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# MMRIFIMR MIIMIJMG RecoRD 

Vol. 19
March 14th., 1917
No. 17
"SAFETY-FIRST."
"Safety-first" was one of the principal points of discussion at the meeting of the American Institute of Mining Engineers which recently closed a four day session in New York city. Several papers touching on this subject were read and were later discussed by many members.

The report of the secretary of the committee on safety and sanitation was a general review of the work as carried on at a number of plants. The report said that while no solution of the safety problem is to be found in a strict standardization of methods, rules or devices, as the various mining, milling and metailurgical practices present too many conditions differing broadly in general principles, some standard system embodying principles already proven to be efficient should be created, which may be modified or elaborated to fit working conditions as they exist in the various mining camps throughout the country. It is stated that the widespread adoption of safety measures by both large and small operators is conclusive argument in favor of economic results. The cost need not be great, and should be, in a measure, proportional to the pay-roll.

In a list of helpful suggestions the following are included :

Make it clear to all that the management is doing this work for the good of the workmen and their families.

Have no rules that are not enforced.
Do not depend too much upon rules and regulations but remove the danger wherever it is practical to do so.

Those administering safety orders must see that they are carried out. A boss ordering a dangerous roof taken down, or merely a nail driven flush, should not leave until his instructions are executed.

No possibility of conflict of authority should exist.
No intoxication should be tolerated, and should be condemned by fellow workmen, as well as by the management.

An educational campaign is absolutely essential.
Every injury, no matter how slight, should be recorded, and medical attention or first-aid given by competent persons.

Any boss discovering an injury to any of his men which has not been reported should inquire as to its cause, and reprimand failure to report such injury.

Medical classification of all men employed should be made.

Fooling and wrestling should be strictly prohibited as many accidents are caused in this manner.

Engage only sober, careful and reliable men.
In a paper entitled "Shot-firing in Bituminous

Mines, " M D Cooper, assistant superintendent, Ford Collieries Co., at Curtisville, Pa , discussed data obtained by him while employed as a shot-firer for almost one year.

Mr. Cooper told of the materials used, method of firing, cycle of operations, misfires and the thot-firer's report, and concludes his paper by say ng that the most essential precaution to be taken in an effort to safeguard the firing of shots is the selection of properly qualified men to do the work. It is especially desirable, he says, that one or two competent men be made available to act in the capacity of shot-firer in case of the absence of the regular inclimbent of that position. It is a dangerous practice to place the battery and wire in the hands of a partly qualified man and tell him to shoot during the shift. Nor is it sufficient, as a rule $t$, assume that because a man was once considered competent to act as shot-firer he will always continue to be careful.

The importance of giving adequate warning before shooting ought never to be lost sight of by the shotfirer and it is the best practice to personally warn all men on all sides within dangerous proximity to the charge, then to call out loudly to warn persons approaching from other parts of the mine, and wait five or ten seconds after calling before firing,--Coal Trade Journal.

Presiding at the conference, in Birmingham, of the National Council of Public Morals, the Bishop of Birmingham said that we had discovered that when we had spoken in the past about decadence we had been speaking about that which we did not know. The war had stirred the national character, and it was an encouragement to every religious and social worker to feel how good and sound at the very heart was the average man and woman of this land.

Mr. John Hodge, the British minister for labor, speaking at Rotherham, said that before the war British workers were Free Traders and wanted cheap commodities, but the scales had dropped from their eyes. He was going to have no imported German steel in future while there was a single idle furnace in this country. Australia was a protected country, and the standard of living there was the highest in the world.

It is claimed for the Amalgamated Society of Engineers that it is the wealthiest and most powerful trade union in the world. It has a membership of 230,000 and accumulated funds of $£ 1,750,000$.

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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Single copies 5 cents.

## R. DRUMMOND, PUBLISHER.

STELLARTON, N. S.
MARCH 14, 1917.

## IRON ORES.

More than once, in reply to assertions that Nova Scotia's iron ores were limitless in extent, the Record has stated that it has yet to be proven that there are in the province ores of present day commercial value to warrant large expenditure in development. That there are many deposits of ore, some of these large, has never been disputed, but where there is quantity the quality is lacking. Railing accusations have been brought against the two big steel companies for not having made strenuous efforts looking to the working of the iron deposits of the province, and contenting themselves to draw supplies from Wabana. Can it be possible that these accusers are ignorant of what has been done, and attempted, in the matter of the exploitation of native ores? It is well known that, under the impression that there was much ore at the East River of Pictou, a blast furnace was erected at Ferrona, and was in operation for several years, when it had to be abandoned, because the ore being pockety, could not be secured in quantity sufficient to keep the furnace supplied. Later the Nova Scotia Steel and Coal Company made heroic attempts to mine or at Arisaig. This also had to be abandoned as an unprofitable business. This company is now engaged mining ore at Glencoe, Inverness county. The ore here must be of an unusually high grade and of a desirable quality, as to mine it and take it to Sydney Mines must cost the company three or four times more than the Wabana ores. The company has been mining this ore under peculiar difficulties and expense for months. From the ore deposit to Glencoe station is some six or eight miles. From the mine to the station involves a charge of possibly four dollars a ton for truckage, to which has to be added mining and railway transportation charges. That the company persists in mining ore in the face of these difficulties leads to the belief that the exploiters are encouraged to believe that a regular vein, and not merely a big deposit, may be struck, or that the ore, for some purpose or purposes, is of peculiar value. Abouit ten tons of ore are being shipped daily. For the sake of the county of Inverness, and for the province as well, it is to be hoped that the exploiters will meet daily with encouraging success.

