

Wood using Trades and Raw Material

Serious Situation in United States Due to Depletion of Eastern Forests

A report recently issued by the United States Forest Service shows that over two-thirds of the original forest area of that country has been culled, cut-over or burned. There are left to-day about 137,000,000 acres of virgin timber, 112,000,000 acres of culled and second-growth timber large enough for sawing, 133,000,000 acres partially stocked with smaller growth, and 81,000,000 acres of forest land of all sorts, which contains about 2,214 billion feet of timber of merchantable sizes. Three-fifths of the timber originally in the United States is gone. Cutting is taking place each year at more than four times the rate of the annual growth. Even the trees too small for the sawmill, but upon which the future lumber supplies depend, are being cut three and a half times as fast as they are being produced.

The report shows that the use of wood cannot be appreciably reduced without serious injury to the agriculture, the home building and the manufactures of the United States. The *per capita* use of lumber cannot be reduced to one-half or one-third the present amount if the resources of the country are to be developed and its industries maintained. The great bulk of the wood required must be grown at home, since large increases in lumber imports are not possible at reasonable prices.

The original pine forests of the Lake States, estimated at 350 billion feet, are now reduced to less than 8 billion feet. The output of sawmills in the region bordering the Great Lakes has, since 1892, been reduced from 9 billion board feet of lumber to one billion.

The virgin pine forests of the Southern States have been depleted from a stand of 650 billion feet of timber to 139 billion feet.

One-half of the timber remaining in the continental United States is in Washington, Oregon and California, and 61 per cent of it lies west of the Great Plains. It is estimated that, within the next decade, the shortage of nearer timber will compel the Eastern and Central States to increase their annual consumption of western lumber by 11½ billion board feet.

The depletion of timber in the United States has not resulted primarily from the use of the forests, but from their devastation. This is the result of forest fires and of methods of cutting which destroy or prevent new timber growth.

To remedy this situation, the Forest Service is advocating concerted action by the Federal and State governments and by the land owners. The prevention of further devastation of the forests, through protection from fire and insects and by regulation of the methods

of cutting, is strongly advocated. The responsibility of the land owner is emphasized, in addition to the undoubted responsibilities of the various governments. The policy advocated aims toward timber production on somewhat the same footing as in France and Scandinavia, as an established national practice. This calls for a core of public forests, governmental instruction and example, as well as encouragement in methods of production and taxation, and a responsibility recognized by forest owners to keep their lands productive.

This programme is meeting with a rapidly increasing measure of support on the part of the many large industries dependent upon the forest for their raw material, as well as from public-spirited organizations and individuals throughout the country.

The forests of Canada have, for the most part, not yet suffered so severely from devastation as those in the United States, but losses from fire have, nevertheless, been severe, and the productivity of the land is being constantly decreased through lack of regulation of cutting methods calculated to perpetuate the forest through wise use.—*Clyde Leavitt.*

GASOLENE IS DANGEROUS

Gasolene fumes came in contact with a lighted lantern. Ten buildings destroyed, loss, \$250,000.

Gasolene is dangerous. It is one of the most rapidly volatilizing liquids. One pint of gasolene will impregnate 200 feet of air and make it explosive.

Many serious fires have been started from the careless use of gasolene.

Gasolene should only be used in the open air, and clothes, after being cleaned with it, should be hung outside to allow it to evaporate. It should always be kept in tightly closed metal cans, never in glass bottles or jars. The latter are liable to breakage and the consequent freeing of the dangerous fumes when open flame may ignite them and cause a serious fire.

TAKE CARE OF ITS TREES

The Hydro-Electric Commission and the Parks Department of the City of St. Thomas have placed the trimming of the trees on the streets where hydro wires are strung under the superintendence of the Horticultural Society. The St. Thomas Horticultural Society have as their chief plantsman, Mr. R. V. Smith, formerly superintendent of Parks of London, who is an expert along this line. The trimming is being done in a sane manner. That part of the work on the tree that it is necessary to remove to protect the wires is paid for by the Hydro Commission, and the balance of the work to make the tree symmetrical is paid for by the City Council. The spirit exhibited by these two municipal bodies is commendable.

