

## Railway Fire Protection

**Dominion Chartered Railways Have Secured Excellent Results**

In times past, the railways of Canada have been charged with being the most important single source of forest fire damage. That this charge can no longer be justly made has been proved conclusively by the results of the present season. Reports received by the Fire Inspection Department of the Railway Commission show that, with very few exceptions, the Dominion chartered railways have faithfully observed the requirements relative to fire protection imposed upon them by the Board. Notwithstanding the exceptionally dry season, practically no serious forest fires have occurred which could be attributed to railway agencies. It is true that numerous fires have started, resulting unavoidably from the operation of trains, but the records show that, in general, the railway employees have been prompt in discovering, reporting and extinguishing them before they did material damage.

Special care has been taken by the companies in keeping the fire-protective appliances of engines in good order; also, much has been done in disposing of inflammable debris on rights of way, notwithstanding the extreme difficulty of securing labour. This work prevents the rapid spread of fires and facilitates prompt extinguishment. Special patrols have been maintained in forest sections, supplemented on all lines by the observance of special instructions to all regular employees relative to the reporting and extinguishing of fires in the vicinity of the track.

Not only have the railways efficiently handled their own fires, but they have extinguished or aided in extinguishing many fires that originated at a distance from the track, due to outside agencies. They have co-operated wherever possible, with governmental or private fire-protective agencies, with such beneficial results as, a few years ago, might have been thought impossible.

It would be difficult to make every farmer father believe that lack of sanitary equipment for his household and neglect of his barnyard caused sickness and deaths in his family. It may be impossible to convince him that the death of his wife at an early age was a result of too much pumping, churning and washing by hand; but they are really so closely related as cause and effect that one might almost declare that only the willfully blind will or can fail to see their relation.—*Community Builder, in American Lumberman.*

## Conservation of Manure

**Farmers' Greatest Asset in Soil Maintenance Wasted Through Lack of Care**

While manure is only a by-product on the farm, it is the farmer's greatest asset in the maintenance of soil fertility. That

Have tight floors in the stable to prevent loss of the liquid, and, if there is not enough litter to absorb it, drain it off into a receptacle from which it can be occasionally taken and spread upon the land. *Don't waste it.*—F. C. N.

The government of New South Wales has purchased and is operating a number of deep-sea trawlers.

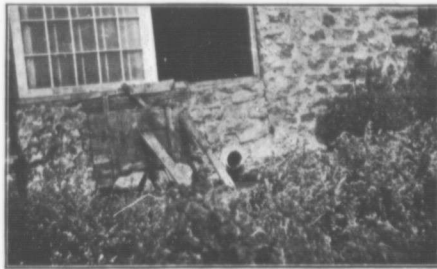


Fig. 143

WASTE OF LIQUID MANURE

The draining the liquid from the stable and discharging where it will be no good.

it is not properly valued and given the care that it deserves is strikingly shown by the results of the Agricultural Survey of the Commission of Conservation in 1915. Seventy-seven per cent of the 400 farmers visited in Ontario were exercising no care to prevent waste of manure, twenty-two per cent claimed to be exercising some care, while less than one per cent claimed to be exercising really thorough care of the manure. Only one and one half per cent were saving all the liquid manure, which contains more actual plant food than the solid excrement. The annual loss amounts to millions of dollars and it can be readily seen that our system of farming is not on a sound basis if this waste is allowed to continue. Any farmer who knows these facts, but takes no steps to prevent the waste, commits an injustice against himself and his country, and is preparing to leave to succeeding generations a heritage of poverty.

This loss can be prevented in several ways. Now, at the beginning of the stabling season, prepare a supply of litter to absorb the liquid manure. As the straw crop is short this year, it is advisable to store a quantity of leaves, dry sods or saw dust for this purpose. Where circumstances permit, it is a good plan to draw the manure to the field as made. If it has to be piled see that it is piled so as to prevent heating and leaching. Mix the cow manure and horse manure together and keep the pile compacted and level on top. A concrete floor in the barn yard is a paying investment, although it may seem expensive.

## STURGEON FISHERIES

Thirty years ago, when Canada's sturgeon fisheries were first being exploited commercially, the flesh of the sturgeon sold for four or five cents per pound, and the prepared eggs, or caviare, for ten cents per pound. The fishery was prosecuted very energetically, and, in 1897, when the record output was attained, caviare had advanced in price to 25 cents per pound. To-day, as a result of continued overfishing, the fishery is virtually depleted, and sturgeon flesh and roe are the most valuable products of Canadian waters. The eggs are worth over \$1.00 per pound, while the flesh is the highest priced of all our fish. The production has steadily declined, until, during the last five years, the annual output has averaged less than one-third of that of twenty years ago.

While the revival of the sturgeon fishery presents considerable difficulty, it should be undertaken, if at all feasible. The sturgeon has been accused of predatory habits, but has been acquitted of this charge by the foremost Canadian scientists. Every portion of the fish can be utilized for the manufacture of some valuable commodity; there is absolutely no waste. The sturgeon fishery has never figured prominently among Canada's fisheries resources, but, carefully protected from over-fishing, it should form a permanent and very remunerative source of revenue to Canadian fishermen. To permit such fisheries to become extinct, unless detrimental to others of more value, is commercial waste and inefficiency.

## Excessive Water Consumption

**Use of Water Meters would Materially Reduce Waste**

The excessive water consumption in Canadian cities constitutes a very serious problem. The average daily consumption in the Dominion is 111 gallons per capita; in individual provinces it reaches as high as 143 gallons per capita, and in certain centres of fairly large size attains a maximum of 292 gallons. There is no doubt that these figures can easily be lowered. The consumption in Great Britain is below 25 gallons in several cases, and the highest rate is only 70 gallons per capita.

That the more extensive use of meters would remedy conditions to a great extent is shown by two of our prairie provinces, Manitoba and Saskatchewan, where meters are more widely used than elsewhere, and where the average consumption falls to 50 gallons and 55 gallons, respectively,—less than half the average for the remaining provinces. Nor would the introduction of meters mean an increased cost to consumers. The average estimated cost of water for Canada is 10.9 cents per 1,000 gallons, the only provinces materially exceeding this being the two prairie provinces, where meter rates have already been widely adopted. The rates charged on the meter basis could be adjusted to meet different local conditions, so that the amount paid by each consumer would be practically the same as at present, but all wastes would be avoided. Many Canadian municipalities have both flat and meter rates in force, the consumer having the choice between the two, but as a rule the meter rates are so ridiculously high for the average consumer that there is in reality no choice. For instance, although the estimated cost for Canada is 10.9 cents per 1,000 gallons, numerous cities and towns charge 30 cents and over, with several charging even over \$1.00 per 1,000 gallons. Our excessive consumption is not due to the liberal and beneficial use of water, but to the careless waste by a few consumers in each community. Meters will not affect the former but will very effectively check the latter.—L. G. D.

In banking up houses for the winter, do not use leaves, straw or other inflammable material, unless entirely covered with earth; a chimney spark, a carelessly thrown match or a cigarette or cigar stub may ignite it.

Six additional government fish shops are being opened in Sydney, New South Wales, and suburbs for the sale of fish.