

Shales Pictou Co. boom p. 8 & 10. N.B. shales to be worked by Britain  
Magnetite in N.S. p. 11-14  
Geological Survey

# MARITIME MINING RECORD.

APRIL 24, 1918.

## DOMINION COAL COMPANY LIMITED.

OUTPUT:—5,000,000 tons yearly.

Miners and Shippers of the Celebrated

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“SPRINCHILL” Coal for Steam, Gas, and Household use.

Screened, Run of Mine, and slack.

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

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*7000 ton Steamers Loaded in 7 hours.*

Special facilities for loading and prompt despatch given to sailing vessels and small craft. Box Car Loaders for shipments to inland points. Discharging Plants at Montreal, P. Q., Three Rivers, P. Q., Quebec, St. John, N. B. and Halifax, N. S., Capacity up to 1000 tons per Hour.



**BUNKER COAL.** The Dominion Coal Co. has unsurpassed facilities for Bunkering Ocean going steamers the year round. Steamers of any size promptly loaded and bunkered.

**IMPROVED SCREENING FACILITIES** at the Collieries for the production of Lump Coal of superior quality for Domestic trade and Household Use.

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Unexcelled for STEAM Purposes.

Popular for DOMESTIC use.

Manufacturing, Steamship, and Railway  
Companies give it high endorsements.

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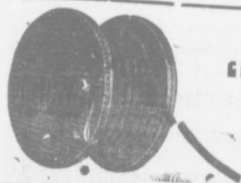
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Ladle lining etc.

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

**Screened, Run-of-Mine Slack,**

—First Class both for Domestic and Steam Purposes.—

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

Apply to Inverness Railway and Coal Company Inverness,  
Cape Breton J. McGILLIVRAY, General Manager.

INVERNESS RY. & COAL CO'Y.

Time Table No. 35. Taking effect  
12.01 June 10th., 1917.

SOUTHBOUND Superior Dir.	STATIONS.	NORTHBOUND Inferior Dir.
436.		437.
A. M.		P. M.
10 48		3 40
10 55	POINT TUPPER	3 46
10 59	INVERNESS JUTE	3 50
10 12	PORT HAWKESBURY	3 54
10 07	PORT HASTINGS	4 03
9 57	TRLOY	4 09
9 44	CRIBBINSHI	4 20
9 37	CHAIGMOIRE	4 32
9 16	JUDIQUE	4 46
8 55	MARYVILLE	4 59
8 40		5 13
8 30	PORT HOOD	5 28
7 50	GLENSIDE	5 38
7 40	MAROU	5 48
7 36	OLENDYRE	6 00
7 12	BLACK BIVERT	6 18
6 55	STRATHLAIN	6 35
A. M.	INVERNESS	7 05
		P. M.

# MARITIME COAL, RAILWAY, & POWER CO.

Miners and shippers of

**CHIGNECTO**  
—AND—  
**JOGGINS.**

High Grade  
**STEAM**  
AND  
Domestic

**COAL.**

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Power Plant, CHIGNECTO, N. S.

R. J. BELL, General Manager, JOGGINS, N. S.



**Manufacturers**  
of  
**Wire Cloth**  
and  
**COAL SCREENS**  
in all Strengths.  
Double Crimped  
Process.

WE SPECIALIZE IN  
ORNAMENTAL IRON AND WIRE WORK.  
**Jail and Prison Construction.**  
"Have you an Up-to-Date Lock-Up in your District."  
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Dep. Halifax	7.45 a. m.
Arr. Montreal	10.15 a. m. following day.
Dep. Montreal	6.40 p. m.
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**'XTERRA'**

**COLLIERY LAMP OIL**

For Alarant, Massey's, Deflector, or Closed Lamp.

PURE WHITE FLAME.

**E. WOLASTON,**

Sole Representatives for Canada, **AUSTEN BROS**

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3.00 p. m.  
7.40 p. m. following day.

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We manufacture a complete line of Tools for the Coal Mine,  
the Plaster Mine and the Lumberman.

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## OUR PRODUCTS:

Coal Boring Machines.	Steel Pit Hames.	Frogs.
Stone Boring Machines.	Screens.	Spikes.
Batchot Boring Machines.	Light and Heavy Forgings.	Bolts.
Breast Augers.	CASTINGS.	Mine Cars.
Tamp Bars.	Track Tools.	Surface Cars.
Spike Bars.	Bark Peelers.	Dump Cars.
Machine Picks.	Road Makers Axes and	Car Irons.
Picks.	Chisels.	Draw Bars.
Needles.	Rope Swivels and Cones.	Hitchings.
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All Our Tools are built on practicable lines, and guaranteed to give satisfaction.

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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 authority on all matters connected with the coal trade.

# MARITIME MINING RECORD

Vol. 20

Stellarton, N. S., April 24th., 1918

No. 20

## THE BERLIN OF TODAY.

(Christian World).

Never at any time has Berlin been so noisy as London or Paris, but such noise as there was has been greatly modified. Added to the disappearance of horse, bus, and motor traffic there is a marked diminution of human life on the streets. There are points where at certain hours of the day there is much brisk going and coming, with loud clanging of tramcar bells, but these points are few, and have no influence on the staid and rather sad-looking streams of people, mostly women and children, in all other parts of the city. You are early struck with the prevailing shabbiness of the people's clothes. For nearly a year past clothes can only have been had by card, and for new articles of clothing old articles, in a number of cases, must be given up. This does not encourage extravagance in wearing-apparel. Men's shirts and collars and other lingerie, so far as it is visible, seem grey, ill-washed, and starchless. There is little soap that is reliable, and long ago starch was voted as an unnecessary luxury. Boots and shoes have greatly suffered in appearance. The clatter of wooden soles may be heard everywhere, and boot uppers, especially in boots worn by the poorer classes, are now invariably made of paper compositions. One sees in the shop windows a large variety of articles of clothing made of paper and nettle fibre. German newspapers are proud of the perfection which has been reached in the use of paper as a textile, but the views of users of this material seem to point to its unsatisfactoriness, both as regards appearance and as regards durability. An amusing account recently appeared in Vorwaerts, where a working man describes his efforts to divest himself of his paper shirt after it had been soaked with rain. It finally came off in patches, and the fragments were sent to the enterprising draper who had praised the garment as proof against every stress of wear and weather. An interesting institution founded in recent weeks has been the municipal cobbling shops, where the Berlin citizen may have his shoes patched with substitute leather, and the soles riveted with patent pieces of hard stuff warranted not to wear with decent usage. The prices are high, but what can one expect in face of that inexorable British blockade?

