

**Commission of Conservation
CANADA**

SIR CLIFFORD SIFTON, K.C.M.G.
Chairman

JAMES WHITE
Assistant to Chairman and Deputy
Head

CONSERVATION is published monthly. Its object is the dissemination of information relative to the natural resources of Canada, their development and proper conservation, and the publication of instructive articles on town-planning and public health.

The Newspaper edition is printed on one side of the paper only, for convenience in clipping for reproduction.

OTTAWA, NOVEMBER, 1919

WORKMEN'S COMPENSATION

The report of the Ontario Workmen's Compensation Board for 1918, the fourth year of its operations, shows the magnitude of the task with which it is charged. During 1918 there were 47,848 accidents were reported to the Board and over \$3,500,000 was awarded in compensation to the victims. These totals alone remove any doubt as to the essential service performed by a proper system of workmen's compensation. With an average of 158 accidents being reported each day in Ontario, and daily awards of compensation amounting to \$11,600, there must be adequate machinery and equitable methods to collect and distribute the funds necessary to cover this industrial and community loss. A progressive compensation system must go farther; it must take effective steps to reduce the number and cost of accidents to a minimum. The Ontario law gives the Workmen's Compensation Board power to promote accident prevention and, if more attention were devoted to this phase of the work, the annual compensation cost would show a marked decline.

FIRE FIGHTING OR PREVENTION?

Except London, Paris and Berlin, European cities have paid little attention to modern fire protective equipment. The fire directed their chief energies to fire prevention. Municipal expenditures have been devoted to the control of building construction and maintenance. On the contrary, Canada has developed very elaborate and efficient fire-fighting facilities. As regards appliances, methods and personnel, the fire brigades of large Canadian and American cities are incomparably superior to those of other countries. In this course of action lies one of the essential differences between the respective policies of Canadian municipalities and those of Europe. To prevent rather than to extinguish fires has not impressed public bodies in Canada as being a part of their functions. Consequently, the annual maintenance average costs of city fire departments average \$1.43 per capita, and insurance rates \$1.18 per capita in Canada as compared with 21 cents, 71 cents and 26 cents, respectively, in Europe.—*Fire Waste in Canada, J. Grove Smith.*

PAMPHLET ON COAL ECONOMY

Canadian consumers are always under a special necessity to exercise the utmost economy in the use of coal.

Central Canada is to a very large extent dependent upon the United States for its coal supply and a recurrence of the severe winter of 1917-18 will create a heavy demand for fuel, with the possibility of another failure of the railways to deliver the coal.

Canada has the reputation of being a wasteful nation. As regards our use of coal this reputation is deserved. The condition of the ashes removed from the average home by garbage collectors clearly shows that much good fuel is going to the dump heap. This is the result either of indifference in the operation of the furnace or of neglect to screen the ashes.

The Fuel Testing Branch of the Department of Mines, has recently published a pamphlet by John Bliard, B.Sc., on *Economic Use of Coal for Steam-Raising and House-Heating*, which gives valuable information on the operation of furnaces and on fuel economy.

A further and important reason for economy in the use of imported coal is that in the United States to-day our money is at a discount. Any substantial reduction in imports is of material aid in correcting the conditions to which the adverse exchange is due.

PREPARE THE ICE HOUSE

"We have ice cream every Sunday, and we have lots of it, which is probably more than the average city family has."

This statement was made by a farmer, whose family, though grown up, has not deserted farm life. The inducements which cause many young folks to migrate to the urban centres are counteracted by the comforts of the farm home.

The above remark refers to one of the incidentals, which, individually, seem insignificant but, collectively, mean much.

With ice so easy to secure, and the expense of packing so small, the wonder is that so few farmers put up a summer supply. Almost any kind of a building or lean-to will serve as a storage place. All that is necessary is good drainage and solid packing with sawdust.

The comforts that accrue to those having an ice supply are numerous, apart from its utility in providing cold storage for milk, butter, fresh meats, etc. The cost of the supply is nominal, and the labour is required at a time when other work is not heavy on the farm.

SOMEBODY WAS CARELESS

A gasoline lamp in use in a creamery at Moose Horn, Manitoba, exploded, and half the village was wiped out by fire, causing a loss of \$100,000. Gasoline lamps are a serious fire hazard when they are not kept thoroughly clean. The cleanliness depends upon the carefulness of the human element and no one can afford to invite a fire by lack of care.

