

Conservation

A monthly bulletin published by the
Commission of Conservation, Ottawa, Canada.

VOL. VII

AUGUST, 1918

NO. 8

Helping to Relieve The Coal Situation

How Consumers May Assist in Preventing Coal Shortage Next Winter

Prior to the war, coal production usually exceeded consumption. Consequently, considerable reserves were built up at strategic shipping points to meet local, current demands. But the more or less acute fuel situation of the past two winters has witnessed the consumption of these reserves. No one speaks of building them up again until the war is over, when transportation, industrial and labour conditions will have returned to normal. All that the fuel authorities expect of the mines is to produce a year's supply in twelve months. It, therefore, follows that all orders for even 70 per cent of each consumer's annual supply cannot be filled at once, so early in the season. Early orders will naturally receive preference however, as well as tending to prevent congestion in transportation.

During the spring, the output of the mines in the United States was not increasing. This has been steadily increasing, however, and there is reasonable grounds for hoping that the supply, for household purposes at the rate, may be sufficient for the demand. Of course in war-time there may happen over which even governments have no complete control, which may cause at least a partial falling off in production, or difficulties in getting coal distributed.

Prices too, may be reasonably expected to be higher than in former years, as in the case of practically all other indispensable commodities.

For these reasons, therefore, if for no other, consumers should obtain their supplies, such as soft coal, wood, etc., to as great an extent as possible. At the same time, efforts should be made to cut down actual requirements of fuel to a minimum. It is quite needless in many instances to heat whole houses to be heated through the winter. By comparatively inexpensive changes in plumbing during the summer, rooms that are little used or unused during the winter months, could have their heating appliances arranged so as to be turned on or off at will. Or, if this be not feasible, radiators in sun rooms and unused attics could be carefully wrapped so as to conserve heat, while preventing freezing of the radiators. By such reasonable precautions the desire to criticize the heads of the Fuel Boards next winter may largely vanish.

—A. D.

Was Laughed at For Twenty Miles Around

City Man Going on Farm was Ridiculed for Keeping Books. Scoffers Were Converted

"Few farmers can tell at the end of a year exactly where they stand financially," said a city man who had recently purchased a farm, in referring appreciatively to the Farmer's Account Book recently issued by the Commission of Conservation. "I think I looked at fifty farms in all parts of Ontario within 100 miles of Toronto. The first question I asked every man who wanted to sell his farm was, 'How much do you make off your farm every year?' and I don't think there were a dozen who could tell. Probably that was the reason many of them wanted to sell. I asked the man who owned the farm I bought, and he replied that he had made all the money he had in the bank. That wasn't much information; but I found out before buying

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What Co-operation Did in Denmark

Nine-Tenths of Farmers Own Their Own Land

Denmark is a little more than one-half the size of New Brunswick. At one time much of it was a bleak waste of sand dunes. Only the eastern portion of the mainland and the neighbouring islands were considered fit for agriculture. In addition, the country was impoverished by the Napoleonic wars and by the robbery of the province of Schleswig-Holstein by Germany in 1866. Yet, to-day, Denmark in proportion to its population, is the wealthiest country in Europe. It is essentially an agricultural country and poverty is very rare. Owing to the excellent system of land tenure, 89 per cent of the families own their own farms and houses.

One of the chief reasons for Denmark's phenomenal prosperity is to be found in the system of education.

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Machinery Used To Fight Forest Fires

Railways and Protective Associations Use Tank Cars and Portable Outfits

Mechanical equipment has demonstrated its value in controlling forest fires and its use is rapidly increasing, now that labour is scarce and it is often difficult to assemble men promptly to prevent a fire spreading. The upper illustration shows a fire-fighting tank car, equipped with 4,000 ft. of 2½-in. hose, hose rack and pump, maintained by the Canadian Pacific railway for the control of fires along its lines in the Muskoka district, Ontario. The

lower illustration shows the equipment in actual use at a fire in cut-over forest lands, where the debris on the ground constitutes a source of great fire danger.