Travellers, Berliners themselves, and their newspapers are all agreed that the courtesies and amenities of life have greatly fallen into desuetude. Never at any time remarkable for their breeding, the Berliners, men and women, are reported to have become irritable and cantankerous, perverse and uncertain in temper, rude and brutal in their bearing one towards the other. Press writers describe the reluctance displayed by men in rising to give their seats to women, even to old women and women with

babies. It makes the picture no better to learn that they show an alacrity to give their seats to a young girl, especially if she be pretty. Another writer declares that he never makes a trip in the electric railway or in a tramcar without an accompaniment of strife between the conductors and passengers. It is not an uncommon thing to see the lady passenger assault the lady conductor for violence of word or demeanour. It is the same in the shops. The shop-keeper and his assistants know that the consumer is now at his mercy, and, as a writer in the Berliner Tageblatt points out, these people are determined to revenge themselves for former years of enforced subservency. This is a perfectly true touch, and fits in with all we have recently learnt of the German character, both in peace and war. Baroness von Bunsen, a well known lady of Berlin society pointed out in a popular weekly that she found the manners of the upper classes affected in the same evil way. Men speak of their wives without any of the deference once practised. Women treat their children with a callousness and lack of understanding which she describes as deplorable. Another writer draws attention to the increasing viciousness of children, attributing it in large measure to the example set them by their parents. In the first half of 1914 over 12,000 children were punished by the juvenile courts; in the first half of 1917 no less than 23,000.

## SOME TREES.

The number of trees annually cut down for the manufacture of wood pulp to supply the world's demand for paper could not be fewer than from 50 to 60 millions, it was stated in a lecture at the School of Economics. In order to supply the material to produce an issue of a daily paper from 150 to 300 trees might be required. Ontario, in providing settlement for discharged soldiers, is setting up a paper manufacturing plant for the utilization of timber as the ground is cleared.

## MINERS CON AND YET PRO.

Miners in South and North Wales decided, by majorities of 1,614 and 1,795 votes respectively, against the "combing out" proposal of the Government. Lancashire and Cheshire miners gave a majority of 15,519 against the scheme, and Cumberland 730 against. Durham miners, on the other hand, have shown, by a majority of 6,398 votes, that they are in favour of the scheme, and Northumberland miners also support it.

**MARITIME MINING RECORD.**

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

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

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

Subscription \$1.00 a Year. Single copies 5 cents

**R. DRUMMOND, PUBLISHER.**

STELLARTON, N. S.

April 24, 1918

**THE FOUR EPOCHS IN THE INDUSTRIAL EXPANSION OF THE PROVINCE.**

Were one expected to confine his survey to mineral production in the province only, he might be forced to say of the chief mining industry that three events occurred, which were chief factors in its progress. These three events, in the order of time, though mayhap not in the order of importance, were:—

1st. The acquirement by London Capitalists—later to form themselves into a corporation known for about three quarters of a century, as the General Mining Association—of the royalty bearing, or in other words, of all the then known more important minerals of the province;

2nd. The breaking up of the monopoly, some thirty years afterwards, and the securing to the province of all the minerals not reserved; and

3rd. The advent of the Whitney Syndicate, or Dominion Coal Coy., Limited, in 1893 by which, without important exception, all the coal mines in the Southern portion of Cape Breton County, came under one control.

A short reference will be made to first of these events. The second and third will be included in Chapters under the heading, "The Four Outstanding Epochs in the Industrial Expansion of the Province," which in order of time are:

1st. The breaking up of the G. M. A. monopoly;

2nd. The advent of the Dominion Coal;

3rd. The securing of the Wabana ores of the Nova Scotia Steel and Coal Co., Ltd.;

4th. The establishment of Steel Works at Sydney and Sydney Mines.

It turned out a rather fortunate affair for Nova Scotia, that the Duke of York, brother of George IV, had a weakness for jewelry and a fondness for luxurious living. While a lad his tutors evidently had not inculcated the real pleasures of the simple life. The duke's tastes were of the expensive order, and in comparison, his purse was slender. The consequence was that he plunged into debt to—among many others—his jewelers. Though he was the King's brother, the jewelers did not consider his patronage as fully sufficient to offset the value of the jewels, so they—as plebians at times will—kept dunning his Highness for the debt. Getting tired of their importunity, he applied to his brother for

help. This was given readily, the more ungrudgingly because the donation had cost him nothing in the first place. The gift took the shape of a grant of all the minerals in Nova Scotia to the Duke. He, after consideration, came to the conclusion that he was not eligible for commercial pursuits, and so transferred his grant to his jewelers. The bill he had run up with his jewelers must have been of formidable proportions, or else small value was at that time attached to the minerals, which are now considered of immense value to Nova Scotia. The Duke, of course, did very wrong in going so deeply into debt, and yet the province is ready to condone his folly, in view of the excellent results which followed the trading off of his debts due to his goldsmiths, for his unwrought copper mines in Nova Scotia, for it was copper, so it is declared, the jewelers looked upon as the principal asset in the grant.

**THE AIMS OF THE BRITISH LABOR PARTY**

From an article contributed by Hon. Arthur Henderson, M. P., we cull the following. According to Mr. Henderson, the party will be independent in politics and will confine its membership to those whose labor is termed manual. Labor has indeed made great strides of late, but it mak take time and labor to convince the middle classes that all their sympathies should be in the direction of the Labor party:

By the adoption of its new constitution the Labour Party has taken the first step towards the regeneration of public life. This may seem an unduly large claim to make regarding changes in the organization of a single political party. But the chief significance of these changes lies in the effect they are calculated to have upon both the organized working-class movement and upon the great body of people who own allegiance to no party.

Political issues are largely decided by the mass of voters to whom no party label can be attached. They cause the pendulum to swing. They adjudicate upon the programmes of the rival parties. They constitute a body of essentially conservative opinion which is not adverse to change if change can be justified, but which does not accept innovations, merely because they are new. In close association with these non-party voters there is another class—smaller, but almost equally important in view of the influence they bring to bear upon national policy—the class which inherits the traditions of Radical Nonconformity, whose sturdy commonsense and practical idealism are near akin to the best qualities of the working-class movement as we know it to-day.