Lately we came across a big pamphlet, big enough almiost to be entitled a book, giving an account of how the province had fared under thirty-four years of liberal government. Possibly, in a sense, it is well we did not see a copy previous to the provincial election, as any strictures made at such a time might have been wrongly construed, and we only refer to part of the contents of the pamphlet at this time, in order that there may be no misunderstanding in reference to legislation affecting the coal industry. As the pamphlet was intended for candidates and stumpers, on the government side, and as it was semi-official any statements in its pages should have been clear, correct and concise. If the statements in reference to coal royalty are correct, then we have been and are laboring under a curious misapprehension. Let us to the pamphlet and hear what it says:
"When the profits of the coal trade showed a material increase, the government required the mining companies to pay a higher rate. The royalty was increased from seven and a half cents to ten cents per ton some years ago and now has been further increased to twelve and a half cents per ton for all operating companies, subject to modification in some cases.
"By an arrangement made between the government and the Dominion Coal Company, Limited, and also between the government and the Acadia Coal Company, the Province receives from these companies not only the increased royalty, but also, in return for the concession of a longer lease, which costs the country nothing-but which, in the opinion of foreign investors gives greater security for their investments in Nova Scotia coal mines-an additional rate of two and a half cents per ton, in all twelve and a half cents per ton of the coal sold by them.
"The amount of royalty secured by the government has, therefore, increased proportionately with the increase of trade. In the case of coal mines generally the rate per ton now collected is 33 per cent more than was formerly paid, and in the cases of the Dominion Coal Company and the Acadia Coal Company, the rate is 66 per cent more."

In the first paragraph it is clearly stated that all operating companies are now paying twelve and a half cents per ton royalty, while in the third paragraph we are told that the increase in royalty is in general 33 per cent and 66 per cent in the case of two companies. The writer of the paragraph either labored under a misapprehension, or fell into error in using the present tense. The whole story simply told is this: When the Dominion Coal Company obtained the privilege of what is known as the long or the straight lease for 100 years, instead of the ordinary twenty year lease with renewals, it consented to pay for the concession, two and a half cents increase per ton royalty for the privilege. In the acts bearing on the charter of the company, a rider was added to the effect that any coal company could have a similar long lease by the payment of two and a half cents additional royalty. At least one company, the Acadia, availed itself of the privilege. All the coal companies, the Dominion and the Acadia included, are now paying the same royalty, of twelve
and a ceiris, and all can, if they choose, claim to get a long, or a straight hundred year lease, less possibly the years that have elapsed since the Dominion Coal Company went into operation. In short. all coal companies are today paying 66 per cent more royalty than thirty-four years ago.

Since the pamphlet was issued, few, if any, of the papers supporting the government keep harping on the high cost of coal and the necessity of governmental action and intervention. Here are extracts which possibly brought them round to a saner view as to prices:
"Laws regulating the price of commodities have long since been acknowledged to be useless. The price off any article at the present day is subject to demand therefor. Coal, the same as any other commodity, will be delivered cheapest to markets of greatest demand.
"It is asserted that the price of coal to Nova Scotia consumers is greater than the price obtained for Nova Scotia coal in the Quebec markets. Admit for a moment that this statement is true.
"Moreover, the local legislature could not fix the price of coal. Trade matters are subject to the regulation of the Canadian parliament, and it could if representation based on facts showed that the price of coal was too high, have removed the duties on foreign coal. When a short time ago an action was brought, alleging conspiracy to keep up the price of coal in Nova Scotia, after a long trial, judgment was given that there was no proof that the company maintained the price of coal to Nova Scotia consumers at a higher rate than they were entitled to.
"The condition of selling cheaper to an outside market, if such be the fact, is not confined to coal alone, but prevails the world over in most products. A barrel of flour is bought today cheaper in Nova Scotia than at the mill in Western Ontario, where it was ground. Even such commodities as daily newspapers are supplied to foreign subscribers for a less sum than to subscribers at home."

The writer of the pamphlet eschewed logic, possibly from the thought that such would be lost on party politicians. He tells us that the government imposed no burdens-presumably did not increase the royalty-when the coal trade was depressed and leaves the inference that only when there was profit in the trade was royalty increased. Well what is one to make of the concluding sentence in the following paragraph:
"There is no evidence in existence indicating that any coal company in Nova Scotia is making more money than it is justly entitled to make, on account of the general advance in wages and of material entering into the cost of production; on the other hand, it is most regrettable that some companies are getting no returns for their investments. It is a well known fact that several of the coal operators assert that they make no profit at all on their coal trade."

However, any little discrepancies may be overlooked in view of the good accomplished in the releasing of many editorial claws from the throats of the operators.

## GRubs ${ }^{\circ}$ by Rambler.

Says Lloyd George, "The only way to win time is not to lose time." Will the apologists for spasmodic workers please ponder. Further, as an incentive to industry he said: "There are rare epochs in the history of the world when in a few raging years the character, the destiny, of the whole race is determined for unknown ages. This is one. The winter wheat is being sown. It is better, it is surer, it is more bountiful in its harvest than when it is sown in the soft spring time. There are many storms to pass through, there are many frosts to endure, before the land brings forth its green promise. But let us not be weary in well-doing, for in due season we shall reap if we faint not."

