

Conservation

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Natural Gas

**Its Fuel and Power Efficiency—
Where it is Found in Canada—
Lessons to be Learned from
United States—Waste
Should be Prevented
by Legislation.**

Natural gas has many advantages as fuel and as a source of power. It is cheap, efficient, clean, and it is easily transported for use in the vicinity of the fields. By reason of its unstable and fugitive nature however, it has frequently been recklessly wasted, both in Canada and the United States.

The most valuable uses for natural gas are for the development of power and for domestic purposes. It is estimated that with gas at 12 cents per thousand, electric power can be developed as cheaply as it can be generated by water power at Niagara. In Canada, the producing gas wells are situated in the counties of Welland, Haldimand, Norfolk, Kent, Essex, Bruce and Brant, in Ontario; at Moncton, N.B. and at Medicine Hat and vicinity; in Alberta. The cost of this gas, as sold, varies from ten to forty cents per one thousand cubic feet in Ontario, to about five cents per one thousand cubic feet (in quantity) in Alberta. It follows, therefore, that electric power can be generated in a portion of Alberta at one-half the cost at Niagara. M-3

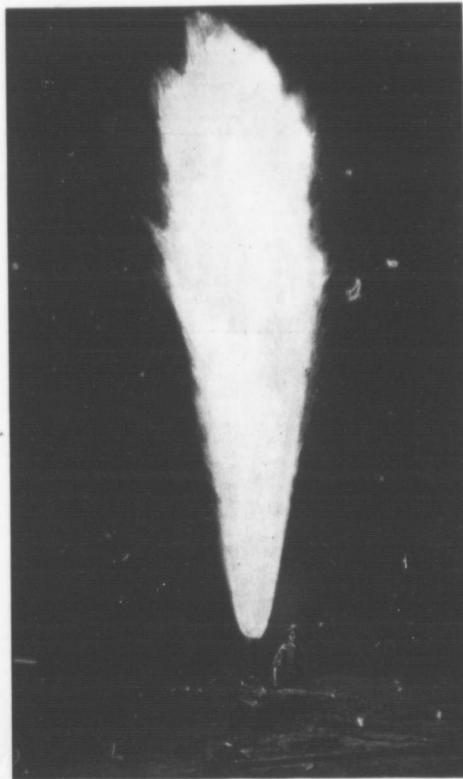
The history of the natural gas in Canada has been similar to that in the United States. In both countries, its discovery has, in nearly every case, been incidental to the search for oil and has been at first regarded as a nuisance by the oil driller. For many years in the exploitation of the great Appalachian oil fields in Pennsylvania and West Virginia, it was permitted to go to waste until its enormous industrial value was discovered. Now, however, the gas is used to furnish fuel and power to the many industrial establishments of Western Pennsylvania and Eastern Ohio. In 1855-6 the great gas fields of Ohio and Indiana were discovered, and the same disgraceful history was repeated. A few years later the Kansas-Oklahoma fields were discovered, and there the same history was, in a measure, repeated, although the value of the gas was more promptly appreciated and the industrial development was correspondingly more rapid.

Let us see what the history has been in Canada, and note what should be done in order to prevent the waste of such a valuable natural

resource. In the past, enormous quantities of natural gas have been wasted, both in Eastern and Western Canada. In a gas field, a careless driller may either lose control of the well through carelessness or ignorance, or abandon the same without plugging it. Not only is his own property destroyed in this way, but the surrounding area is also drained, thus injuring the entire community through the negligence of a single individual. His acts thus become a matter of public concern and a proper field for legislative control.

The Province of Ontario has reduced the waste of natural gas to a minimum by causing all abandoned wells to be plugged, and by levying a tax of two cents per thousand feet, with a rebate of 90 per cent, when the gas is used in Canada.

Large quantities of gas, with oil, have been "struck" in New Brunswick, and it is necessary also that this province make statutory provisions in order to prevent any waste of gas that may arise incident to oil production.



The photo shows a burning gas well at Pelican Portage, Alberta. This well has been burning and wasting gas for the last thirteen years. Although there is, at present, no market for this gas, the photograph demonstrates the possibilities of waste under existing laws. No one can doubt that, in the near future, there will be an enormous market for this valuable mineral resource.

Municipal Forestry in Ontario

**Survey of Trent Watershed, during
the Summer of 1912—A Re-
port to be Issued.**

Forestry is a comparatively new science. Municipal forestry, in so far as Canada is concerned, is newer still. It was only a year ago that the Ontario Government passed an Act which empowered municipalities to engage in forestry. As a result the county of Hastings has already taken steps to acquire waste lands for the purpose of reforesting them.

During the coming summer the Commission of Conservation will supervise a survey of the county of Haliburton and the northern portion of the county of Peterborough in Ontario. This survey is to furnish a detailed description of economic and natural conditions and resources of the watershed in Peterborough and Haliburton counties feeding the Trent canal waters, and to serve as a basis for a plan of management.

Economic Conditions

The area comprises about 1,500 square miles, of which as much as can be accomplished in one summer season is to be examined. A map on the scale of 2 inches to the mile on which 3-acre lots can still be conveniently designated, is to serve as basis for description.

The economic conditions to be ascertained will comprise:

- (a) Ownership and status of timber limits;
- (b) Municipal relations and tax conditions;
- (c) Farm development, crops, character and quantities;
- (d) Manufactures and mills in existence, and possibilities of local industrial development;
- (e) Means of transportation and development of water-powers, so far as useful for developing local industries;
- (f) Tourist traffic, game and fishing interests.

Natural Conditions

The natural conditions to be ascertained, and, as far as possible, to be mapped, are:

- (a) Topography (in the rough) and delimitation of watersheds;
- (b) Land classification by parcels, down to a minimum limit of 10 acres;
- (c) Statements regarding character of climate and soil;
- (d) Character and conditions of forest growth in connection with (b). This will include estimates of mer-

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