Between these classes and the organized wage-earners there has not hitherto been much common ground. They do not understand one another, and are somewhat prone to criticise one another's ideals. Many middle-class people have in the past stood aloof from the Labour movement—partly, indeed, because they have no direct relationship with it, but also because they lacked sympathy with what they believed to be the excessive class-consciousness of

the working-man. That this class-consciousness was one of the most potent influences which helped to shape the modern industrial movement is a fact that cannot be denied, but it has undoubtedly caused many middle-class people—the shopkeeping classes, the professional classes, ministers, doctors, teachers, clerks, and the like—to feel that the organized workers pursued a policy in opposition to what these classes believed to be the true interests of the nation as a whole. It is difficult to convince them that working-class policy, both industrial and political, has been strictly of a defensive character. The workers have organized themselves in trade unions, have created their own political party, and have set the great co-operative movement on foot primarily for their own protection against the rapacity of other classes.

In fairness to the working-class movement, however, it must also be acknowledged that the reforms it has endeavoured to promote have been of a general social character. From the very beginning of its history the Labour Party has claimed to be something more than the party of a class. It has not concerned itself merely with the political aspects of industrial questions, with hours of labour, rates of wages, and conditions of employment. By common consent it has infused into contemporary politics a quality of idealism and generous feeling for the oppressed and overburdened masses. It has, of course, sought to protect the workers from exploitation, but its policy has always had a wider application. It covers the whole field of social life. Both in national and in international affairs it has always taken a large view, and has consistently refused to treat any problem from the point of view of class interest alone. Its criticism of existing institutions springs out of a conception of society which is fundamentally different from that entertained by the orthodox parties. But that conception does, at any rate, embody the idea of public right as opposed to the idea of class privilege. It puts the rights of the community as a whole above the claims of any class. It is pledged to resist the exploitation of one section of the community by another, and proclaims the possibility of a new social order, international in its scope, which does not involve, as the present system does, the oppression of any class; the subjugation of either sex, or the subjugation of any nation.

In harmony with this broad and generous conception of social reconstruction, the Labour Party has adopted a scheme of reorganization which is deliberately designed to unite all classes in a genuine national party. The new scheme, which was adopted with practical unanimity at a representative national conference held in London recently, makes it possible for every man and woman dependent upon their own exertions, either of hand or brain, for their means of livelihood to join the party. It seeks to unite them on the basis of a common interest in good government and a common desire to promote the welfare of all the people. The party invite the men and women who have hitherto stood aloof from the Labour movement to realize that their interests as citizens and as workers are identical with those of the manual wage-earning class. It opens its doors to those who do not belong to the latter class, because the new order of society which it de-

sires to see established cannot be built without their aid. It believes that the trading classes, the professional classes—in short, all those who live on an income of their own earning—like the mass of working people, require the protection of a strongly organized political party which will not direct national policy according to the wishes of the possessing classes, but will seek to promote the general welfare.

With the details of the party programme I may have an opportunity to deal more fully in a later article. Here I am anxious to emphasize the fact that neither the constitution nor the policy of the party is inspired by class feeling. What is aimed at is the establishment of a real national party pledged to promote the political, social, and economic emancipation of the whole people, and to create a new social order passed upon co-operation and mutual service rather than upon competition and ruthless individualism. In our view, the system of capitalist production which obtained in pre-war days, in which were bred the monstrous antagonisms that tore asunder the society of nations, has been finally discredited and destroyed by the war itself. The system cannot be restored. In its place we have to set up a political and economic system based upon a deliberately planned co-operation in production and distribution from which the profiteering element will be progressively eliminated, and under which every worker will be the servant of the community, and of the community alone.

In the effort to reconstruct society on these lines, what are called the middle classes are as much concerned as the manual wage-earners.

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## - Rubs by Rambler. -

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It looks, at the present time, as if Pictou County Oil Shales were again coming into their own. For land containing shales there is at present an unusually active quest. A Halifax business man of high standing is inquiring into the possibilities of Pictou County Shales, and has brought an Oil Shale expert from the United States to look over the ground. He, in company with Deputy Inspector Gray last week visited the districts said to be underlain with Shales. Whether further action will be taken, will depend on two things; first the quality, and second the possibility of securing ground not already covered, or ground covered at a reasonable price. Mr. Walter McNeil, of New Glasgow, has secured right of search for Shale, immediately west of the Acadia Coal Co's property at Stellarton. From this it would appear that there is a possibility of there being a boom in Shale. Besides these two, other parties have secured rights on twenty square miles on the east side of the East River. I trust that holders of Shale lands, will not put too high a value on their properties, and thereby discourage those who desire to do a legitimate business.

\* \* \* \* \*

Attorney General Daniels is showing style these days. For a while he was tried in the furnace



and with the beneficial results said to attend that sort of treatment. He had the courage the other day to tell a delegation, who came, I was going to say interceding, but C. B. delegates, as a rule, do not beg, they demand. So I will say who came demanding the "closed shop," and—more. This delegation wanted the government to command Mine and other officials to be at the beck and bow of labor unions. The Atty.-General looked grave, grave—and who other than an official of a trade union would not,—but I would not say he, at the same time looked sorrowful, indeed after he had consulted Bourinot, Kent and Lord Halesbury and some other authorities, he briskly told the delegation that to grant their request would be unconstitutional. I hope this pronouncement came to the ears of the Department of Mines, who, at times, grant requests irrespective of whether they are constitutional or not. The Herald representative who endorses every request so long as it comes from an autocratic labor official has this to say of the delegation and its requests:

The principal reason for the coming of the committee was in an endeavor to secure an act which would make the recognition of labor unions compulsory upon employers. In this desire they are to be disappointed, for the attorney-general, after an examination of the proposed act, has declared it to be unconstitutional.

After a quite lengthy preamble the proposed bill provides: "Whenever any dispute shall arise between the employer and his employees in respect to any matter of wages, hours of toil, working conditions, discrimination against workmen, or any matter or thing affecting the relations between employer and employees, and a committee is regularly appointed by the said employees to adjust the matter of difference or dispute with the said employer, it shall be the duty of the said employer to meet the said committee and to hear the matter of difference or dispute.

"Any committee regularly appointed as above set out shall, by notice in writing delivered to the employer, advise the said employer of the appointment of the said committee and of the matter or thing which the said committee is authorized to adjust with the said employer, and in the same notice shall demand a hearing of the said employer within twenty-four hours.

"If, after twenty-four hours' notice duly given as above set forth, the said employer neglects or refuses, without reasonable excuse, to so meet the said committee and hear the said matter or thing relating to the said difference or dispute, the said employer so neglecting or refusing shall be liable to a penalty of not less than one hundred dollars or more than one thousand dollars for every day that he, the said employer, so neglects or refuses to meet the said committee as aforesaid."