We live in the fresh air age. When an idea gets hold of some people they ride it to death, and not ignorant people either. I know a doctor who declared that draughts were never the cause of colds, and I have heard a similar thing from laymen, Fudge. I know from experience that draughts are responsible not only for common but heavy colds. Here is some of the buncombe that is written on the subject:

A lack of fresh air is one of the evils which middle-aged and elderly people need to guard against. Circulation becomes enfeebled with years, and chills are easily felt, and so it is thought necessary to keep out all the fresh air, and vitality becomes lower, and the chill that is so much feared is more easily taken. 'May I open the window?' was asked of an old lady who was confined to her room. 'No,' was the answer, ' I'd get cold directly.' 'How do you air the room?' I inquired. 'Oh, open the door.' Yes, and the air that came in had travelled through the house before it reached her, and gathered impurities on its way, and naturally was anything but fresh by the time she breathed it. Do let us be done with a close, stuffy house-open all our doors and windows on a windy day, and get a current of air right through the house, and we shall reap the benefit in our health and spirits. One of the healthiest and best complexioned ladies I know sits in an office with a good fire (when necessary) and her window wide open from the top, works very hard, eats three meals a day and is a vegetarian.'

Now, just what is fresh air? A fresh breeze may be germ laden. Zero air may freeze the little beggars of baccilli and rob one of comfort at the same time.

Said one to me the other day, "As yet you know little or nothing about the terrors of war in Canada. Go to, say, London, for a week and when you see daily on the streets never ending fresh streams of soldiers from the front, limbless, eyeless and armless, then you will begin to realize what war is.". And what he said was the simple truth. Here in Canada we have issued service cards asking men if they are willing to leave their present occupations:
and place themselves at the disposal of, in short, the government. In Britain they are far past that. They are asking men who are employers in various professions and industries how much of their spare time they can devote to war work. The British Minister of Labor, Mr. John Hodge, speaking in London lately said he had been asked to impress upon those who had spare time the necessity of enrolling at once in the voluntary National Service scheme. There might be people who could put in two or three hours a day in the service of the nation, and others, such as retired people, who could give the whole day. Mr. Neville Chamberlain was very anxious that everyone who had a spare moment should fill up a form stating what he could do and how many hours per day he could give. Then it would be his duty to see where he could fit them in. One of the great failures so far as this country was concerned in the early days of the war was our neglect of organization. That had been overcome by the great work of Mr. Lloyd George as Minister of Munitions, and when the history of the war came to be written no one deserved greater notice than the present prime minister. One of the things of which the country should be proud was the manner in which the iron and steel manufacturers of the country had risen to the occasion. We were producing more than 50 per cent more steel than we did before the war. That showed that when the need came upon us we could organize, and his hope was that when the war was over those lessons of organization would not be lost upon us, so that when peace prevailed we might once again take the foremost place in the world as an iron and steel producing country.

Dean Inge, the celebrated English divine, preached lately in London on the existence of evil spirits. "The Miracle of the Gaderene Swine," said the Dean, "is full of difficulty and has long given occasion to the enemy to blaspheme. I hope I shall not greatly offend this congregation by saying frankly that I do not think we are bound as Christians to insist on the historical accuracy of the narrative." He would not follow the example of Mr. Gladstone, who engaged in controversy with Professor Huxley on this subject. The eminent statesman did not, he thought, show his powers to great advantage in the duel.
"But it is impossible to doubt," the Dean continued, "that our Lord believed in the existence of a spiritual power of evil, and wished His disciples to believe in it. It is equally impossible to deny that modern religious and philosophical thought is opposed to this belief." It was a commonplace of philosophers that the problem of evil had never been satisfactorily solved. The Manichaean theory, that God has an enemy, a spiritual power strong enough to maintain a fairly equal warfare against Him, was plausible because it relieved us of the necessity of making God responsible for the evil of the world. Where else were we to look for the source of the horrors which have made the history of Europe hideous since that fatal day of August, 1914? Strong moralists were naturally inclined to this theory. They saw in evil not simply a series of mistakes, a defective good, a harmony not un-
derstood, but something substantial and positivean enemy to be destroyed, not a phantom to be exorcised. A little reflection would suggest that the moral view could not be ultimate, because morality was always striving to destroy the conditions of its own existence. If there were no evil there would be no morality.

There was a mass of supposed evidence for the existence of evil spirits.
In last issue, I think, I advised English clergymen to take a post graduate course in Scottish. I now suggest to the Dean that he take a course in Canadian party politics. If he did then of a certainty he would know a great deal more of the existence and activities of evil spirits than he knows at present. Of course the evil spirits of the Canadian order may not have the wantonly devilish characteristics of their Gadarene brthren but goodness knows in some kinds of evil doing they are not to be matched. Possibly the tastes of the Canadian brand of evil spirits are a little more refined than those of New Testament times. The Gadarene spirits had a preference for swine; those of Canada betray a marked preference for partisan politicians. There they delight to dwell and there, sooth and, sorry to say, they are seemingly made welcome. And it is because of this appreciation of evil spirits and politicians that many reputable men of ability refuse to enter politics as presently existent. If one were to ask "Where can an evil spirit be found?" all that would be necessary would be to point to certain politicians, or conduct him to the editorial room of a strongly partisan paper. What but the proprietorship of an evil spirit could have prompted a well known Halifax daily to publish the following:
"In the House of Assembly yesterday Mr. Donald Maclennan, member for Inverness, gave notice of questions regarding the rumored 'resignation' from his seat in the house, of Mr. Frank Stanfield, Conservative member for Colchester. Mr. Maclennan is apparently anxious to settle once and for all the dispute as to whether or not Mr. Stanfield has actually resigned. That the 'honorable unshrinkable' sent in his resignation to the local Conservative organization is generally believed to be a fact, but that organization has no official connection with the matter.'

A harmless paragraph do you say? Well I think the whole pith of the paragraph is spoiled and rendered contemptible by the word that appears after "honorable." Why should so contemptuous a word be employed? The gentleman referred to has shown himself to be a man of public spirit, no one doubts his business ability and no word of reproach can be uttered against his character, and yet it is sought to expose him to ridicule because he is not of the same political belief as the fellow who wrote the paragraph. It is just the employment of such like adjectives that makes reputable men fight shy of politics.