Forestry Conference at London, England

Delegates from all parts of Empire Discuss Utilization of Resources

The holding of the Imperial Forestry Conference at London, England, from July 7th to 26th, will constitute a landmark in the development of forestry throughout the British Empire. Strong delegations were present from the United Kingdom and from the various colonies, dependencies and dominions, including Canada. The discussions were held strictly to the subject in hand and were based upon reports carefully prepared in advance showing, for each portion of the Empire, the extent and character of forest resources, their relation to the rate of exploitation, present and prospective, and the status of the administration and of the policy and procedure governing the utilization of these resources.

Between sessions of the conference, tours were arranged to representative forests in England, Scotland, and Wales, both natural and planted, in order that the delegates might become familiar with what has been done in the past and what is under way for the future, along forestry lines.

The report of the United Kingdom, presented at the Conference, bears out the general assertion that democracies are notoriously backward with regard to forestry practice, at least until the pinch of necessity becomes sufficiently felt to stimulate the adoption of adequate measures looking to the re-establishment of a forest cover on lands chiefly valuable for that purpose.

While the British Isles were formerly heavily forested, clearing has progressed until it is estimated that to-day there is in all England, Scotland and Ireland only 5,180 square miles of forest, or 4.3 per cent of the land area. In England the percentage of forest to the total land area is 5.1, in Scotland 6.0, and in Ireland 1.5.

Approximately 470 square miles of timber land was cut over during the war, this comprising a large proportion of the mature coniferous timber in Great Britain.

As a consequence of this depletion, the United Kingdom has had to rely to a very large extent for its timber supplies upon imports from other countries. The shortage of shipping during the war, however, demonstrated conclusively the extreme undesirability of having to rely so completely upon foreign supplies.

As a result of careful consideration by the British Government, measures are now under way which will in the course of time, restore the United Kingdom to a more self-respecting position with regard to forestry. Under the Forestry Act of 1919, a Forestry Commission has been appointed for the United Kingdom, and an appropriation has been granted of £3,500,000 for its operations for a period of ten years. This money

is to be used primarily for the purchase or leasing of land for afforestation, though other aspects of forestry work will receive attention. Large forest nurseries have been established, land is being acquired, and the programme is already well under way.

Resolutions were adopted by the Imperial Forestry Conference which should result in much more attention being given the vitally important matter of perpetuating the forests by wise use, in all parts of the Empire. It is expected that the next session of the Conference will be held in Canada in 1923.—*Clyde Leavitt.*

Metal Mines Need Better Ventilation

Many Fatalities Occur from Miner's Consumption—Necessity of Fire Control

That miner's consumption kills at least 1,000 metal miners annually in the United States and causes a loss of time aggregating millions of dollars, as well as suffering to miners and their families which cannot be estimated, and that this disease is in large measure preventable by proper ventilation, is the conclusion of Mr. D. Harrington, mining engineer, in a paper recently issued by the United States Bureau of Mines. It is generally accepted that coal miners are healthier than metal miners; this fact is due to the greater attention paid to ventilation in coal mines.

Coal mine operators have seen the need of installing proper ventilation systems on account of the presence of explosive gases. In metal mines, ventilation has not been so seriously regarded till the shortage of labour and the operation of the workmen's compensation acts directed attention thereto.

The removal of the dusts injurious to health as well as of noxious gases and the fumes of explosives, and the reduction of high temperatures and humidity are the principal reasons for efficient ventilation of metal mines. Miner's consumption is largely caused by the presence of exceedingly fine siliceous dust. The hard, sharp, insoluble particles cut and injure the lung tissue and render it more or less inelastic. Heat prostration has also brought about fatalities in metal mines, which could have been avoided by proper air circulation. Inert gases, such as nitrogen and carbon dioxide, will sometimes accumulate, and it is impossible to remove these without fans. Methane, or fire-damp, while not common, is not unknown in metal mines, and explosions of this gas have sometimes occurred.

A further reason for a proper ventilation system is the need of fire control. All metal mines having timber underground should be equipped with fans so arranged that the air current can be reversed at will and all shafts carrying air should have doors so placed at intersecting levels that any shaft can be quickly isolated.