brought about this German success, will show that it is owing to the fact that nothing is done in a haphazard way; system, method, and inflexible law are the factors which brought about these results. Some of their methods may not appeal to us who will regard them as tending to sink individuality, and personal initiative. The German, however looks at the nation itself as the individual and all are trained to act together so that the best results can be obtained.

Third. What has been done? In Canada as a whole, little or nothing has yet been done to provide technical education for our working people. In this province, the government of Nova Scotia has devoted a good deal of attention to the higher education of our mining population, and with most excellent results, for I believe that we have among the coal-mining population of this province a higher proportion of skilled coalminers than any other section of the British empire, men who, through the evening schools and otherwise have studied the technical side of their work, gone up for examination and obtained certificates. The government of this province is entitled to very great credit for the facilities which they have placed at the disposal of our mining population. The men are entitled to no less credit for having taken advantage of

(Continued on page 18.)

AROUND THE COLIERIES.

On some days the output of the Springhill collieries is 650 tons. The output shows a steady, gradual, increase.

The concrete foundations for the immense building for the Trenton Steel works are in readiness for the superstructure. Some 75,000 tons of steel will be used in the construction.

There will be no harvest excursions this year for which the captains of industry in Nova Scotia are duly thankful. The demand for common labor is brisker than since the 1900—1904 boom days.

Talk of the profits of coal barons? It is two years since the Crow's Nest Coal, paid a dividend Lately a dividend of one per cent has been declared. Considering all risks ran not even the Dartmouth Patriot, can say this is an exorbitant dividend.

District Local No. 26 though it has or had wealthy parents, cannot claim to have much in its own right. At the end of March the balance on hand was $124,00 but then it owed one lawyer $1105.00 and another $250.00 We are afraid a special levy will be necessary, and who is to pay it unless the officers give of their abundance.

Commenting on the RECORD's statement that there are beds of shale in Antigonish County fifty feet thick, an expert says that there are not only beds of that thickness without a fault but a bed five hundred feet thick extending for at least nine miles and two miles in width. Well, the only thing now necessary is to have the quality tested. If it is good for twenty-five gallons of oil to the ton there ought to be something doing.

Through the courtesy of the Dominion Coal Co., the members and wives and friends of the P. W. A. had an outing at Baddeck on the 13th. inst. Over fifty cars transported the members from the several districts to Sydney, where they embarked on three ocean going steamers for a sail through the Bras D'Or to Baddeck. The best of good feeling exists between the members of the P. W. A. and the company, and it is hoped nothing will soon occur to disturb the happy relations.

Where some of the papers get information it is hard to say. The most of them are away off as to the standing of the U. M. W., and go on the assumption that reports ot the finances are only issued yearly. They should be issued quarterly and likely are. The balance on hand June 1st. was only $35,000. The income for July would be about $55,000 which with the balance would make $90,000. The average monthly expenditure for the quarter ending May 31st. was $154,000 odd which would leave a debt balance of $64,000. No wonder there is uproar in the ranks of the U. M. W.

Some people wonder why the Dom. Coal Co. has not said to one of its workmen at Point Aconi: "You cannot serve two masters, either you will have to leave the other or leave us."

People viewing any of our break-waters after a storm, say Port Morien for instance, marvel power of the waves that can lift a five ton rock on the top of the wall. At a a big coal shipping port in Scotland, where a great break-water in being built, during a storm, blocks of concrete weighing 100 to 200 tons were tossed about.

It must be gratifyfng to all patriotic Nova Scotians to learn that the foreign undisciplined, unreliable U. M. W's. are fast losing ground in the Province. For instance Local Union No. 945 of Sydney Mines had a year ago a membership of 400. Since then more than half the number have seen their miatake in joining. The membership a fortnight ago had run down from 400 to 135 and probably it is now less than that.