The incident of the troubling of the waters at the Pool of Bethesda, has given rise to many speculations. There are those who declare that what is said about an angel coming down and troubling the waters should not be in the Testament, and many translators omit it. There is no question that the waters bubbled at frequent intervals, but what
caused them to bubble is the question. Readers in the search for information will read with interest the following in reference to baths at Manchester especially those referring to the "swirling" baths. It is not claimed the water in the baths has medicinal properties but, somehow, there is virtue in it. I give somewhat lengthy extracts from a contribution
by a military correspondent in the Manchester by a mili
Guardian :
In the soldiers' convalescent camp at Manchester there is a place which has come to be known as the Pool of Bethesda because of the cures effected there. The lame, the halt, the blind, the deaf, the dumb, and those suffering from all manner of nervous disorders congregate at this pool. The water used does not even contain any medicinal properties. It comes from the Thirlmere or other of Manchester's reservoirs, and its curative effect is secured by maintaining it at a constant temperate heat, which varies according to the disability it is hoped to relieve and
finally permanently to cure.

This new treatment for our soldiers, which when associated with massage and movements has been found to give good results in limbs disabled by gunshot wounds and in regard to serious nerve troubles,
was introduced to this country from France. Early in January, 1915, a committee of experts was appointed to advise the army medical authorities in the treatment of wounded and invalid soldiers by baths and associated methods at the British health resorts. A representative of the committee, visiting Paris, found in operation there a hydrological method which claimed to have effected some remark-
able cures.

The Manchester installation is designed to treat the large variety of cases of disability which the war has produced. These include neurasthenia, the result of sleepless nights and arduous days, shock in all its forms-tremulous limbs, stammering speech. persistent nightmares, disorders of sensation, paraly-sis,-disordered heart action and heart strain, rheu-
matism and debility following typhoid, dysentery, and malaria; feet and legs bruised by bullets and, pitted by shrapnel; arms and hands with torn nerves and tender scars. The "pool" is used for the treatment of men suffering from shock and heart trouble, and the "whirl" (eau courante) bath is used for frost-bitten and trench feet, painful and contracted scars, and certain forms of paralysis and neuritis following injury, whilst the douche baths are valued for the tonic effect they produce. Local hot baths, arranged in temperature from 50 to 80 degrees (C.) been found to give relief in cases of complicated fracture by promoting absorption of inflammatory products, and electric radiation baths greatly assist the curative process.
There are approximately 4000 convalescent soldiers at Heaton Park, and on an average 170 men pass through the hydrotherapeutic department daily. In the "Bethesda Pool"' 12 men are accommodated at one time. The water in this bath is kept at a temperature of 92 degrees (Fahr.). The pa-
tients stay in the water for about one hour, and after the body has been wiped dry each man reposes on a couch in the rest-room adjoining, and there enjoys the sedative effect of his immersion. He is then eons
veyed by ambulance to his hut, where he takes further rest. The idea of the pool bath (this and the eau courante bath were the first of their kind established by the war office in this country) is that immersion in a large volume of water kept at a temperature below body heat will have a decidedly soothing effect on the nervoas system and restore the heart to its normal action.
The curative effect of this treatment did not, in the early stage of the practice, reach expectations. Some men who had undergone the treatment said that their nerves were steadier, and that for some. hours after the bath they had lost the earlier symptoms of fatigue, but that gradually their troubles returned. The ailments of other soldiers seemed to be untouched. Latterly, however, much better results have been obtained. The physical weakness has in many cases disappeared, and progressive exercises to help on the "strengthening-up" process could be undertaken without delay. But experience has proved that if the best results are to be expected the treatiment must be given in the early stages of the disorder. Excellent results are reported in cases of disordered action of the heart, especially the cases where the heart is beating very rapidly, and some of the patients have been discharged to enter upon a course of graduated physical exercises.
The "whirlpool" bath has given the best results. Not less than 90 per cent of the cases discharged after three weeks' or a month's course have been fit to begin at once their physical training. It is believed that this "whirl bath" has a special action due to the movement of the water, and the hydro massage treatment which follows supplements it curative action.

The clamor as to the excessive price of coal has largely been given up. Probably because people began to realize that high as the price of coal is in the province things might be very much worse. Read this and be grateful:

Weather conditions, intensifying difficulties brought about by the labor shortage, caused a coal famine in parts of London, more particularly in the south, where people could be seen lined up in queues at the coal depots, with handcarts, perambulators, wheelbarrows, baths, and other receptacles for carrying away coal. In one suburb a silk-hatted city man could be seen staggering along with a sack of coal on his shoulders, and well-dressed women drove up in motor-cars to get their supply. Need of food has driven the wild red deer in Somerset from the hills to the lower lands, foxes have been seen in the streets of villages and towns, and seagulls have come foraging in the gardens of suburban homes in Lon-
don.

## SCOTTISH MINERS' WAGES.

Lord Strathelyde, the arbiter in the Scottish miners' claim for an advance in wages, has decided that no alteration can be made at this time beyond the figure fixed by him last September. The men are at present receiving 10s. per day, and they
asked for another 1s a day.


