

# Conservation

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## Coal Briquetting in Nova Scotia

New and Promising Industry—  
Desirable Fuel Properties  
of Briquettes

In the modern methods of mining bituminous coal large quantities of slack are produced; and while in some sections of the country there is a market for the slack, for use in industrial plants provided with mechanical stokers, in other sections there is little or no market for it. For this reason a number of the operators in Nova Scotia are considering the installation of briquetting plants for the purpose of converting this slack into a higher grade and more suitable fuel.

### Plant at the MacKay Mine

On account of the friable nature of the coal mined at the MacKay Mine much slack is made during mining operations. As there is little or no market for this slack the management installed a briquetting plant with a capacity of 10 tons of briquettes per hour. This is the first plant to be installed in Canada for the purpose of briquetting bituminous coal. Unfortunately, it was damaged by fire during the month of July.

The same company are also installing two similar units at the Colonial Mine, which are expected to be in operation this year.

The briquetting plants are of Belgian manufacture and are of the roll press type.

The following is a short description of the MacKay briquetting plant:

The coal from the mine is screened over a  $\frac{3}{4}$  inch screen; the lump coal (over  $\frac{3}{4}$  inches) is sent to market, and the fine coal is carried by a disc elevator to a 75 ton bin.

The coal is discharged from the bin by chute into a 10 ton concrete pocket situated at the briquetting plant. The coal is then elevated by a bucket elevator to a 3 ton cone hopper. The coal is fed from the hopper to the disintegrator at any desired rate of speed by means of a revolving table and plough-shaped cutter situated at the bottom of the hopper.

The pitch after being crushed is fed into the disintegrator by means of a similar adjustable feed. From the disintegrator the coal and pitch is elevated to the mixer where superheated steam is added. The heated coal is then conveyed to the roll press by means of a spiral conveyor. The briquettes are usually soft as they come from the rolls but upon becoming slightly cool they

become hard and withstand handling very well.

The pitch used as a binder for the briquettes varies from 6 to 8 per cent. of the weight of the coal. This pitch is one of the by-products obtained from the tar recovered at the Dominion Iron and Steel Company's coke oven plants.

The briquettes are ovoid in shape  
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## Water Powers of British Columbia

The water-power resources of British Columbia are being investigated by the Commission of Conservation and the resulting information is to be published, as soon as it can be made available, in a report to be entitled "The Water-Powers of Western Canada," which the Commission have in course of preparation.

The securing of even preliminary field information in a territory like British Columbia requires much more time than in a country less mountainous. Good progress, however, is being made. The British Columbia Government's Department of Lands, under the Hon. W. R. Ross, has made a substantial contribution to assist the Commission in its water-power research.

This practical assistance from the Department of Lands has enabled parties to be detailed for investigation on the mainland coast. These parties have been in the field since the beginning of August and are being directed by the Commission's engineer, Arthur V. White, who is in charge of the work.

The Commission has three field parties investigating the watershed of the Fraser river above Lillooet, extending to Tête Jaune Cache and westward beyond the Fraser Lake district.

To-day, if one views a map of British Columbia and asks what are the power possibilities of the interior of the province, no person can inform one. After the Commission has completed its present reconnaissance survey, it will be possible, first to form some reliable conception of the water-powers of British Columbia south of the line of the Grand Trunk Pacific; and later on, the country north of the new transcontinental line will be canvassed for information respecting its water-powers. It is pioneer work, and so to speak blazes the trail for the capitalist and the engineer. To describe and draw attention to these blazed trails is part of the work the Commission aims to accomplish through its publications.

## Electricity on the Farm

Experience of a Practical Farmer with  
a New Farm Power—Some  
of the Results Obtained

Electricity seems destined to be the farmer's best hired man. The Hydro-electric Commission of Ontario is carrying on an active educational campaign, and is arousing keen interest amongst the farmers of Western Ontario.

In addition to the work of the Commission, some individual farmers have shown commendable enterprise in testing electrically driven machinery on their own farms. The experience of farmers in such a matter is of considerable interest. Mr. R. E. Gunn, proprietor of Dunrobin Stock Farm at Beaverton, Ontario, has furnished the following details concerning the use of electricity on his farm:—

"Electricity costs me \$175.00 per annum at the farm for 100 lights and 20 H.P. in motors. This low rate was secured from the local power company for the reason that they had power going to waste and wished to get some return for it. The power company built the line to the farm (two miles) and put in and own the transformers. I wired the farm buildings and bought all other equipment.

"In relation to other powers as to cost, you can readily see that it is much cheaper than any other form of power except possibly that which could be generated by water, if we had it.

"It is a most efficient power for farm purposes. We run our milking machines, pump water, grind feed, cut hay and straw, cut wood, fill silos, and run other machinery where belt driving is possible and have no trouble in any way. The motors need but slight attention, which is more than can be said of any other power available such as steam or gasoline, both of which we have used.

Its advantages are:—

- (a) Low cost.
- (b) Ease of operation.
- (c) Ease in moving power units from place to place owing to light weight.
- (d) The little attention required to operate.
- (e) Speed in starting."

Mr. Gunn claims that electricity can be generated profitably by the farmer if water-power is available, and he is inclined to the view that it can also be done economically by gasoline power. He further states that the insurance companies show a preference for the use of electricity if the wiring is done by a reputable firm of electricians.

## New Era for Oyster Industry

Legislation of 1911 Provides for  
Clear Titles to Oyster  
Beds

Prospects for a prosperous oyster farming industry in the Maritime Provinces are much brighter than they were last year. Ever since the Judicial Committee of the Imperial Privy Council pronounced upon the Fisheries Reference of 1908, making it doubtful whether the Provinces or the Dominion had jurisdiction over the oyster beds, the man who wanted to engage in oyster culture could not obtain a good title to the foreshore where he wished to plant his oysters. But now that is changed, and the oyster farmer can proceed with the planting of his beds with full assurance that they will be acknowledged as his own, and protected from poachers. At the last session of the Dominion Parliament, an act was passed whereby the Dominion relinquished its claim to the right to grant leases to the foreshore, abandoning that privilege to any province desiring to possess it.

### In a Badly Depleted Condition

Some such action making clear who should have the right to grant such leases was absolutely essential if the oyster fishery was to be saved from extinction. During the long years of this jurisdictional dispute, when it was impossible for anyone to obtain a clear title to lands suitable for oyster culture, the oyster beds were subjected to a ruthless free fishing that brought them to the verge of depletion. Indeed, the annual production decreased from 64,646 barrels in 1882, to 33,102 barrels in 1911; and this, notwithstanding the fact that the price in the past twenty years has increased by over 240 per cent. The experience of every other oyster-producing country showed that the only remedy for such conditions was the introduction of private property in oyster beds, and the prosecution of cultural operations on a large scale.

### Prince Edward Island to the Front

The application of that remedy is now made possible by the act of last session and Prince Edward Island, formerly the largest oyster-producing province in Canada, has seized the opportunity to restore its former prestige in that field of industry. The Province has entered into an agreement with the Dominion Government whereby it is given the undisputed power of

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