Will the U. M. W. leaders, McDougall, McLellan and McLaughlan tell us what now they think of the U. M. W., whose funds they told us were able to bring the Dominion Coal Co. to its knees. Will they be manly enough to say they leant on a broken reed, and that, while the great and all powerful U. M. W., is torn into factions, the pretty little toy union, the P. W. A., still goes placidly and peacefully on, fulfilling its mission.

The following resolution was passed by Equity Lodge at their last meeting:—

Whereas, the Dominion Steel & Coal Co. very generously gave their trains, boats, etc., gratuitously in order to provide the members of our society and friends an excursion.

And whereas, owing to the extraordinary precaution of their officials what was possibly the largest excursion numerically that has ever been on this Island passed off without hitch, or accident of any kind And whereas, while we recognize the large expense of the Company, we realize that no matter how disinterestedly incurred, it has served their interests better than ten times the amount placed in reserve to fight the just demands of labor, inasmnch as it has promoted a better feeling and inculcated a spirit of compromise between men and officials which should, by paving and smoothing the way for the mutual agreement, save both capital and labor the enormous losses sustained by industrial strife in the shape of strikes.

Be it therefore resolved, that this lodge Equity. No. 11, while heartly thanking the Company through their chief officers, Messrs. Butler and McDougall for our splendid holiday, place our selves on record as being in harmony with the policy initiated by the management, and pledge our hearty co-operation in all things tending to the promotion and expansion of our industry which means so much to the province. (Sgd.) John T. McDonald, Silas Stillman, Fergus Byrne, Committee.

AROUND THE COLLIERIES.

There are twenty times more persons engaged in farming than in mining in Canada. That is the reason presumably why the papers pat the farmers and bat the mine owners.

Among the many reports in circulation is one to the effect that Montreal men are interesting themselves in the development of the Hull iron mines, near Ottawa. One of the owners of the property has left for Sweden to investigate the electric smelting process with a view of establishing a furnace near the mine. Railway facilities to the mines will be furnished by the Grand Trunk Railway. Should the electrical process be considered unsuitable for application in this locality, it is proposed to ship ore to existing furnaces in the United States, and to erect smelting furnaces in Montreal to use Nova Scotia coal.

The national organization of the U. M. W. has no funds to support strikers in the U. S. and it is not likely there will be any for Nova Scotia. The following is poor consolation for the Springhill miners:—

"The strike in the Westmoreland County Pa. region is on its last legs. The last gasp was an appeal to Governor E. S. Stuart to investigate the conditions ruling there. This he said he has no authority to do, but promised to direct the attention of the State Department of Labor to it. The strike was conducted on a scale that meant a heavy expense, but as the funds were withdrawn, because of the empty cash box of the national organization, it was suggested that the strikers return to work whenever and wherever they can, with a promise that the contentions will be again taken up at a more opportunity time."

The Sydney Post, former right bower of the U. M. W's, has this to say of the C. B. big P. W. A. outing:

"The P.W.A. excursion to Baddeck on Saturday was participated in by upwards of 4,500 people—the members of the P. W A. lodges in the Dominion Coal Company's district and their families and friends. The Dominion Coal Co. fitted up the colliers Coban, Cape Breton and Cacouna, as excursion steamers and placed these three boats at the disposal of the men for the day's outing. A special train, provided without charge by the Company, conveyed the picnickers from the colliery towns to the International Piers, where the three steamships were under steam and ready to start for the inland lake cruise.

Right here it may be said that the transportation problem which loomed up large in the beginning and which was, perhaps, the biggest undertaking of its kind ever attempted in the province, was handled capably and with apparent ease by the company's shipping and railway superintendents, Messrs. J. R. McIsaac and L. McLean."

With the exception perhaps of one of the Glace Bay papers the press of C. B. declare that the P. W A. day was one of the most notable excursions that ever sailed down the Sydney Harbor.