### SCOTIA

A Montreal despatch says:—The new slope which Nova Scotia Steel and Coal Company is driving into its iron ore holdings at Wabana will have a capacity of 1,000,000 tons a year and should

be completed by January next. The maximum tonnage mined by the company to date was 224,000 tons in 1916.

If the full capacity of the new ore plant were utilized and the ore treated by the company, the result would be 500,000 tons of finished product. Hayden, Stone & Company, heading the American group which is now dominant in Scotia's affairs, points out in this connection that the U. S. Steel Corporation's operating profit per ton of finished product has averaged \$14.40 over the last six years. Continuing, they say:

"If we assume that Nova Scotia Steel could make a profit of \$10 per ton on its finished product, this would mean total profit of \$5,000,000 to which the company might look forward. To be sure, it has not now the capacity to turn out this amount of finished product, but a plant somewhat more commensurate with the ore deposit is under consideration."

### THE EMPLOYEES COMMITTEES ACT.

The following is the substance of the Act introduced by Mr. Cameron of C. B.

This Act shall apply and be binding upon all employers operating quarries, mills, factories, docks and ships within the Province of Nova Scotia.

When any Employer operates more than one mine, quarry, mill, factory, dock or ship, the employees employed at or on each separate mine, quarry, mill, factory, dock or ship, may appoint a Committee as is by this Act provided without the vote of the other mines, quarries, mills, factories, docks or ships operated by the same Employer.

Whenever any dispute or difference shall arise between any Employer and his employees in respect to any matter of wages, hours of toil, discrimination against workmen or any matter or thing affecting the relations between Employer and Employees and a committee is regularly appointed by the said employees to adjust the matter of difference or dispute with the said Employer it shall be the duty of the said Employer to meet the said Committee and to hear the matter of difference or dispute.

Any Committee regularly appointed as above set out shall by notice in writing delivered to the Employer advise the said Employer of the appointment of the said Committee and of the matter or thing which the said Committee is authorized to adjust with the said Employer and in the same notice shall demand a hearing of the said Employer within twenty-four hours.

If after twenty-four hours notice duly given as above set forth the said Employer neglects or refuses without reasonable excuse to so meet the said Committee and hear the said matter or thing relating to the said difference or dispute the said Employer so neglecting or refusing shall be liable to a penalty of not less than One Hundred Dollars or more than One Thousand Dollars for every day that he the said Employer so neglects or refuses to meet the said Committee as aforesaid.

## AROUND THE COLLIERIES

A deputation from Glace Bay, consisting at least in part of Storekeepers, waited on the government a few days ago and asked that sub-section 2 be struck out. It seems to the Record that this is somewhat of a peculiar request. It puts matters back eight or nine years to the time when deductions were made without orders. Of course the request may not be complied with; if it is, the Record will point out where the end sought for is not attained.

It is likely there will be some fierce amendments to the Coal Mines Regulation Act. It is possible the mode of conducting examinations in the matter of Certificates for Colliery officials, will undergo a radical change. The amendments to the Consolidated Act will likely be so numerous that those responsible for its production, will not know their own bairn.

Section 46, sub-section one of the Coal Mines Regulation Act, reads:—"The wages or salary of any employes of any mine shall not be paid otherwise than in money current in the Dominion of Canada."

Subsection (2) in the Act reads as follows:—"Any such employe may, by order in writing, authorise his employer to apply the whole, or any part, of the wages or salary due to such employe to the payment of any debt due by such employe, but any such order shall be effective only for the weekly period specified therein, and for an amount specified therein."

Pietou Speculators in Oil Shale lands, should take heed to the following from the Salt Lake Mining Review. A correspondent writing the Record on this subject, replies in answer to a request as to what a certain party was doing in exploiting a Shale property, said: "Evidently he is making progress—but he expects big money from any one who desires nothing more than a look at the property." The extracts are for such as he:

In view of the extravagant notions entertained by speculators in oil shale lands of proved or mathematical value, the following is opportunely interesting and important to Canadians who await the actual results from the New Brunswick shales, about to be worked under Imperial Government auspices.

"A friendly word of warning to owners of oil shale lands is not amiss just at this time. Word has been circulated that leases on this ground are being held at from fifteen to eighteen dollars an acre. This is a case of killing the goose which lays the golden egg, for capital will not listen to any such price, but will pass on to the man who is more reasonably inclined.

"We all know that many mining prospects with the earmarks of possible producers are held back by the high prices and exorbitant demands of their

owners, and that capital merely passes them by and develops claims elsewhere. Every mining camp in the west has such properties. Do not retard the development of the oil shale lands in the same way, an exaggerated and mistaken idea of the price you should receive.

"The reports of high prices paid for various holdings are injuring a new industry of vast possibilities, for they have given a false and widespread idea of inflated values. Many are already holding out for high prices, through ignorance of the real facts, and these few remarks are intended primarily for their reading. Give capital a chance!"

The exploitation of real oil shales, the determining of their oil and sulphate of ammonia contents, the proof that there is large tonnage, call for capital amounting to millions and strictly business methods. More than \$100,000 was spent in the preliminary investigation of the New Brunswick shales. Canadian oil shales are too important to be trifled with by adventurers.

There are two ways of obtaining recognition, a quiet and simple way, and a loud and more warlike way. The P. W. A. was born at a time when there were no Unions, and when neither the public, the press nor the politicians were solicitous for their favor, for the simple reason that the P. W. A. was not considered a force to be reckoned with, and yet the P. W. A. secured recognition—with but little, indeed it may be said without trouble. The directors of the Intercolonial Coal Company settled the matter, when told that the committee were workmen of the Company. The directors did not ask who sent them, or if they were union men, and the Committee did not proclaim loudly that they were union men. The directors told the Manager to meet at all times, committees of workmen. The P. W. A. bided their time, and full recognition came in due course without any request for it. It came as a natural sequence so to speak. The executive of the P. W. A. took good care not to give the Managers any excuse for saying "We will meet with Committees of Workmen only." Never did the Grand Secretary accompany a committee to interview the Manager of a Mine on the mainland till after Leckie's time, and never on the Island until the coming of the Dominion Coal Coy., When the Genl. Manager was the one important official. And by quiet persistent endeavor the P. W. A. got stoppage of dues, a thing unheard of at that time among the Collieries of the continent. If any Company will receive at any and all times a committee of their workmen, Union officials need not worry about the coming in due time of recognition, full recognition to all intents and purposes which will come sooner or later. Union officials should not wish to have the privilege of interviewing workmen officials along with a Committee. As a rule this

should be avoided, so as not to give cause for offence, and as showing further that the Committee of workmen are able to present their views without assistance.

for dear ones far away, and a lump comes into at least one throat there, and while inwardly echoing the prayer he cannot sing it.