Tank cars and pumping outfits are also in use, to a limited extent, on portions of the Grand Trunk, Transcontinental and Timiskaming and Northern Ontario railways, and have thoroughly demonstrated their effectiveness. Portable pumping outfits for forest protection purposes, are used by the Dominion Parks Branch, Dominion Forestry Branch, British Columbia Forestry Branch, Ontario Forestry Branch, Canadian Pacific Railway Forestry Branch, and by the St.



Maurice, Ottawa River, Laurentide and Southern St. Lawrence Forest Protective Associations.—C. L. Cut No. 174

Points to Observe in Buying Fillets of Fish

Housewives Should be Able to Distinguish Between Good and Bad Fillets

Bad fish may be a very dangerous food and has the faculty of producing a complete knockout, of sometimes several days' duration. In these days, when the cost of living is high, housewives are looking for meat that will be inexpensive, and naturally think of fish, because of the comparative cheapness of this article. But what may appear cheap and good may prove to be very expensive if sickness be the result.

Because of the absence of bone and skin, fillets are easy to prepare for the table. It is not very difficult to tell if a whole fish is fresh, but when cut into fillets it becomes much harder. Fillets are frequently cut from fish that have been dead from ten to fourteen days, that is, from fish left over when all shipping orders have been filled. These fillets are then soaked in anaesthetics for a long time to take away the bad smell, which gives that yellow colour which is supposed to be due to "smoke".

To tell the difference between a fresh and stale fillet of fish is very simple. Fillets from fresh fish may sometimes appear "sweaty," that is, moist on the surface. They are, however, always firm to the touch, are not easy to break, and will leave the fingers clean. Those taken from stale fish, on the contrary, are always soft, easy to break, and when handled will leave the fingers sticky. Take a small piece between the finger and thumb and if it leaves a sticky feeling, that fish is not good. Then, if there is the least sign of a green-coloured streak, it is a sure sign that the fish was either stale when cut into fillets or had since been kept too long. This variety of fish will keep for only a few days when put up under the best conditions, and, if exposed to air in a warm place, will quickly develop small white maggots.—Toronto Health Bulletin.

Conservation necessarily means more public ownership, more public business; this means a demand for better government; and this means giving men a real career in the public service.—Richard T. Ely.

Community canning clubs have been formed in Victoria, B.C., and Brantford, Ont.

Railway Assists in Protecting Forests

Text of Order to Section Foremen in Quebec

A circular of instructions issued by the Roadmaster of the Canadian Northern railway at Quebec to section foremen between Quebec, La Tuque and Chicoutimi, illustrates well the modern co-operative attitude of railway companies in forest protection work. Experience has shown that it is to the advantage of the railways to co-operate closely with the forest protective associations, and with the provincial and Dominion forest services in this work and that excellent results are secured in this way in reducing the forest fire losses. The circular in question is as follows:

Quebec, May 17th, 1918

Circular No. 20

ALL SECTION FOREMEN:

In case of fire I want you to assist the fire rangers when called upon.

According to an arrangement between this company and the heads of the St. Maurice and Laurentian Forest Protective Associations in connection with the fire patrol and care of fires in every respect, you will arrange to co-operate with these people by all possible means, therefore, should the fire ranger happen to call upon you for assistance, do everything possible to give him what assistance you can and as *quickly as you can*, because, by acting promptly, fires are often controlled before any material damage is done.

It has also been arranged with fire rangers in certain districts to assist the section foremen in burning grass, old ties, etc., this with a view of showing sectionmen the proper methods of doing this work, and as you are aware many times when foremen undertake to burn the right-of-way, they do not always take all the necessary precautions to look after the fire and in many cases this involves a lot of extra work, due to carelessness in burning the right-of-way.

The object in co-operating with the men employed by the associations named above, is to learn the best methods and obtain the best results, as well as eliminating a lot of trouble. Therefore, I trust you will give all necessary assistance when called upon and be governed by their instructions with regard to fires in the future. As these people are desirous of assisting us in our work we should also be anxious to assist them in carrying out their part.