If any of the coal companies had a weighman and he was convicted of illegal liquor selling, he would be discharged the moment his guilt was made known. It seems the U.M.W. with all their professions of interest in the cause of labor are not particular as to the character of the men they put into positions, as witness the following, from the Amherst news:—

"An interesting case came before Stipendiary McKenzie yesterday afternoon from the Joggins Mines. It was in the form of an application under the Mines Act made by the maritime Railway Co. for the dismisal of Frank McNeil from the position of check-weighman. The ground of the charge was that McNeil had been convicted of a violation of the Canada Temperance Act. J. L. Ralston appeared for the Company and C. R. Smith, K. C., appeared on behalf of McNeil."

Referring to the Springhill strike a Cumberland County paper says:—

"Although there are no visible signs that a settlement is in sight, yet there are indications that would lead the onlooker to conclude that a settlement of the strike in the near future may be expected. The News believes that the miners are prepared to modify their demands and that the question of the recognition of the U. M. W. would be waived. Surely Mr. Cowans on his part could yield some ground and meet the men a good half way."

If the U. M. W's. in Springhill are willing to drop recognition it is a true indication that the battle is going against them. 'Recoghition' was the chief one of their several demands. Of course Mr. Cowans will 'yield some ground' If properly approached the RECORD is of opinion that he will not insist on a reduction in cutting rates of ten per-cent as at first announced but will be content to cut the last announced reduction in two making it only two and half instead of five per-cent. Of course Mr. Cowans would have to be approached at once as with every increase in output he may be less inclined to be conciliatory.

It has been said electricity is not a safe agent to use in a gaseous mine, but it is a fact that not a single mine explosion in this country has been traced directly to the use of electricity. In one or two minor cases it has been estimated that this may have been a contributory cause, but it is problematical. That electricity will ignite gas or coal dust is patent to any one at all familar with its application, but there is no reason why it cannot be made as safe as any other agent. In some of the deepest and dangerous mines in the world electricity is being used with comparative safety. It does involve certain problems in order to secure safety, and should only be used in gaseous mines after a very careful study of the conditions and the best methods of application. In a gaseous mine many more difficulties will be met in the application than in a non-gaseous mine, and as a results, it requires that a more careful study of the situation should be made and a better class of skilled attendance demanded.

(Continued from page 15)

it. And both the coal mine operators and men are to be congratulated on the results obtained.

Up to a few years ago, beyond the establishment by the government of Nova Scotia of evening classes and other facilities for the training of our coal mining population, practically nothing was done towards the technical education of any other class of our people, altho the population engaged in agriculture, manufacturing, and in fisheries stood in no less need of education along the lines incidental and necessary to their several vocations. A few years ago however, the Dominion government, by a system of travelling dairies, did an enormous amount of good, and probably added millions to the value of the dairy products of this country. A little has also been done in connection with the curing of fish, tho there is considerable diversity of opinion as to the success of that venture."

The Western Branch of the Canadian Mining Institute, at its meeting lately held in Vancouver, B C., passed a resolution requesting the Dominion Government to arrange for the admission duty free of oxygen breathing apparatus for mine rescue work. This request was forwarded to the Hon. Wm. Templeman, Dominion Minister of Mines. It was stated at the meeting that the United States Government had exempted such apparatus from duty on its being brought into that country, which was an important consideration in the equipment of mines with such apparatus. Another point urged in connection with the use of oxygen breathing apparatus was the great desirability of having it uniform in character, so that equipment one mine might be interchangeable with that of another. The distinct advantage of having the equipments of several mines, together with men trained in the use of it, rushed to the scene of of any serious disaster was urged, and the hope expressed that mine-owners generally would recognize the special need for uniformity, so that in times of great emergency there might be readily available ample rescue equipment and many men trained in its use.

We are wiser than our fathers; and from the modest subline altitude to which we are lifted by physical science, and the far-extended range of mental vision which it opens up to us, we can see further into the plans of Providence than those who went before us, and can conjecture the early, if not the remote, future of the human race in our land and in other lands. Happy that people whose legislators study the best mode of developing the natural resources of their country, and whose great men become great by improving the condition and promoting the welfare of the human race.