Holy Father, in Thy mercy,  
Hear our anxious prayer;  
Keep our loved ones, now far absent,  
'Neath Thy care

## THE PADRE'S TURN.

### A Sunday Evening in France.

The Camp Cinema, provided and run by the Y. M. C. A., is no longer darkened; its half-dozen exit doors are flung wide open, the curtains are drawn across the screen, and yet there is a show on. It is Sunday evening, and the hut is full of troops, presumably Free Churchmen, because those who attend a Nonconformist service in the Army are avowedly Free Churchmen. Church parade means C. of E. unless a soldier voluntarily states that his profession is otherwise. But this is not even a parade service; it is voluntary. Some have come because they have been before, and found the padre a man after their own heart, a sportsman, and, when occasion demands, a straight hitter too.

For others, it is their first Sunday on French soil, and they have come because it has been their custom to attend their chapel at home twice a day on Sundays. They would not admit that they were feeling homesick, but somehow a spring Sunday evening takes one's thoughts across the water to home and loved ones, and the prospect of a quiet service appeals to their souls.

The padre is a cheerful soul. There is an honest light in his blue eyes and a frank, open expression which at once appeals to the men, and seems to tell them he is their friend before he is their officer. All eyes are upon him as he takes his seat on the stage behind the Union Jack covered table. Not 24 hours ago the same stage was occupied by a "funny man" entertaining his audience of laughing Tommy's, but the padre now holds the boards, and it is his star turn. To be sure, he will have an appreciative audience; Tommy recognizes a good man when he sees him and hears him, be he comedian or padre.

"One of you chaps give us a hymn!" Not one, but half a dozen, shout their favourite number. One is chosen, the unlucky ones vow to be in front the next time, and as soon as the padre has said, "One of you —," comes the reply, "447, Sir!" It happens to be "Jesus, lover of my soul." "Shall we have the English or the Welsh tune?" asks the padre. Nearly all ask for the Welsh one, and so "Aberstwyth" it is to be.

There is something very moving about a body of men singing a majestic hymn tune, but Tommy is not a very sensitive soul, and if he feels any emotion he does not show it as a rule. After two or three hymns are chosen and sung, a cello solo by Gunner G., is announced. This is loudly applauded, as also are other solos that follow, and we think how shocked the congregation at home would be!

The padre strikes the right note in his prayer. He appeals for Divine help for the great adventure in front of the men; he touchingly pleads for loved ones at home. The hymn following is also a prayer

The lesson is the Good Samaritan story, and the sermon is the same tale retold and adapted to the modern needs of the congregation. The padre puts it in a new light to some; they had not looked at the percentage of magnesium chloride and other regiment, but when he asks, "What would you chaps think of a man coming down a communication trench and seeing a Tommy badly wounded saying to himself, 'By Jove, that chap's got it badly in the neck, but it's no business of mine, he's not in my regiment, but so passed him by?'" They see his point, that every ill is somebody's business. The British soldier hates a dirty trick and an unsportsmanlike action, that is how the Levite's and priest's conduct appears to him now. The sermon or straight talk, call it what you will, ends on a high note, an appeal to service to one's fellow-men as service done for Christ.

The padre announces that Rifleman S. will sing "O rest in the Lord," and "Please not to applaud this item." It is beautifully and reverently sung and listened to, and the men who on the morrow are to go up the line to the front will surely go into action with a calmer trust for having heard it.

The closing hymn is another favourite, and one wonders whether one more suitable both as regards words and music has ever been written with which to close a service. "The day Thou gavest, Lord, is Ended." Recollections of home circles on Sunday evenings, May meetings at the City Temple, and other occasions of the past all intimately connected with home and all that it means are roused by that hymn, and how those men sing it—bless their dear, uncultivated voices! There is genuine feeling, and, though the lump will come, it is swallowed quickly in case one line may be lost, every note must be sung and enjoyed. Not every eye is dry at the last line, "Till every creature own Thy sway"—that means no more war; it means Blighty, home and for once forget themselves. Follows the padre's benediction. But one thing remains—a chord brings every man to his feet with a smart click of the heels, and rigid attention is preserved while the National Anthem is sung.

The day Thou gavest, Lord, is ended—in a few minutes the "Last Post" will sound, to be followed by "Lights out" and silence will reign over this vast camp.

W. A. CHAPLIN.

## ASBESTOS.

A fibrous mineral named by the finders Asbestos, has at intervals been reported as having been found at certain points in the province, but as to the quality, exact information is unavailable, as the work done on any find was more experimental than

practical. The "finds" so far have not given indications of being in quantity to warrant operations; and besides, as the demand was not urgent there was no incentive to continue prospecting or exploitation. The Asbestos field, it may be said, is still virgin. As no doubt after the war there may be more prospecting for mines in the province than at any previous time, the following description from the Geological Survey Department may be of service. The description refers to the Asbestos presently being extensively worked in Quebec:—

"It occurs in reticulating veins up to 4 or 5 inches in width, in serpentine rock, the fibres, which are easily separable, are very fine, of a silky appearance, and flexible to a high degree. Asbestos is unaffected by heat, except on continued exposure to high temperatures, and is noncombustible. It is a poor conductor of both heat and electricity, and is not attacked by the common acids.

The above characteristics make this mineral an important raw material in a number of manufacturing industries.

Asbestos fibre may be spun into yarn and rope, and woven into fabric, in which forms it finds many uses where a fire resisting fabric is required. For these purposes a long fibre, both strong and very flexible, is desired. At present there are no factories in Canada weaving asbestos.

In this country the principal manufactures of asbestos are mill board, paper and shingles, for which purpose a short fibre is used.

In the making of certain mineral flooring short fibre asbestos enters into the mixture, where it acts as a binder.

On account of its low electrical conductivity, it is used as an insulator in electric instruments. While asbestos paper and mill board are principally used for this purpose, considerable long and short fibre are also employed. Short fibre is mixed with paints to produce a fire resisting paint. It is also used in making stove cement, pipe covering, etc.

