

## Commission of Conservation

CANADA

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CONSERVATION is published the first of each month. Its object is the dissemination of information relative to the natural resources of Canada, their development and the proper conservation of the same, together with timely articles covering town-planning and public health.

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## Mosquitoes

Abolish Breeding Places to Eliminate the Pests

One of the worst summer pests with which humanity has to contend is the mosquito, and yet those who suffer most usually do least to abolish the cause. Most people endeavor to protect themselves from mosquitoes, but the place to secure the greatest results is where they breed.

Mosquitoes breed in stagnant water. Rain-water barrels, old tin cans or pails partly filled with water, and stagnant pools offer welcome breeding places. These should be either drained or protected. People at summer resorts and campers in wooded districts are much troubled with mosquitoes and this pest greatly minimizes the pleasure of those who would spend their summers in the open air.

To prevent them breeding, stagnant water, if it cannot be drained away, should be sprinkled with low-grade kerosene, which will quickly form a film over the surface and prevent the larvae coming to the surface to breathe.

In order to protect the person from mosquito bites, many substances may be used to rub on the hands and arms, one being composed of one ounce each of castor oil, alcohol and turpentine; another, one ounce each of oil of citronella and four ounces of sweet liquid vaseline, while oil of eucalyptus has been used to good effect and the best odor is not objectionable.

There are many powders on the market which are more or less effective insecticides. The foresters of the Commission of Conservation, in their surveys, have used a powder, which is known as "Dettol," which was found very effective when burned in the tents at night. In the evening before retiring, the tents should be fumigated with the smoke fumes.

## Drowning Accidents

Many Lives Uselessly Sacrificed Through Carelessness

Each year many lives are lost by drowning accidents. Carelessness and bravado are the chief causes, consequently many lives might be saved by the exercise of caution.

Learning to swim is of course the first essential in the preventing of drownings, but, even in this, there is an element of danger, as the learner is often tempted to go beyond his depth before fully competent to take care of himself. To keep within his depth is the only safe way for the beginner.

Carelessness in the use of row-boats and canoes has claimed many victims. Ordinary common sense only is necessary to overcome these drowning accidents. These frail craft are only intended for the use of those who know how to use them, and safety depends upon the occupants refraining from moving about.

The use of high-speed motor boats of late has added its chapter to the record of lives lost by drowning. Lack of speed restriction on our inland lakes and rivers has encouraged the "speed fiend," and consequently many accidents are due to his running down or swamping row-boats and canoes, as well as collisions with other motor-boats.

These accidents are avoidable, and the most elementary application of "safety first" principles would save to Canada many needlessly wasted lives.

## Costly Toys

Parents Responsible for Much Fire Loss and Many Deaths of Children

..... residence was almost completely destroyed by a fire, caused by a child playing with matches. The house was soon a mass of flames and the blaze beyond control. The fire threatened to spread to other frame buildings, but the firemen succeeded after a hard fight in confining it to the house in which it started."—*Ottawa Journal*.

"Great oaks from little acorns grow" may be said to have its application in the small beginnings of our great conflagrations. All fires are the same size at the start, circumstances alone being responsible for their control. If means for extinguishment are at hand, the fire may be quickly put out, otherwise no one can tell where a fire will end. In far too many cases, playing with matches has resulted in fires and the death of children in Canada. Yet parents will neglect the most elementary precautions to keep matches from children. Fire has a fascination for human nature, as

is evidenced by the throngs which gather to witness a fire. This has its counterpart in the young child, who early learns that the match will provide fire, and consequently conceives a deep-rooted desire for them. Parents have a great responsibility in the matter of not only teaching their children the danger of lighting matches, but also in keeping the matches away from them and in a safe place.

## Manure as Fertilizer

Equal Results Secured with Fresh and Rotted Manure

Perhaps one of the most remarkable results obtained in our experiments with fertilizers has been the discovery that, as far as ordinary farm crops are concerned, fresh and rotted manure, applied at the same rate, have given practically equal yields. The explanation for this is not easy to find, since rotted manure, weight for weight, is very considerably richer in plant food than fresh manure. It probably lies in the better inoculation of the soil with desirable micro-organisms for the conversion of soil plant food into assimilable forms by the fresh manure and the greater warmth set up by its fermentation in the soil affecting beneficially the crop in its early stages. But, be this as it may, we have the practical deduction that there is no concomitant gain from the use of rotted manure, in the ordinary farm rotation, for the labour involved in rotting it and the large losses in organic matter and plant food that inevitably accompany the operation. *The quicker the farmer can get the manure into the land or onto the land the better, for it is never worth more than when first produced.*

The manurial value of clover need not be dwelt upon at any length. Our work in this connection is fairly well known throughout the Dominion. It has been of an exhaustive nature and has yielded most satisfactory results; indeed, it would be difficult to overestimate its value to Canadian agriculture. Chemically, physically and biologically, the growth and turning under of clover improves the soil, and we have been enabled to demonstrate over and over again that a crop of clover in the rotation has a manurial effect equal to an application of farm manure of ten to fifteen tons per acre.—*Dr. F. T. Shutt at Eighth Annual Meeting of Commission of Conservation.*

Near the town of Tsingyuan, China, a large irrigation project is being carried out. Canals have been dug running for 25 or 30 miles into the neighbouring districts, and a temporary dam has been thrown across the Fen river, which has been wholly diverted into the irrigating ditches.

## Great Waste in Logging

Technical Forest Services Necessary to Supervise Logging

A recent report issued by the United States Department of Commerce calls attention to the very large amount of waste which occurs in converting standing timber into lumber. Waste in logging occurs in a number of forms. In many cases, the tree is cut unnecessarily high, leaving a large amount of the most valuable material to rot in the stump. Young trees are frequently not protected from falling timber. Immature and defective trees are cut and rejected. Large limbs, tree tops and lodged trees are left to waste. Small bodies of timber in comparatively inaccessible places are often left standing. Trees broken in falling are generally left, as are also short log lengths. In the United States National forests, where modern methods of scientific forestry are practised, this loss is about 10 per cent, but in general practice 15 to 20 per cent is not too high an estimate in considering the logging industry as a whole. Undoubtedly, the same percentages would apply also to Canada, unless, indeed, they should be increased.

The forest resources of Canada are by no means inexhaustible; in fact, our resources of saw timber are only about one-fourth those of the United States. One of the most practicable and effective means of conserving these resources is to avoid all unnecessary waste. That great waste still occurs in our woods cannot be questioned, and a good deal of it could be avoided.

The great bulk of logging in Canada is on Crown timber lands, under regulations imposed by Dominion or Provincial authority, as the case may be. In most cases, these regulations are inadequate either to prevent unnecessary waste or to provide satisfactorily for the re-establishment of the forest on cut-over lands. Further, the enforcement of such regulations is for the most part also inadequate, due to lack of sufficient inspection of the right kind, on the ground. The establishment of technical forest services, with adequate staffs of trained foresters, in direct administrative contact with all cutting operations on Crown lands, will be necessary before a satisfactory solution of this problem may be anticipated. A beginning has been made in this direction in Canada, but much still remains to be accomplished. Just at present, foresters are not available, due to the very heavy percentage of enlistment from this profession.—C.L.

The only camp fire in the woods that is "out" is one that is "dead out."