There is a big mining boom on in Cape Breton these days and it is not confined to the exploitation of one mineral alone, but extends to many, coal, iron, magnesite, silicate, lead, copper and even zinc. The boom covers Inverness, Richmond and Cape Breton counties. In Cape Breton county iron and copper are the minerals sought after. At Grand Mira seventeen square miles have been taken out for iron ore. In Richmond, besides copper, lead and allied minerals, iron is being sought for under not only right of search but lease. In Inverness, near Orangedale and River Denys, five square miles are under license for magnesite, nine leases have been taken out for coal, and also about twenty square miles are covered by rights of search. At Skye Glen and mountain rights and leases covering many square miles have been covered for iron, and silicate. It is said the areas containing the silicate are likely to be purchased by New York capitalists. A New York man has obtained rights of search for iron near Whycocomagh, and there is active iron ore exploitation at Glencoe. Inverness is the Nova Scotia Eldorado. Indeed, to use an expressive, if hackneyed phrase, Inverness county, so far as prospecting for minerals of all sorts goes, is having the time of its life. The Record has always maintained that Inverness was possibly the county richest in minerals in Nova Scotia, and our hope is that the search for minerals now being prosecuted, will emphasize our opinion.

The Nova Scotia Steel and Coal Company has taken out rights over five square miles in the vicinity of Orangedale, and are shipping a new mineral, as far as Nova Scotia is concerned, called magne-site-magnesium carbonate-to their plant at Sydney Mines. One of the purposes for which this min eral is used is the lining of the bottom of blast furnaces, but it may have other uses. It is said to be very valuable, and has not hitherto been mined in the province. A fair deposit was found when operations began. At present the mineral is found in patches. It is the intention to sink a few hundred feet in expectation of securing the mineral in larger quantity. Should the sinking not fulfil expectations, trials will be made in other parts of the covered territory, as the mineral shows in several places. Text books on the minerals of the province give no indications of the purposes for which magnesite is employed. We shall endeavor to obtain some information on the subject.

It is reported that the mine at New Campbelton, formerly worked by the Burchells and sold a few years ago to the Harmsworths, ostensibly for the production of coal for their big pulp works in Newfoundland, is to be reopened this summer. The high price of coal and its scarcity are evidently to have an effect in the direction of extended coal mining development.

The trio composing the visible heads of the Greenwood Coal Company, Pictou county, are evidently hustlers and ambitious. Not content with having made terms for the opening up of the Port Hood areas, they have secured at least a half, possibly a controlling, interest in the Mabou mine. The mine was put up at sheriff's sale lately to satisfy a claim of the Eastern Trust Co. and the three said heads of the Greenwood concern, in some way unknown to outsiders, satisfied the claim with concurrence of the proprietor of the mine. The fact that a practical mining man like Malcolm Beaton takes interest in Mabou will have the tendency to draw attention to the possibilities of the mine, for the Record takes it that the Greenwood Coal Company has not acquired Mabou for the purpose of present development, but to induce intending coal operators to look in Mabou direction. Mabou, the Record considers, an excellent proposition. Its great handicap is the lack of proper transportation. It may be possible to make a shipping port, or connect it with the Inverness Railway.

The coal recently discovered at River Denys is four feet eight inches thick. Four feet of this is clean coal, with eight inches of fireclay in the middle of the seam. Some say that the coal is semianthracite, others that it is bituminous. It is to be hoped that it is the latter, as all the anthracites and semi-anthracite coals so far alleged to have been found in Cape Breton have turned out to be-wellfrauds.

According to the Mines Report, the fatal accidents at the coal mines for the fiscal year ending September, 1916, numbered 28. This is a gratifying decrease over the figures for the year preceding when the number was 42 . The report places the number of fatal accidents at 29 , but we deduct the accident to a boy killed while searching for a lost ball with a lighted match in an old slope, and thereby causing an explosion of gas. We cannot place that death in the table of those lost in the cutting and preparation, or production, of coal. Falls of roof were responsible for 11 deaths, while trips and boxes have to be debited with no fewer than thirteen. Four accidents were from out of the ordinary causes.

Though for the calendar year 1916 there was a decrease in shipments of over half a million tons as compared with 1915, curiously for the fiscal year ending September, 1916, there was an increase of some eighty thousand tons.

In 1916 there was thirty-three per cent more coal sold in Nova Scotia than in 1915. This gives indication that there was unusual activity at the big steel plants and other manufacturing industries of the province.

The Dominion Steel Corporation's and the Dominion Coal Company's combined sickness and ac-
cident scheme carried by a handsome majority in the case of the former and by a narrow majority in the case of the latter at the plebiscite held two weeks or so ago-this in spite of the fact that the Compensation Board travelled very far out of it: way, in hinting to the men how they should vote. We have not the slightest hesitation in congratulat ing the workmen of both plants on the results.

The machine workers at Glace Bay voted heavily in favor of the Compensation Act, as against the coal company's combined scheme. This is a verit able instance of every man for himself and not each for each, and each for all. This confirms Burns' dictum that when self interferes with the balance, 'tis rarely well adjusted. The machine shop workers should either have refrained from voting, or have shown greater sympathy for those not in the position they are to pay for insurance and make provision against sickness and death from natural causes. Fie on you, oh fie.

Details of the plebiscite vote demonstrate that the men of New Waterford, whatever some of them may think of the P. W. A., have no use for the U. M. W. of N. S. They gave a rattling large vote for the combined scheme, which was denouñced freely by the U. M. W.'s. They have had all the experience they want of "Sin Fees" no matter what name they go by.

The plebiscite vote in Cape Breton affords proof that the P. W. A. is still on top, though the U. M. W.'s were brazen faced enough to tell the government that they represented a majority of the workers in the C. B. collieries.