H. B. CASSIDY,
Roadmaster.

Oxford county, Ontario, produced eight and a quarter million pounds of cheese in 1917 as compared with ten and a half million in 1910. The county also has five milk factories of fairly recent establishment.

The Ontario Railway and Municipal Board has issued an order limiting the use of natural gas. No consumer may use more than 5,000,000 cu. ft. a year.

Laughed at for 20 Miles

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his place that he had quite a snug sum in the bank.

"When we took up farming, all the neighbours watched everything we did, and many of them thought we were crazy. Now those are the ones who come over to see how we are doing things. When some of the neighbours would drop in at the week-end and see my wife and myself entering up our farm accounts, they went away and joked about it for 20 miles around. But at the end of last year when I could stand up and tell them what the farm had cost, what we got back, and our net profit, they became interested, and now some of them are keeping close tab on their incomes and expenditures.

"On the other hand, there are farmers—and they are the most successful ones—who keep accounts as they should. If farming is run as a business, it should be run in a business-like way. But you've got to show farmers that it is to their advantage to keep accounts. They've got to be shown that they can't keep accounts in their heads. They may say that they haven't time to keep books; but if they would only start, they would find that it takes only about half an hour a week to itemize the memos made during the week.

"They also should keep track of their living expenses. For instance, if we take half a dozen eggs for a meal, they are charged against household expenses. If we dig up a peck of potatoes, they are charged up; if we cut ten cents' worth of lettuce, it is charged up. Farmers would think that was foolish, and perhaps it is for a farmer; but we do it in order to see how much cheaper it is to live in the country than in the city; for we live in Toronto during the winter.

"Another thing every farmer should do is to have a plan of his farm, showing every field—not necessarily an elaborate blue-print, but a rough sketch. He then can sit down and can plan his crops for four or five years ahead, marking each field on his diagram with the crop to be grown each year."

What Co-operation Did

(Continued from page 29)

This includes the long-term elementary schools, circulating schools, travelling experts, school and state bulletins, farmers' clubs, educational camp meetings and the University of Copenhagen. There are now 70 high schools and 29 agricultural colleges in Denmark and old as well as young people attend them—the former for periods of a week or two at a time for the purpose of studying social problems and kindred subjects as they appear in other countries all over the world. After completing the high school and agricultural college courses students enter the University of Copenhagen. There they come to understand the complexity of modern business and to regard agriculture not only as a science of production, but as a system of distribution.

The success of rural co-operation depends in a very large measure upon the terms and conditions of land

tenure. Co-operation cannot well succeed in a country where tenancy predominates. In Denmark, legislation has been in operation for a number of years providing for the acquisition of land upon 50-year loans at four per cent. At this rate, a labourer who has one-tenth the purchase price of a parcel of land can borrow the other nine-tenths, either from a state bank, or from one of the 536 co-operative savings banks. There are approximately 240,000 farms in Denmark, averaging a little over 40 acres each, and varying in size from 1½ acres to 150 acres, not including a few large estates. Thus it will be seen that land is not so evenly distributed as to destroy personal initiative, one of the dangers pointed out by the opponents of co-operation. On the contrary, co-operation in Denmark has encouraged personal initiative and, in doing so, has checked the evils of individualism, a most important and beneficent result.

Agricultural co-operation began in Denmark in 1882 when the first co-operative creamery was established. Practically all the milk produced is now handled by the hundreds of co-operative dairies. These, with the aid of co-testing associations have made Denmark one of the leading dairy countries of the world. Danish butter has, for a generation at least, commanded a premium on the British market. Then, too, co-operative bacon-curing and egg-export societies have developed the pork and poultry industries respectively in splendid fashion.