Long fibre, besides the uses referred to above, is used in making gaskets for packing glands and pipe joints where high temperature or acid solutions are encountered, making of chemical water and filters, and as a surfacing of gas grates."

The many uses to which Asbestos can be put are becoming better known, as time passes. Asbestos in England, for roofing purposes, has not been very extensively used in the past, but there are many indications that its remarkable wearing qualities are becoming more and more widely recognized, and that there will be a rapidly increasing demand for it as time goes on. It has been found especially adaptable for use in the large industrial districts, such as Lancashire, where, owing to the corrosive atmosphere fumes the life of galvanized iron sheeting is not more than from three to five years, whereas asbestos is not at all adversely affected by such conditions. It is becoming a common practice now, when galvanized iron sheeting needs repairing or replacing, to substitute asbestos-cement sheets. This piece-meal substitution is facilitated by the use of sheets made to the same dimensions as the standard corrugated iron sheeting.

This mineral was possibly better known to the ancients than it is today and of course it was more highly appreciated. Linen in old times was made

from it. It is within the memory of man that the very crudest kind of apparatus for giving light were in use in Britain years ago. The ancients had what were called "perpetual" lamps the wick employed being asbestos. It is principally used in this province for covering steam pipes and in some cases for backs of stoves. The Asbestos so far found in Victoria and Cape Breton counties has not proven of value sufficient to warrant development, but as in the case of some other of the minerals no systematic or persistent exploitation has been done.

### ANTIMONY.

Stibnite or sulphide of antimony occurs at West Gore, Hants County. It is mined in a shaft 700 feet deep. It was discovered in 1880, and the size and value of the ore bodies are well maintained. The deposit carries gold and silver. The ore occurs in two fissure-veins, and has been traced 1200 feet. The veins vary from two inches to seven feet in thickness. The ore-shoots dip 4 degrees southeast, and gold is most plentiful where the percentage of stibnite is high.

Except where a cross-vein of quartz comes into the vein at No. 1 shaft, none of the gold is free, even in ore assaying as high as 10 ounces of gold to the ton. Assays of second-class ore have shown as high as 186 dollars a ton of 2,000 pounds. A very conservative estimate of second-class ore left in the vein, gives it an average thickness of 6 inches, containing twelve per cent. antimony and twenty three dollars gold to the ton of 2240 pounds. There are four shafts on the north vein.

Previously to 1910, there were 3357 tons shipped. For a long time it was not known that the ore carried gold.

This mine produced 191 tons of concentrate in 1911, this being the first production since 1907. There was no output from 1911 to 1915. The mine was unwatered in the autumn of 1914 and was producing in 1915; 10,872 tons being produced during the fiscal year ended September 30th. The production for 1916 was 14,149 tons of ore.

In 1905, 4,000 tons of ore were produced; 427 1-4 tons of mixed ore were shipped to English smelting companies, and contained by assay, gold 1,232 oz., 16 dw. 23 gr., valued at \$24,657. In 1906 there were shipped 782 tons, 1,186 lbs. of ore, which yielded 1,031 oz 11 gr. of gold. In 1907 the production was 3,042 tons of ore, and 1,403 tons were shipped, most of the shipment being 20 per cent. ore. The average amount paid for this ore was \$48.39 per ton. In addition to this the ore contained 1319 oz. of gold, only part of which the smelting companies made payment for. Shipment were made to the following companies:—Hoyt Metal Co., Meallgesell, Schaft, Merton & Co., and the American Metal Co. By assay the ore gave from .77 to 2.06 oz. gold to the ton.

In 1908 the company operating the mine got into difficulties and work ceased early in the Spring of that year. The mine is now operated by the West Gore Antimony Co. The demand is good.

A sulphide of Antimony occurs near Rawdon, Hants County, which carries gold and silver. A mine was opened here, and about 3,000 tons were shipped. Other deposits are known in this locality

which carry high gold values.

Stibnite is an ore of a light colour; has a brilliant lustre. It belongs to the non-metallic class. Its specific gravity 5.524.62, symbol S 52 S 3. It is the chief ore of antimony. It is used in safety matches and fireworks, in the manufacture of rubber goods and in refining gold. Since ancient times it has been used in Eastern countries as a cosmetic.

The follow assay shows the value of this ore.

	From Pay Streak	From low grade ore
Antimony .....	45.75 per cent.	18.21 per cent.
Gold .....	2.48 oz. per ton	.23 oz. per ton
Silver .....	10 oz. per ton	.13 oz. per ton

#### GRAPHITE.

It is probable that the occurrences of Graphite in different localities was discovered more by accident than by search. Prospectors in going round the country in search for some other mineral have run against a deposit here and there, but beyond making the fact of the discovery known, no exploration, in the majority of cases followed, chiefly for the reason that there was no market near at hand. The time may come when there may be a demand and then, no doubt, the mineral will attract attention. The following in reference to the mineral is from a report of the Geological Survey, and gives all information procurable up till the present:—

"While the occurrence of graphite in certain rock-formations in Nova Scotia has been known for many years, up to the present time but little has been done in the way of economic production. Several attempts have, however, been made, more especially in the eastern portion of the province, to exploit deposits of this material, but so far these do not appear to have been attended with much success.

The principal occurrences of graphite in the provinces are described as belonging to the island of Cape Breton. Here the mineral is found chiefly in rocks which have been assigned to the pre-Cambrian age, consisting of crystalline limestones with intrusions. In places, as at Glendale, River Inhabitants, Inverness county, it is found in a coarse red syenite full of graphite specks. At Dallas Brook the rocks are felsites, limestones and slates with which the syenites are associated, and the limestones are graphitic, while beds of graphitic shale also occur. These black shaly beds were at one time mistaken for coal strata. The graphitic limestone is sometimes burned for lime; the horizon of these rocks is that known as the George River limestones, a portion of the Archaean.

One of the graphitic shale localities is found half a mile south of Guthro Lake near the French Vale road. The band at this place is said to have a breadth of two to three feet and can be traced for some distance on the strike. An Analysis of this shale was made in the laboratory of the Geological Survey and gave graphite 38.387 per cent. Report of Progress Geol. Surv. Can. 1879-80 p. 1-2. The purified graphite from this place, when completely separated is of fair quality, and appears to be well adapted for lead pencils, electrotyping, and for most of the numerous uses for which graphite is available. Its value as an economic product would ap-

pear therefore, to depend largely upon the cost of its extraction and preparation for the market, necessary to ensure the requisite amount of purity.