There were 544 tons of manganese produced in Nova Scotia last fiscal year. The production of antimony rose from 10,872 tons in 1915 to 14,149 in 1916. There were produced of ammonia sulphate 5121 long tons against 4303 for the preceding year. The production of gold decreased from 7216 to 5121 ounces, due, it is said, to the dry season. There was an increase of about 160,000 tons in the production of limestone and 49,000 tons in that of gypsum. Why should there not have been a royalty on the exported gypsum? Why should coal, iron, gold and antimony be the only minerals from which revenue is derived? No reference is made in the Mines Re-port-in the table of mineral production-to fire clay. We are of opinion that a considerable quantity of fire clay was mined in at least two localities, one in Cape Breton, the other in Pictou county. We cannot say whether the omission is intentional or not.

Even the women workers saved from the recent munitions disaster have taken up employment in the danger zones of another factory, states the minister of munitions. To women's labor is in part due the fact that the number of machine guns available for the use of our troops is now twenty times as great as at the end of the first year of war. Great numbers of women are required in munition works. Application should be made to the nearest employment exchange.

## 'PLAYING THE GAME.

## Advice to Capital and Labor.

The widely known Mr. Tom Fox, in an address lately on Capital and Labor in Manchester, said, among other things worthy of the consideration of employers and employees, in Canada as well as in Britain, "That the present great upheaval had given this country a rude shock. It was now generally admitted that if Germany had gone on quietly developing her industries and commerce for another 25 years as she had done in the past quarter of a century she would have accomplished all she desired without going to war. It was essential, therefore, that we should now take stock carefully of our industrial position. We had been getting too fat, rich and lazy, and instead of being partners in the essential work of contributing towards the life of the nation, capital and labor had developed two separate interests. This must be changed. The very existence of the empire, let alone its prosperity, depended on it. Unhesitatingly he said to the captains of industry that if the workers of the country were expected to put more energy, brain, and initiative into their work, the results of that extra energy, brain and initiative must be secured to them.

To keep our industrial position in the world, Mr. Fox continued, we must not only have an increased output but better organisation in our workshops, a drawing closer together of employer and employee, and an eradication of that jealousy and suspicion which had their roots deep down in the ignorance each had of the other. He suggested that there should be associations of employers, which would do their best to see that all employers "played the game," and associations of workers who, with the co-operation of the employers, would try to induce all workers to do likewise, so that all could work together for the cominon good.

It would be wise, too, if employers set up committees of workers representing each department in order both to give and receive information. Many of the objectionable things that took place in workshops were not due to the heads of those departments, but to unfit people appointed by them. Then if difficulties arose which could not be settled between the commitees and the firms appeal could be made to the associations. The adoption of the canteen system in workshops, giving workers the opportimity to get good, well cooked food at cost prices, would recoup employers many times over by the increased efficiency of the work people."

## THE PRAYERS OF SOLDIERS.

Rev. George E. Darlaston, M.A., of Crouch-end, who recently returned from France after some months of work with the troops, has an interesting article on "Religion at the Front" in a British periodical. Mr. Darlaston says that many things at the Front justify the epithet "godless," but he was surprised to find how frequently men felt that God was with them. The more typical movement of the soldier's mind (writes Mr. Darlaston) has been to wards something in contrast with all that he sees, and even in the inidst of what he himself calls hell,
he finds God. I will not attempt to explain it. I will keep to the concrete. I was sitting at a table one night, drinking coffec and listening to the men talking of the fearful experience out of which they had just come. (Ine man, evidently respected by the rest, said, "I bet you that there is not a man who was in Delville Wood that night who is an atheist." I said, "No?" I did not say that I thought Delville Wood was enough to make any man an atheist; for the minn themselves had described it as hell, which surely is the denial of God. "Why do you think that?" I asked. He replied, "There wasn't a man who diln t pray tliat night." "No," said another, a Roman Catholic, "we all said our prayers that night." "Well?" I said, wanting him to go on. all the difference.," when a man does pray ,it makes
In diiferent ways
uaily. At first, when I found the same idea continjoin their regiments either new drafts or wounded, I feared that I should not be able to help them on their hami way except with ordinary kindness and the good wishes which cost so little and are given so easily. Not once, but a dozen times, I found that prayer made all the difference between nervous fear and quiet, steady self-possession.
And the way of the chaplains witnessed to the same thing. Prayer was the burden of many an address to which I listened. They bade men pray and taught them to pray, made them pray aloud and together. And I came to the conclusion that these men knew their business. The problems of prayer are never solved, but the fact of prayer is never in vain. Men out there do find that God is nigh when they call upon Him, that, as the Psalmist said. He does not let a man down who trusts Him. "He that trusteth in the Lord shall never be confounded." Men recognise-how can they do otherwise? - that they may not be delivered, that they may be killed, but they also recognise that in deliverance or in death God is near them.
I do not mean to convey the impression that the army is a very pious institution, filled with praying men, Men will pray in the moment of danger and cease immediately the danger is over; the praye may be crude, and nothing more than a fearful cry for deliverance. What the content of his prayer may be, depends on the quality of a man and on the stage of his spiritual development. I know one man personally who has left proof that his last prayers were not for himself but for his people at
home. Mr.
oldiers Darlaston adds that he wondered whether soldiers did not want a warrior God of the Old he discoverere more than a suffering Son of Man; but in the hearts of men concerned in was still a place laston found it was easier to read the Beatir. Darthe front than in a church at home. Beatitudes at

Many young men in the communes of the Campine, near Antwerp, are hiding in the woods and moors to capture them the Germans have now taken to arresting the aged notables in the villages and casting them into prison as hostages for the runaways.