Co-incident with the growth of co-operative marketing there has developed co-operative wholesale purchasing of such commodities as seeds, fertilizers, machinery, and, in fact, every necessity for the operation and upkeep of the farm. In 1908, the central wholesale agency transacted a business valued at \$17,500,000.—*Abstract from Circular No. 259, Illinois Department of Agriculture.*

WINNIPEG REDUCES FIRES

In its recently published report on *Fire Waste in Canada*, the Commission of Conservation states that over seventy per cent of the fires occurring in the Dominion might be avoided by greater carefulness on the part of property owners. This conclusion is strikingly substantiated by a recent experience in the city of Winnipeg. For two weeks the Fire Department was on strike and the Citizens Committee of One Hundred in every possible way urged the exercise of extra vigilance by the occupants of property. As a result, there were only 56 fire calls and 17 actual fires, as compared with 127 alarms received during the corresponding two weeks of 1917. The prohibition of fireworks on Victoria Day was largely responsible for the fact that no alarm for fire was received on that day. This experience should prove instructive to every city and town in Canada.—*J. G. S.*

In New Zealand, where particular attention is given to child conservation, the infant death rate has been steadily lowered, and for some years past has approximated 50 per thousand.

Factors in Production

9. Parcel Post Marketing

Marketing is an important, and is often neglected, factor in production. Unless the producer can place his commodity in the hands of the consumer to the satisfaction of both parties in the transaction, production is sure to decline. Further, it is desirable for the producer to seek out the market that will yield him the best returns, not only for individual sales but for a series of transactions covering as long a period as possible.

In the marketing of farm products these elemental phases of trade are frequently neglected. Many farmers are willing to accept what the local store or market is willing to offer for their produce. In such transactions it is seldom that an adequate allowance is made for quality and for the reason the practice tends to stultify any effects at improving the product. In the past, distance from good markets, bad roads and poor accommodation generally, as well as lack of co-operation, have made it difficult, if not impossible, for farmers to do other than turn their products over to a line of middlemen. This resulted in the producer receiving minimum prices while the consumer frequently paid unnecessarily high ones. Where it can be applied, co-operative marketing tends to overcome these defects. Frequently, this is not possible and in such cases, if the individual producer has not already a fairly satisfactory market, he will find it greatly to his advantage to seek out new ones. For this purpose the parcel post should prove of great assistance. At first it may only be possible for the farmer to deal with friends or relatives in the nearer cities. But gradually, by means of satisfactory service and judicious advertising, markets may be readily extended. Farmers have neglected advertising too long.

The parcel post regulations in Canada permit the shipment of almost every variety of farm produce, if packed according to directions, which can be obtained from any post office. Parcels are limited in weight to eleven pounds, so that such bulky products as potatoes can hardly be marketed to advantage in that manner. But butter, eggs, honey, meats, chickens, many kinds of garden truck and fruit can be shipped by parcel post satisfactorily.

Housewives appreciate farm produce which they know to be fresh and the parcel post offers a means of direct dealing between producer and consumer with profit to both. Of course, the produce sold directly by the producer to the consumer will probably always be a comparatively small percentage of the total food supply, but the parcel post system is rapidly growing in favour in the United States and is well worth a serious trial in Canada.—*A. D.*

Buy War Savings Certificates.

**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 proper conservation, and the publication of timely articles on town-planning and public health.

The newspaper edition is printed on one side of the paper only, for convenience in clipping for reproduction.

OTTAWA, AUGUST, 1918

CONSERVE THE KIDDIES

There is a close relationship between an increased cost of milk and infant mortality. This was proved by the investigations last year of the American Commission on Milk Standards.

It was found that the use of milk had been entirely discontinued in many families among the poor and its place was being taken by baby foods, evaporated or condensed milk, potatoes, macaroni, tea and coffee. In other families, cheaper milk of a poor quality had been purchased for infant feeding. The increased mortality from diarrhoeal diseases is believed to be due in a number of cities directly to the decreased amount of high-grade milk purchased by mothers for infant feeding as well as by the substitution of cheaper grades of milk.

The work of the pure milk depots, hospitals and other agencies that provide modified or certified milk for infants of all classes at reasonable prices is one of national importance and value. The country as a whole must assist in conserving the kiddies. If it would do its duty on behalf of posterity.

WHO RUNS YOUR FARM?

"The government runs my farm, and I am quite willing to let them do so." This spoke a farmer whose financial credit balance is represented by six figures. He has made a practice of reading and adopting the results of the government's experience on the experimental farms, both Dominion and provincial, and has been rewarded handsomely.