"Up to this time it has been difficult to adapt the use of electricity to the ordinary coal puncher or mining machine. It looks now as if a resolution of this detail was in sight. Already it is applied to other forms of mining machines, but because of certain characteristics, they are not now available for use in all mines. With this feature of application solved there will be no occasion for the use of compressed air in mines. Before it is entirely eliminated from the older mines, many changes will have to be made, but in the opening up of new mines the time is about here when no other form of energy will be required.

The Extraordinary rapidity with which the electric furnaces for the production of steel have been developed and perfected since the publication of the Report of the Commission appointed by the Dominion Government to investigate the Electro-thermic processes in Europe in 1904, will be appreciated when it is stated that only four electric furnaces of comparatively small capacity were then in existence in Europe; whereas in 1908—four years later—there were forty-six in operation, and thirty-one under construction.

The development of the electric furnace for the production of pig iron has proceeded much more slowly, and it is only within the last eighteen months that a commercial furnace has been constructed and perfected by the Aktiebolaget Electro-Matoll, Ludvida, Sweden. At the present time a 2,500 horse-power electric shaft furnace of this type is under construction at Trollhatten, under the auspices of the Jern-knotorets, of Sweden.

For a considerable time German and Austrian mining companies have been using gasoling locomotives for mine haulage, and there are now about 300 of these engines in various parts of the globe. Compared with steam locomotives for mine haulage in general, these machines have the following advantages which may appeal to some, even though equipped with steam locomotives: They consume no fuel during stoppages; they require no water to replace that evaporated in the boiler; they possess no boiler to require repairs or inspection; they are of less weight; and when at work or idle do not fill an excavation with foul gases. They may be used also in mines where naked lights are prohibited and the purity of the ventiliation is essential.

If it be true, as Baron Liebig asserts, that civilization is the economy of the poor, we have it in our immense areas of bituminous coal. There is no known agent that can answer as a substitute for the vast power and almost limitless usefulness of coal in its general adaptation to the wants of man; and that nation will maintain the foremost rank in enlightened modern civilization which controls, to the fullest extent, while it lasts, this wonderful combination of light and heat and force.

INVERNESS RY. & COAL CO'Y

Time Table No. 28, Taking effect at 1 a. m OCT 17TH., 1909.

WESTBOUND Superior Dir.		STATIONS.	EASTBOUND Inferior Dir.	
53	51		54	52
P. M.	A. M.	P. TUPPER JUNCTION	P. M.	A. M.
3 35	10 45		3 45	11 00
3 25	10 35	INVERNESS JUCT.	3 55	11 05
3 17	10 29	PORT HAWKESBURY	3 55	11 11
3 00	10 12	PORT HASTINGS	4 08	11 30
P. M.	10 02	TROY	4 13	A. M.
	9 57	CREIGNISH	4 25	
	9 44	CRAIGMORE	4 35	
	9 37	JUDIQUE	4 50	
	9 28	CATHERINES POND	5 05	
	8 55	PORT HOOD	5 18	
	8 45	GLENCOE	5 33	
	8 35	MADOU	5 38	
	8 25	GLENDYRE	5 58	
	7 50	BLACK RIVER	6 10	
	7 40	STRATHLORNE	6 26	
	7 25	INVERNESS	6 48	
	7 12		7 08	
	6 55		7 20	
	A. M.		P. M.	

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OPERATING THREE THICK SEAMS NOS 1, 2 AND 3

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FRESH MINED SPRINGHILL COAL

. . . ANALYSIS . . .

	NO 1	NO 2	NO 3
Moisture	2.02 %	1.41 %	2.71 %
Volatile combustible matter	18.94 %	27.93 %	28.41 %
Fixed Carbon	75.29 %	67.47 %	64.69 %
Ash	3.75 %	3.19 %	4.19 %
	100.00	100.00	100.00
Sulphur	1.15 %	58 %	.79 %

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Mines

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