PROSECUTION OF LAW BREAKERS

During the month of August, 1919, the Division of Fish and Game of the New York State Conservation Commission took action in 345 cases of infraction of the fish and game laws. Of these, 288 cases were settled in civil action or by fines; 46 licenses were cancelled and, in nine cases, suspended sentences were granted. In only one case was there an acquittal and the remaining four cases were either held for investigation or cancelled. The total amount recovered in fines or in civil action was \$5,038.35. The administrative branch of the New York Conservation Commission obviously is determined to make infractions of the fish and game laws in New York state a costly procedure.

CONSERVATION STUDIES AT CORNELL

A course in "Wild Life Conservation and Game Farming" has been added to the curriculum of the New York State College of Agriculture, one of the eight colleges of Cornell University. The course is intended to afford opportunity for those who look forward to taking positions as managers of game preserves, technical assistants to state game and fish commissions, secretaries of sportsmen's clubs and Audubon societies or assistants to state ornithologists and to those who hope to find employment with the United States Biological Survey and the Bureau of Fisheries to engage at work in zoological gardens and public parks that make a specialty of wild life." It is intended merely to supplement the training given in the courses leading to the degree of B.Sc. in agriculture and embraces both classroom and general lectures, as well as extra field work. The undertaking of such work by such an outstanding institution is significant and may overshadow similar action by other universities, especially those with strong agricultural faculties.

CLEAN THE FURNACE—SOOT WASTES HEAT

Soot has an important bearing on the conservation of heat. While much has been said and written regarding the necessity for economy of fuel, this question of soot, equally important from the household's standpoint, has been rather overlooked. Since the coal supply is limited, it is absolutely essential that the maximum quantity of heat obtainable from the fuel be utilised. An examination of many heating systems shows that considerable quantities of soot have been permitted to remain deposited on the interior surfaces of hot-water furnaces, preventing the heated gases from the fire-pot from accomplishing their duty of imparting the ultimate amount of heat energy to raise the temperature of the water in the boiler. The seriousness of this loss is demonstrated by the accompanying table.—*G.H.F.*

**Seasonable Lessons
from Forest Fires**

Legislation to be Effective Must be Elastic and be Backed by Enlightened Public Opinion

Every year, forests worth immense sums are sacrificed as burnt offerings to the Canadian god of carelessness and public indifference. The reckless camper and sportsman have caused the destruction of timber valued at many millions of dollars. Fortunately, public opinion has gradually crystallized into demanding and supporting legislation that may, in time, largely eliminate this class of citizen. But legislation of itself will never protect the forests completely and, unless it is made sufficiently elastic, may actually legalize careless methods in the woods.

During recent years this latter fact has been clearly demonstrated in British Columbia. Until this year, settlers were forbidden to burn their clearing slash until after September 15th in any year, unless granted a permit by the Forestry Branch. After that date, such burning was permitted by law, whether the season was a dry one or not. The result has been that some of the worst fires have occurred in that Province during the last two weeks of September. Although an Act to amend the Forest Act was passed last March, extending this time to October 1st, the season just closed presents a striking illustration of the danger of arbitrarily fixing a date after which it is legal to set fires in the forest. Following a long period of dry weather, a score or more settlers' fires, fanned by high winds, developed into widespread conflagrations. Sections of the forests in the Fraser and Cheakamus valleys and in some of the coast areas suffered heavily. Railways were seriously injured in places, homes were endangered or destroyed and several lives were reported to have been lost. It is possible that the settlers who started these fires were ignorant of the terms of the new Act or, knowing them, they chose to flout them and follow the practice of former years. In any case, the fires occurred at the end of September.

Moreover, any legislation to be effective must have the support of a determined and enlightened public opinion which will make it impossible for careless and selfish settlers, or others, to break it. Surely this country ought to be old enough and sufficiently schooled to stop playing with fire either in the forests or elsewhere. The folly and wantonness of burning the nation's resources has been demonstrated scores of times in practically every portion of the Dominion, so that only a mentally lazy people could fail to see and to feel the shame of it.—*A.D.*

Loss in Conductivity of Boiler Plate Due to Difference in Thickness of Soot

Thickness of Soot	Loss per cent
Clean	0.0
1/32-inch	9.5
1/16-inch	26.2
1/8-inch	45.2
3/16-inch	69.0