This farmer was instrumental in forming a farmers' club in his neighbourhood and securing lectures by the travelling representatives of government agricultural departments. He took advantage of these by adopting the good points from each. A government report advocated the installation of lightning rods on farm buildings. He put them on his buildings and advised his neighbours to do likewise. Some of them followed his lead; others ridiculed the idea, one of whom lost his buildings the following season by lightning. Neither was he too proud to make arrangements with the town store and lawyers to supply them with straw free for that he might haul away the manure from their stables, and thus keep his land up to the highest producing point. He did not consider it too much trouble to so clean

his seed that he could demand \$1.50 per bushel for his oats as seed, while his neighbour was getting but 65 cents.

Farming means production, just as truly as does manufacturing. The farmer, however, has an advantage over the manufacturer in that the latter must make his own experiments; he must pay for his experience. If the results of his experiments are satisfactory, they may produce financial returns fully warranting the outlay. If they are unsatisfactory, the expenditure upon the investigation is lost, and, in many cases, means ruin. How different is the farmer's position! Canada is making the experiments for the farmer, Canadians—the manufacturer, the mechanic, and every resident of Canada—are paying the cost of securing the experience by which the agriculturist may, personally, be the gainer.

It is only too true, however, many of our farmers neglect to profit by the help thus provided. Innumerable bulletins are left unread, and the information they contain is not utilized.

DEVELOP THE FISHERIES

"Practically all fish are edible and in general they are equally nutritious, the chief difference in that respect being in the fat content, which varies not only with the species but seasonally." That is the dictum of Dr. H. F. Moore, Deputy Commissioner, U. S. Bureau of Fisheries.

Surely it is a great misfortune that only a small percentage of the several hundred species and sub-species of fish to be found in the waters of the northern hemisphere find any demand on our markets, especially during the present world shortage of meats. It is a condition that has resulted from the conservative attitude of fishermen and fish dealers in failing to educate the public concerning the food value of hitherto unused species; and also in the proper methods of handling and cooking fish that require special treatment to prepare them for the table. Happily, the action of food boards in Europe and America is rapidly changing the situation. Already, many so-called "new" varieties of fish are finding their way in the fish markets and many others will in due time meet with a similar success. The time is most auspicious for a great expansion of the fisheries industry and it is devoutly to be hoped that those engaged in it will avail themselves of the opportunity.—A. D.

RURAL LIFE PROBLEMS

"Get together" is a useful and worthy motto for the farmers of Canada. Many of the disadvantages that have handicapped rural progress in the past have been the result largely of a lack of co-operation among farmers themselves. Local suspicions and jealousies made mutual trust, the keynote of all co-operative effort, impossible. Happily, there are now many agencies at work that are each accomplishing something in changing these conditions. Among these, the Rural Community Life Institutes in Ontario give promise of being of great service. These are really extension work of the Department of Rural

Sociology of the Ontario Agricultural College. A series of conferences is held at strategic points throughout the province each year at which experts in agricultural work and conditions discuss with rural ministers, teachers, leading farmers and others the methods that experience has shown to be most valuable in bettering rural conditions. The interest shown in these meetings indicates that these community leaders recognize the existence of rural social problems and are anxious to find the wisest solutions for them. It will be a great day for Canadian agriculture and for the country generally when farmers will get together for the study of their common problems and, without malice or suspicion, work together for the common good.—A. D.

SALVAGE OF WASTE

Applied science is capable of producing the most diverse results. As a factor in war it has devised and developed all manner of engines of destruction to such an extent that war and applied science now seem almost synonymous. Co-incident with that phase of its activities, it has led the way in conserving vast quantities of products formerly looked upon as refuse. In all the warring countries, strong organizations have grown up, each with a view to saving and utilizing to the best advantage, practically everything that formerly found its way to the incinerator or rubbish heap. Science and four years of war have rendered obsolete the advice to "burn all refuse". Waste paper, wood waste, tin cans, kitchen grease of all kinds, meat and fish bones, asphalt refuse, clinkers, etc., are all being used to a profit over the cost of transmitting them into useful materials. The result has been the conserving of basic materials as well as marked savings in shipping tonnage. Science is constantly perfecting processes for the more economical handling of all such waste materials, so that in time the incinerator and town dump will be viewed as relics of a pre-war prodigality.—A. D.