## PREACHER, POET, BARBER.

Rev. Lanchlan MacLean Watt, the Scottish Presbyterian poet-preacher, who has been serving as a chaplain with the forces, found his duties of a very miscellaneous nature, but he added to them on one occasion the duties of regimental barber. In one of the hospital tents he found the orderlies so busy that the wounded soldiers tried to shave themselves. They did not find it easy, and Mr. Watt saw that one had cut himself badly. Promptly he took the razor and completed the job. He was urged to perform the same ap-ration for some of the others next day. One, wounded in the chest, was worrying about his bristling beard, but the chaplain's Gillette swept away the cause of his worry. Then half a dozen others requisitioned its services. "While I was shaving one poor lad who could scarcely breathe," says Mr. Watt, "he gasped with a smile, 'This would make a fine thing for the papers or the movies.' And a Scottish boy said, 'I'll tell oor man when I get hame. I ne'er was shaved by a parish minister afore and I dinna expect to be again." The hospital surgeon who came along while Mr. Watt was barbering the men said, with a laugh, "It's not far from a parson's job, for cleanliness is next to Godliness, of course."

## WHEN TWO ARE NOT BETTER THAN ONE.

Miss Lilian Barker, superintendent of women munition workers at Woolwich, claimed, in an address at the International Franchise Club, that the mingling of middie-class and working-class women at Woolwich had ievelled up and not levelled down. It would be absurd, she said, to demand from the factory girl and boy the same kind of humor as in other classes. Her policy was to encourage the girls to have "young men." To one of her assistants, who had asked at what point in open courtship it was advisable to interfere, Miss Barker replied. "When you see a man with one arm round the girl, look the other way; but if he's got both arms round it's time to interfere." At Woolwich a woman over twenty can earn about $£ 210$ s. a week, and many under that age reach $£ 2$.

## AGAIN THE DARDANELLES.

The "Frankfurter Zeitung" announces that according to a statement by the "Orient Korrespondenz" of Budapest, the Sofia "Dnevnik" reports the following on good authority :
"In spite of the fact that Greece has expressed her compliance with the demands contained in the Entente ultimatum, Italy is proceeding with the equipment of her new Eastern expedition. This expedition, however, is not to be directed against Greece, but against Turkey. How this can be so is not yet clear, but it is considered that a new attack on the Dardanelles is by no means impossible, as England and France have both given their consent to the scheme.

Statistics compiled in the Court of Domestic Relations, Chicago, show that out of 2914 cases of trouble between husbands and wives, 95 per cent were due to drink.

## NUTS FOR ANTI-PROHIBITIONISTS.

In Torquay, England, the United Temperance Council secured 6337 signatures to a petition asking for licensed houses to be closed from $9 \mathrm{p} . \mathrm{m}$. to 9 a $m$., and that women should not be supplied before 12 noon or after $6 \mathrm{p} . \mathrm{m}$. The magistrates unanimously endorsed the petition, but were unable to receive or act upon it owing to the veto of the Chief Constable.

A striking decrease in the number of convictions for drunkenness is shown by the returns for sixteen English cities and county boroughs with populations over 200,000. In 1913 the total was 107,316; in 1914, 106,297; in 1915, 80,091; in 1916, only 46,638. In London the figures for 1913 were 65,488; for 1916, 29,453 . In Liverpool the figures were 14,894 in 1913 , and 5826 in 1916. In Birmingham a decrease was from 47,604 to 1332. Manchester shows a decline from 7699 in 1913 to 2631 in 1916. The improvement is attributed chiefly to the restrictions in the sale and consumption of drink.

The Lord Mayor of Liverpool, speaking at the annual meeting of the Liverpool Diocesan Branch of the Church of England Temperance Society in the Liverpool Town Hall, said that whether as a publicist, a city councillor, or, if he might claim to be so, a captain of industry, he found himself constantly up against the serious obstacle of intemperance. In the solution of the intemperance problem centred nine-tenths of the problems of the state. The Bishop of Liverpool said that he would forbid the sale of any kind of alcoholic drink to women except in cases of sickness. That would be one law for the women and another for the men; but he thought the abnormal times justified the restriction. Grocers' licences should be abolished, because they were working as much harm among well-to-do women as publichouses were doing among the poor. He pleaded for more sympathetic temperance education for the young, and for the use of personal influence, along the lines of the noble example set by the king.

Tests recently conducted by the Bavarian minister of war show that alcohol has a serious effect on marksmanship. The tests were earried out by twenty men on twenty days with over 80,000 shots. As the effect of the consumption of 40 grammes of alcohol, equivalent to about one and three-quarter pints of beer, marksmanship went down 3 per cent, and in some cases 8,10 or even 12 per cent. Strangely enough, the men were confident that they were shooting better after the liquor. Its effects were most perceptible half an hour after taking the liquor. Admiral Jellicoe has stated that in the British fleet the small quantity of rum given in the grog ration reduces the number of hits made by men at the guns by 30 per cent.

The greater part of the winter number of The National Temperance Quarterly is given up to the discussion of temperance work in the army, and practical methods for preventing the increase of drunkenness among soldiers. All temperance work-
ers ought to see it. Emphatic protests against the rum ration, and pleas for the safeguarding of troops from Canada and Australia are included, and some very striking facts are given. In one regiment, it is said, all the courts-martial on officers in nine months were for drunkenness. A county director, with $30 \mathrm{~V} . \mathrm{A}$. D. hospitals under his control, finds the only difficulty with the men to be drink, "which civilians will give them." Whiskey, it is stated, can be purchased at expeditionary force canteens if a dozen bottles are taken at a time.

## READING BY EAR.

An invention by which the blind are enabled to read type by ear was shown to the Rontgen Society by Dr. Fournier d'Albe, Physicist to the Board of Inventions and Research. The printed sheet is passed over a slab with an aperture upon which is projected a beam of light from an illuminated siren disc, and by means of selenium exposed to the light reflected from the type, sounds which vary with the shape of each letter are carried by telephone to the ear.