The percentage of graphite in the Glendale shales appears to vary considerably in different parts. Thus, samples, collected in 1878 by Mr. Hugh Fletcher and assayed in the Geological Survey laboratory, gave of graphite only 13.965 per cent, but a more recent assay by Dr. Hoffmann, of material from the same deposit, made for Mr. Jan McIntosh, yielded graphite 31.8 per cent. A later assay is given in the report of the Mines Department for Nova Scotia, of the shales from Christmas Island which is practically the same deposit, in which the percentage of graphite is given as 50.23, with rock matter 43.37 and water 6.50. These shales apparently belong to the Cambrian rocks of Cape Breton.

On Cameron and Dundas Brooks the gneiss, hornblends schists and dark slates of pre-Cambrian age are blackened with the contained graphite, but no definite information as to the actual graphite contents are available.

In the county of Guysborough, near the Tor Bay road, several pits have been opened along the Salmon River in a black slate which is probably of Devonian age, and near the contact of the gold-bearing slates. These slates apparently contain a fair percentage of graphite.

The occurrence of graphite has also been reported from West Bay, Grand Narrows, East Bay and Hunters Island, and in addition, Mr. Gilpin, in his Report of the Mines of Nova Scotia 1880, mentions its presence, mostly in the form of "rumbaginous shales, at Parrsrough, Salmon River, Musquodoboit, Hammonds Plains, Fifteen-mile Stream, Boularderie Island, Gregwa Brook and Gillis Brook, the last three being in Cape Breton. Concerning the extent of these deposits, no particulars are available, and but little attempt at mining has been done for some years; so that the actual economic value has apparently never been ascertained. The above mentioned localities appear to include the principal deposits as yet known to exist in this province."

#### MAGNESITE.

This mineral has not heretofore been given a place in any publication descriptive of the economic minerals of Nova Scotia. Some attention was given to it in 1917, for the first time in Nova Scotia in all probability, due to its discovery, and production to a limited extent by the Nova Scotia Steel and Coal Co., who found the mineral suitable for certain purposes of the company. The discovery was made at River Denys, Cape Breton. The deposit was not an extensive one and soon became exhausted. Its discovery and usefulness has inspired the hope that the mineral may be met with in other districts, and this hope is strengthened by the thought that if a mineral not sought after has been encountered, a systematic search may result in revealing many other hiding places. Indeed its discovery has led old prospectors to imagine, if not really believe, that just such a mineral, or one closely resembling, had been met with in the course of prospecting in several localities but that no attention had been paid

it, as it was considered a white clay, or some sort of soft native cement. Near Whycocomagh several years ago, a mineral, now admitted to closely resemble magnesite, was uncovered in a search for iron ore, but as, at that time, the name was unfamiliar and its uses and properties not known to the prospectors, it attracted no more than a passing notice. The question may have been asked, "What is it?" and as there was none to answer, nothing more was said or done in reference to it. Its value now being known the probability is that the numerous by times prospectors will include magnesite as a mineral worth looking for. Or it may be that the Steel companies may employ skilled prospectors to search for the mineral.

The following description of Magnesite, its nature and uses, is by Fletcher Hamilton, and was contributed by him to a publication named "Foot Notes" whose main purpose is to give description of the rarer and less known minerals:—

"Magnesite is a natural carbonate of Magnesium, and when pure contains 52.4 per cent. C. O. (Carbon dioxide), and 47.6 per cent. Mg. O (magnesia). It has a hardness of 3.5 to 4.5 and specific gravity of 3 to 3.12. It is both harder and heavier than calcite (calcium carbonate) and also contains a higher percentage of C. O. 2, as Calcite has but 44 per cent.

Most of the California Magnesite is comparatively pure, and is ordinarily a beautiful, white, fine-grained rock with a conchoidal fracture resembling a break in porcelain. The Grecian Magnesite is largely of this character, while the Austrian varieties usually contain iron so that they become brown after calcining. The Washington Magnesite, one of the most recent developments, resembles dolomite and some crystalline limestones in physical appearance. Its color varies through light to dark gray and pink.

In California, the known magnesite deposits, with a single exception (a sedimentary deposit in Kern County) are associated with Serpentine areas. The Washington deposits are stated to be associated with extensive strata of dolomite limestones."

"Uses—The principal uses at the present time include the following:—

"In refractory linings for basis of open-hearth steel furnaces, copper reverberatories and converters, bullion and other metallurgical furnaces; in the manufacture of paper from wood pulp; and in making flooring, wainscoting, tiling, sanitary kitchen and hospital finishing, etc. In connection with building work it has proved particularly efficient as a flooring for steel railroad coaches, on account of having greater elasticity and resilience than Portland cement. For refractory purposes the magnesite is "dead-burned"—i.e.—all or practically all of the C. O. 2 is expelled from it. For cement purposes it is left "caustic" i.e. from 5 per cent. to 10 per cent of C. O. 2 is retained. When dry caustic magnesite is mixed with a solution of magnesium chloride (Mg. Cl 2) in proper proportions, a very strong cement is produced, known as oxychloride or sorel cement. It is applied in a plastic form, which sets in a few hours as a tough, seamless surface. It has also a very strong bonding power, and will hold firmly to wood, metal or concrete as a base.

It may be finished in a very smooth, even surface, which will take a good wax or oil polish. As ordinarily mixed there is added a certain proportion of wood flour, cork, asbestos, or other filler, thereby adding to the elastic properties of the finished product. Its surface is described as "warm" and quiet, as a result of the elastic and non-conducting character of the composite material. The cement is usually coloured by the addition of some mineral pigment to the materials before mixing as cement."

The desirable qualities of flooring material (cost not considered) are listed for purposes of analysis or comparison under eighteen heads as follows:—Cleanliness (sanitary qualities), quietness, immunity from slipperiness, appearance, waterproof character, plasticity, warmth (thermal insulation) life (immunity from deterioration by age) acid-proof character, alkali-proof character, fire resistance, elasticity, crushing strength, structural strength (rupture) immunity from expansion and contraction and lightness. The importance of these several qualities varies with the varying requirements to be met. For instance, in some places, as in hospitals, cleanliness is one of prime consideration; in other places immunity from abrasion might be one of the principal requisites. As to most of these qualities the conclusion is reached that magnesite cement affords one of the most satisfactory flooring materials for use in kitchens, laundries, toilets and bath rooms, corridors, large rooms or halls in public or other buildings, including hospitals, factories, shops and restaurants."

