

Conservation

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Permits for Settlers' Fires

Legislation Urgently Needed in Several Provinces

Every province of Canada has learned by bitter experience the enormous destruction of forest wealth that follows the unregulated burning of debris resulting from settlers' clearing operations. Owing to their proximity to the virgin forest, these clearing fires, when set out during dry times, or with insufficient supervision, spread in many cases beyond control, and have caused the destruction of millions of dollars worth of timber, which otherwise would have furnished employment for Canadians and raw material for Canadian industries.

In British Columbia, Quebec, New Brunswick and Nova Scotia, laws have been enacted for the control of this menace, by forbidding the setting out of clearing fires except on permit signed by a forest officer. A similar provision will no doubt be considered by the Ontario Government this winter. There still remain, for similar consideration, the prairie provinces, Alberta, Saskatchewan and Manitoba. The northern portions of these provinces are largely in forest, and vast areas must always remain unsuited to any other purpose than the growing of timber. The forest reserves already established in these provinces total some 33,226 square miles. Many times more timber has been uselessly destroyed by fire than has ever been cut. The remaining depleted resources are urgently needed for local consumption, with limited export possibilities. In addition, Forestry officers state that the greatest damage to the forest reserves is through fires which originated outside them, and that the most important single source of such fires is the unregulated clearing operations of settlers in the vicinity of the reserves.

This demonstrates that the provincial governments of Alberta, Saskatchewan and Manitoba should enact legislation providing for the control of settlers' burning operations, in forest sections, under the permit system, as has been done in other provinces. While general

legislation would be highly desirable, and amply justified, the most urgent immediate need would be met by making the permit system effective throughout a belt of from three to six miles wide, along the exterior boundaries of the forest reserves. It is already effective within the reserves, under Dominion legislation, but action by the provinces is needed to provide for the situation on the outside.—C.L.

Scientific Research

Application of Science to Industry—Co-operation Necessary for Best Results

Modern industry to be successful must be based on scientific research. In Canada practically no attention has been paid to the ad-

dentships and fellowships. A recent report published by this committee points out that the Government had already embarked upon an organized scheme for the scientific support of British trade and industries as early as 1900, when the National Physical Laboratory was established with the assistance of a Treasury grant. This institution was established to bring scientific knowledge to bear practically upon every-day industrial and commercial life. This initial step in the right direction was followed by grants to such bodies as the Engineering Standards Committee, the Imperial Institute and, more recently, the Imperial College of Science and Technology.

It is intended that the Advisory Council shall form a permanent organization to promote industrial and scientific research throughout the kingdom, and organize the weapons of industry just as the Government has already organized the weapons of warfare. The Council will undertake a campaign of education to impress on manufacturers the benefits to be derived from scientific research.

To secure the closer co-operation of manufacturers, but not overlooking the great importance of pure science in solving the practical problems of industry, the Council will attack first purely industrial problems, the practical bearing of which can be appreciated by all.—W. J. D.



Cut 114
Settler clearing land near Nottaway in the Clay Belt of Northern Quebec. Both timber and soil are highly inflammable during periods of drought, and the greatest care must be exercised in the use of fire for clearing operations, to avoid the danger of such holocausts as occurred in July in similar territory in Northern Ontario. The permit system of regulating settlers' fires will, if properly enforced, furnish the necessary degree of protection.

THE FARM HOME

A time will come when enlightened farmers will realize that the farm household is the source of all energy, enterprise and intelligence that makes farming a success and life on the farm possible. It is the indefatigable farmer's wife that makes the farm home; altogether too often she makes it a real home in spite of her husband rather than as a result of his co-operation with her. He, to his shame be it said, too often has by far a greater appreciation for hogs, cattle, grain and hay and their proper housing and care than the equipment and environments that make practicable the proper rearing of his own children. Yet he will complain that the young people will not stay on the farm.—American Lumberman.

vantages of scientific research and many business men fail to appreciate its commercial advantages. Since the war, however, several of the largest corporations in Canada have taken up this work in their own interests. It is natural that some will be unwilling to disclose the results of their investigations, but to achieve the greatest success, such as Germany obtained before the war, there must be complete co-operation amongst all manufacturers and the Government so as to eliminate overlapping of effort and work for the benefit of the common good.

In 1915, Great Britain appointed an Advisory Council for the three-fold purpose of instituting scientific researches, establishing or developing institutions for the scientific study of industrial problems, and for the institution of research stu-

FIRE PAIL PROTECTION

Useful articles to have on the farm are buckets of water properly distributed around the barn. Fire buckets, with rounded bottoms, which, on account of their shape are inconvenient for general use, can be placed in a round hole cut in a shelf or bench; they should be covered and inspected regularly to assure their being kept full. To prevent freezing two pounds of fused calcium chloride per pail may be used. The buckets should be painted red so that they will be more conspicuous, a constant reminder of the danger of fire.

Hang up the lantern while working in barn or stable. Many barns are burned by lanterns being knocked over and starting fires.