

Forest Preservation and Watershed Protection

Forest preservation is often of the greatest importance and value on account of considerations which are sometimes not apparent at first sight. It is not only the direct financial side of the matter which merits attention, for it must not be forgotten that forest cover on a watershed helps to regulate the run-off and to prevent floods.

Engineers have sometimes thought that reservoirs alone will effect the satisfactory regulation of the waterflow, but it is now being recognized, that, for the best service, reservoirs need the assistance which forest cover on the watershed furnishes. Especially for city water supplies the practice of reforestation of the watershed has now been generally recognized as essential, mainly for the reason that erosion and the silting up of water reservoirs is prevented thereby.—W. L. C.

Protection of Children in Canada

The test of a country's civilization is to be found in the treatment accorded its children. Judged by this standard Canada, and the Province of Ontario, in particular, ranks high. Over twenty years ago the Ontario Legislature enacted a Children's Charter that has since been copied by all the other Provinces, by many of the adjoining States and in some of its important features by Great Britain and foreign countries. In fact it paved the way for the large and ever-increasing interest now being taken in social and child-welfare.

There is a head office in the Parliament Buildings under the direction of Mr. J. J. Kelsa, which furnishes information and encouragement to the Children's Aid Societies organized in the various cities and counties. Over ten thousand children have been placed in foster homes in the past twenty years, and in addition to the direct benefit conferred on the children, the public funds have been saved to the extent of at least one million dollars in the lessened expense for the maintenance of this class.

The following are the chief objects of the Society:—

- 1—The betterment of children in their own homes.
- 2—Their removal when necessary to ensure a chance of becoming good citizens.
- 3—The endeavour to assist every child to find fair treatment, wholesome surroundings, and good moral influences.
- 4—The finding of eligible foster homes for all children made wards of the society.
- 5—Careful supervision without undue interference after being placed in foster homes.
- 6—Receiving and inquiring into complaints of neglect or ill treatment of children.—J. J. K.

Concerning Creosote

The last few years have seen a rapid development of the wood preserving industry on the North American continent, largely owing to the increasing scarcity and cost of good tie timber. At the present time there are two standard preservatives in use, zinc chloride and creosote. As zinc chloride is a mineral salt it is possible to manufacture it to meet specifications. Creosote, however, is a by-product of a by-product, and hence it is very difficult to obtain a desired specified quality. As a result, it has been found necessary to base the specifications on the kind of oil available.

As creosote is used to preserve about 70 per cent. of the lumber treated, and as it appears probable that a shortage will occur in the near future and that high prices will prevail, the problem of increasing the supply is an important one. Creosote is produced in by-product coke ovens and the threatened shortage should further their increasing adoption as there is enough creosote wasted every year in the beehive coke ovens in Canada and the United States to supply all reasonable demands for years to come.—W.L.C.

MOSQUITO EXTERMINATION

During the last two decades a variety of methods have been tried with a view to exterminating the mosquito in various parts of the United States. In addition to being a source of irritation and discomfort the insect is also a menace to health as it spreads malaria. The pest has always been particularly bad along the New Jersey coast, as it breeds by millions in the salt marshes adjacent to the sea.

The first method which offered any prospect of success was the application of oil to all stagnant bodies of water. This, however, was found to be very expensive, and succeeded in effecting only a partial relief. The secret of the only permanent remedy has been found to lie in the draining of the marshes. This has been carried on at Staten Island under the direction of competent engineers, and, as a result, the mosquitoes have been almost exterminated.

In the case of stagnant inland waters, oil can be used to good effect or the depressions can be filled in. Before this method of fighting the mosquito was adopted the cases of malaria in one year on Staten Island numbered 120. Subsequent to the draining of the marshes the number of cases reported was 2. The figures speak for themselves.—W.L.C.

Mink breeding is making considerable progress in Prince Edward Island. Two pairs were recently sold there at \$200 a pair.

Tanning Materials

The figures of the United States Forestry Service show that there are some \$22,000,000 worth of vegetable tanning materials used every year in the United States. The chief source of tannin is hemlock bark, but the quantity used is steadily decreasing owing to the exhaustion of the forests. The amount of bark utilized in the United States in 1906 was 930,000 tons; in 1907, 816,000 tons; in 1908, 810,000 tons; and in 1909, 698,000 tons.

There are, in all, six sources of tannin: (1) gall nuts; (2) fruits of certain plants; (3) leaves of some trees and shrubs; (4) wood of such trees as chestnut and quebracho; (5) bark of many trees and shrubs; (6) roots of certain plants. The decrease in the amount derived from these usual sources of vegetable tannin is being met by introducing new materials and chemical substitutes. There appears to be a limit, however, to which substitution can be successfully carried, and the question of a future supply of vegetable tannins is becoming a matter for serious consideration.—W.L.C.

Time-keeping Systems of Advantage in Mines

A check kept on the men below ground is of value

A system of time-keeping and a check on the men working in the mine will do much to assure the safety of the workers. At a very small expense a system can be installed whereby a gate-keeper will issue checks to the men as they enter the workings, the men returning them when they leave. A glance at the check board will then show whether all the men on a given shift have left the mine. If the board shows that one man is still in the mine, an investigating party can be sent to look for him. A system of fines for failure to return checks will force the men to follow any regulations laid down in this connection. Besides the checks, lists should also be kept showing in what part of the mine each man is working.—W.L.C.

ADVANTAGE OF SHADE

The deleterious effects of sunlight are all too often lost sight of, and it is a common occurrence in a Canadian city to see eggs, meat and other comestibles exposed in store windows to the rays of the sun. Eggs in particular will often deteriorate very rapidly in quality when exposed to the sunlight, although the same thing holds good of canned goods, meats and ripe fruits.

In spite of the fact that the advantages of shade have frequently been clearly pointed out and are generally recognized, many shopkeepers do not seem to consider this

Merits and Demerits of Slash Burning

In connection with the work of forest preservation in the United States, it is interesting to note the respective merits and demerits of spring and fall slash burning, as pointed out in a statement by a forestry official in the district of Oregon and Washington. Particular reference is made to the importance of felling all snags on the cut-over area prior to the spring burning, as if this is not done, the snags are apt to smoulder for a long time and may prove to be a constant source of danger in the dry season of mid-summer, when a strong wind may fan the smouldering sparks into flames. A smouldering snag, which was ignited during a fire on July 4, was noticed to be still burning during the second week of the following November.

The drawbacks to fall burning are largely due to the difficulty of choosing the right time to start the fires. If started at the right time, however, fall slash burning is more thorough because the slash is drier than in the spring. In addition to this, burning in the fall will ensure the extinguishment of whatever snags may be smouldering, before the next dry season comes around.—W. L. C.

Distribution Costs

In the search for the causes of the high cost of living one important fact should never be lost sight of. More than 50 per cent. of the amount realized for our annual crops is spent in handling the same after they leave the farm. In retail purchasing the disparity between the price paid by the consumer is often five and ten times that received by the producer. All intelligent efforts that may be made to remedy these conditions are to be commended. The proposal of Secretary Houston to put the bureau of markets in the Department of Agriculture to work on the problem of the distribution of farm products; the inquiry into the rural credit systems of Europe and other farmers' beneficial organizations—all these may answer good purposes. As the means of obtaining immediate results, however, nothing more promising has been suggested than the establishment of a postal express with C. O. D. privileges without weight limit. The encouragement to direct dealings between producer and consumer which this plan would give, places it in the forefront of remedial measures.—Philadelphia Record.

matter worthy of attention. The erection of an awning is a simple matter, and one which is in the highest degree advantageous where food stuffs are concerned.—W.L.C.