There is no doubt that the material is steadily coming into more general recognition and favor for these uses. For a few special uses it is more or less disqualified; as an instance, it is not suited for construction of swimming tanks or for conditions of permanent wetness, since under constant immersion it gradually softens, although it is said to stand intermittent wetting and drying, and is recommended for shower baths. Naturally it is not acid-proof, and not wholly alkali-proof, which might be a disadvantage in its use for laboratory floors and tables; but these are rather special requirements. Its cost per square foot is given as 25 to 33 cents, depending on area which is estimated to be lower than marble, cork, rubber, clay, or mosaic-tile, slate or terrazzo, although more expensive than wood asphalt, linoleum, or Portland Cement.

When unsuccessfully used, the causes of failure are ascribable to uncertain climatic changes, lack of uniformity in mixtures used, lack of care on the part of those handling the materials, possible deterioration of materials used through exposure (either before or after mixing) lack of proper preparation of foundations on which the material is to be laid, and, as a very important factor, experience or non-experience in the manipulation, or actual laying and troweling of the material. Data concerning ground calcined magnesite, and data concerning the character and quality of filler and colour added to the commercial preparations, are naturally guarded as trade secrets by the firms already in the business. The examination and standardization of the raw materials used, and of acceptable filler materials, and the establishment of standard proportions for the mixtures would seem to be about the only satisfactory way of attacking the problem.



The contribution of woman to the solution of the food problem is commonly supposed to be confined to the kitchen. There are indications, however, that she may play an important part in the laboratory also. Investigations of great value have lately been carried out at the Lister Institute by Miss Harriette Chick, D.Sc., and Miss E. Margaret Hume. Some interesting results of their work were series of public lectures now being delivered at University College, London. Her subject was "Accessory Food Factors (Vitamines) in War-time Diets."

But what are vitamins? The name will probably be unfamiliar to many readers to whom such technical terms as proteins, calories, and carbohydrates have by this time become household words. There are certain essentials constituents of an adequate diet which are present in minute quantities in most foods in the natural state. They have been divided into two classes. One class consists of the vitamins necessary to growth. In the other class are the vitamins whose absence produces what are known as the deficiency diseases—namely, (1) beri-beri, (2) scurvy, (3) rickets.

On the question of the growth of vitamins, which obviously affect the case of young people only, Miss Hume said little. They are found largely in fats, and the lecturer accordingly suggested that the fat of milk, butter, and cream should be kept as far as possible for children, while adults made use of the less valuable fats to be derived from such foods as margarine. It is to be noted that the kind of vitamins which ministers to growth is believed to be also the best preventive of rickets.

The greater part of Miss Hume's lecture was an exposition of the characteristics of the vitamins whose absence from the diet is liable to bring on beri-beri or scurvy. These diseases affect both adults and children. The symptoms of beri-beri are the same as those of peripheral neuritis. It is most common among the rice-eating nations of the East, but they are far from being its only victims. The anti-beri-beri vitamins is most richly present in the cortex or husk and the germ or embryo of cereals, and the disease may therefore appear among any people whose diet consists largely of over-milled cereals—that is to say, those from which the modern processes of milling have removed the husk and germ. In English milling before the war these parts of the wheat were taken off and went into the offals. The reason for their elimination was the fact that the germ is very rich in terments. It was therefore debarred by the millers, as it impaired the keeping qualities of the flour.

The pulses, again, are subjected to no destructive processes of milling, and the vitamins are uniformly distributed throughout them. The same description applies to eggs, including dried preparations of genuine eggs, but not such articles as custard powder. Vitamins of the anti-beri-beri type are also present in cow's milk. The only cases known of infantile beri-beri have occurred where babies have been breast-fed by mothers suffering from the disease.

In Miss Hume's opinion, the normal diet of Europeans is a safe one as far as beri-beri is concerned. Even where pure white bread is used, its consumers are protected by the vitamins to be found in the other articles of their dietary. Most of the foods mentioned seem to keep their vitamins very well. There is not much loss of them in cooking at the ordinary temperature, but prolonged cooking—say for an hour—at a temperature of 110 or 120 degrees C. (i.e. considerably over boiling point) will destroy them. The chief application of this discovery concerns tinned foods, as they have usually been subjected, in their preparation, to intense and prolonged heat. A diet consisting mainly of tinned foods, together with polished rice and white bread, would undoubtedly bring on beri-beri if continued for some months.

### NEW KIND OF WOOL.

Owner of dogs of long-haired breeds are asked to preserve combings, as they have been found to be of value for the spinning of an exceptionally high class of wool. A British Dogs' Wool Association has been formed to assist in the matter.

### GERMAN TOBACCO.

An analysis of samples of tobacco taken from German prisoners of war has shown that it consists of small hop flowers, leaves or stems of horsehound, mullein, wild oats, heather, elder and bark.

### POST BELLUM TRADE.

There is every reason to believe that trade after the war will be good, and some industries have already booked orders for five years ahead, stated Mr. G. H. Roberts, Minister of Labour, at a reconstruction meeting at Manchester.

### THE NEW FAITH.

The Faith, 7,900 tons, is the world's largest reinforced concrete ship. Reinforced concrete, it is stated by the engineers, has a notable flexibility under the strain, and will, therefore, be able to stand the stress of sea duty. So sure are they of its success that work on 4 similar ships is to be started at once.

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## HALIFAX, N. S.



## Synopsis of Coal Mines Regulations.

**C**OAL mining rights of the Dominion, in Manitoba, Saskatchewan and Alberta, the Yukon Territory, the North-West Territories and in a portion of the province of British Columbia, may be leased for a term of twenty-one years, renewal for a further term of 21 years at an annual rental of \$1 an acre. Not more than 2500 acres will be leased to one applicant.

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

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

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

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

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

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

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

N. B.—Unauthorized publication of this advertisement will not be paid for.—82675.

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Hon. Martin Burrell, Minister.

### Mines Branch.

Recent Publications:

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

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R. G. McConnell, Deputy Minister.

### Geological Survey.

Recent Publications:

- Summary Report of the Geological Survey for the Calendar, Year 1916.  
MEMOIR 20. Gold fields of Nova Scotia, by Wyatt Malcolm.  
MEMOIR 44. Clay and shale deposits of New Brunswick, by J. Keele.  
MEMOIR 59. Coal fields and coal resources of Canada, by D. B. Dowling.  
MEMOIR 60. Arisaig-Antigonish district of Nova Scotia, by M. Y. Williams.  
MEMOIR 78. Wabana iron ore of Newfoundland, by A. O. Hayes.  
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