## NEITHER FREE TRADER NOR PROTECTIONIST

Mr. John Hodge, British minister of labor, pointed out, at Manchester, that as a result of the war fifteen millions had been expended on new plant in the iron and steel trade. "I don't care," he added, "whether it is by tariffs, by prohibition bounty, or any other method, the plant must be utilised. I am not going to have my trade ruined by Cobdenite doctrines.," Mr. Hodge is secretary of the Steel Workers' Union.

## THE DOG GOT HOIME.

One of the inmates of the quarantine premises belonging to the Battersea Dogs' Home is a fox terrier, the companion of General Townshend through the siege of Kut. The full story of how the dog and his owner came to be parted, and how he got home, has yet to be told.

## WILL HE GET IT?

A Dusseldorf newspaper says that the University of Stambul has nominated the Kaiser for the Nobel peace prize!

Sir George Askwith is discussing with members of the Employers' Federation and the Trade Unions, a proposed new procedure under which disputes relating to wages, etc., will be dealt with on national lines instead of local. Apparently the intention is to have all important disputes negotiated upon in London.

A French soldier's wife was sentenced to three months' imprisonment for harboring her husband, a deserter. She appealed, and the conviction was quashed, on the ground that no law permits a wife to refuse admission and residence to her husband, and it would be asking a sacrifice beyond a wife's powers to require her to denounce her husband.

## A CALL TO SERVICE.

We have entered upon a fateful year for Canada and the Impire. We are at the crisis of the war, and success or failure depends upon the concentrated effort we, as a people, are prepared to put into the great struggle. This places a personal responsibility upon every man and woman in Nova Scotia.

During the past year we have enjoyed material comfort and prosperity. Our sacrifices have been as dust in the balance compared with the sufferings of those who have passed through the actual furnace of war. In beginning the new year shall we not dedicate ourselves, as never besore, to the service of our country? If we enjoy the priceless privileges of youth and health, shall we not answer the call that comes to us from the far off fields of France, where our sons are fighting for us the battles of liberty, justice, and truth? If our duty lies at home, shall we not highly resolve to devote our time, our means, and our strength to some patriotic work which is essential to the winning of the war? The people of our province have already given splendid proof of their courage and patriotism. Let us now show equal readiness to answer the call to service and sacrifice.

Conscious of the righteousness of our cause, let us face the coming year with undaunted courage, determined. that there shall be no wavering until victory secures a lasting peace.

## G. S. CAMMPBELL,

 Director of National Service.Halifax, N. S., 1st January, 1917.

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## Synopsis of Coal Mines Regulations,

$\mathrm{C}^{\circ}$OAL mining rights of the Dominion, in Manitoba, Saskatchewan aud Alberta, the Yukon Territory, the North-West Territories and in a portion of the province of British Columbia, may be leased for a term of twenty-one years renewal for a further term of 21 years at an annual rental of $\$ 1$ an acre. Not more than 2560 acres will be leased to one applicant.

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

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

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

The person operating the mine shall furnish the Agent with sworn returns acconnting for the full quantity of merchantable coal minea and pay the royalty therenn If the coal mining rights ate not being operated, such returns should be furnished at least once a year
The lease will include the coal mining rights only, rescinded by Ohap. 27 of 4.5 George V. assented to 12th June, 1914
For full information application should be made to the Secretary of the Department of the Interior, Ottawa, or to any Agent or Sub-Agent
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W. W. CORY.

Deputy Minister of the Iuterior
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Recent Publications:
Building and ornamental stones of Canada, (Quebec), Vol. III, Report on, by W. A. Parks, Ph. D.
The Bituminous Sands of Northern Alberta, Report on, by S. C, Ells, M. E.
Peat, lignite, and coal; their value as fuels for the production of gas and puwer in the by-product recovery producer, Report on, by B. F. Haanel, B. Sc.
The petroleum and natural gas resources of Canada
Vols. I \& II. by F. G. Clapp, M. A. and others.
Electro-plating with cobalt, Report on, by H. T. Kalmus, Ph. U.
The Mines Branch maintains the following laboratories in wl ich investigations are made with a view to assisting $\ln$ the developing of the general mining in dustries of Canada :- Fuel Testing Laboratory, OreDressing Laboratory, Chemical Laboratory, Ceramic Laboratory, Structural Materials Laboratory.
Application for reports and particulars relative to having investigations made in the several laboratories should be addressed to The Director, Mines Branch, Department of Mines, Ottawa.

## R. G. McConnell, Deputy Minister. Geological Survey.

Recent Publications:
Summary Report of the Geological Survey for the Calendar Year 1915.

Memuir 20. Gold fields of Nova Scotia, by Wyat Malcolm.

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

Memoir 59. Coal fields and coal resources of Canada, by D. B. Dowling.
Memorr 60. Arisaig-Antigonish district of Novo Scotia, by M. Y. Williams.

MEMOIR 78. Wabava iron ore of Newfoundland, ty A, O. Hayes.

MÁP 150A. Ponhook Lake Sheet, Nova Scotia. Appications for reports should be addressed tc the Director, Geologica Survey, Ottawa.

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## Concerning the 'Record'

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

In 1898 the name was changed to the Maritime Mining Record, in order to express more distinctly the place it was intended to occupy. Since then, till now, its pages have been devoted chiefly to coal mining, which is the staple industry in Nova Scotia. With the growth of the trade it has grown in influence; and is now considered the one reliable anthority on all matters connected with the coal trade.


## MARITIME MINING RECORD

## ISSUED ON SECOND AND FOURTH WEDNESDAY MONTHLY.



The organ of the rapidly expanding Coal Trade of the Maritime Provinces

It covers the entire field, and that adequately.

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