New London, Conn., has adopted a unique but effective means of curbing profiteering in house rents. A board has been formed consisting of public spirited citizens of standing, including lawyers, real estate men, manufacturers and other who meet daily in sub-committees of three to hear complaints of tenants regarding extortionate rents. If a tenant makes out a case the sub-committee requests the landlord to attend to give his side of the case. If he refuses, or if a plain case of rent profiteering is made out against him, all the facts are published and public opinion is allowed to do its work. The plan has proved most effective.

Prof. Robert C. Wallace, head of the Department of Geology and Mineralogy of the University of Manitoba, has been appointed commissioner of Northern Manitoba. In his new position, he will be especially concerned in the development of the natural resources of Northern Manitoba.

CANNING DON'T'S

Don't start canning until you have the right appliances.

Don't use old screw-tops. Buy new ones.

Don't use old rubbers. New ones are cheaper than allowing fruit to spoil.

Don't use two-quart jars. Use quart size. Pint size is best for a family of not over five members.

Don't neglect cleanliness—clean person, clean room, clean apparatus, clean work. Cleanliness counts fifty per cent.

Don't plan to can more than three to six jars of fruit or vegetables the first day. Speed up gradually.

Don't assume that the water surrounding the jars will keep boiling without attention to fuel. The right temperature must be maintained for success.

Don't mistake simmering water for boiling water. "It was boiling just a minute ago", doesn't meet the requirement of boiling water at the moment of using.

HOW TO CAN TOMATOES

Select fresh, ripe, firm tomatoes. Grade for size, ripeness and quality. They will cook better if the same degree of ripeness and quality, and will look better. Wash, scald one-half to one and one-half minutes or until the skins loosen, but do not break. Scald means to immerse in boiling water. Cold dip, but do not allow them to remain in the cold water. Cut out the stem end, taking care not to cut into the seed cells or the seed and pulp will later be scattered through the liquid. Remove the skins.

Pack the tomatoes whole in the jars, doing one jar from the beginning to placing in sterilizer, before starting on another. Shake down well, hitting the base of jar with palm of hand, and also press with a tablespoon, but avoid crushing.

Do not add water. Hot tomato pulp may be added, otherwise add no liquid whatever. Tomatoes are an exception to the general rule of hot water for vegetables and hot water or hot syrup for fruits. A large part of the tomato is water. It is not necessary to add anything but one level teaspoonful of salt to each quart, and, if liked, one-half tablespoonful of sugar. The tomato pulp for home canning, made from large and broken tomatoes, cooked and strained, should have one teaspoonful of salt to each quart, and should be poured hot into the filled jars, allowing it to enter the spaces.

Put on rubber and top, adjust top bail or screw top with thumb and little finger. Sterilize 22 minutes in hot water bath, or 16 minutes under five or ten pounds' steam pressure. Remove, tighten, seal and cool.

Government Railways Fight Forest Fires

Co-operative Effort on the Part of Government and Forest Service in Quebec

The management of the Government Railways is taking a much more active interest than ever before in forest fire protection along their lines, long a source of dissatisfaction to timber owners. Under a new arrangement between the management and the province of Quebec, protection will be furnished the forests along the Trans-continental railway, in the Abitibi district, between Parent and the Ontario boundary, hitherto afforded but little protection from fire. At the direction of the Minister of Lands and Forests, and with the co-operation of the Government Railways management, the Quebec Forest Service has arranged for the placing of five power speeders, with two men for each speeder, on the railway between Parent and the Ontario boundary.

This is a valuable pulp wood section, and the hazard is increased by the presence of many settlers, busily engaged in extending their clearings and marketing pulp wood, as well as in cultivating crops on lands already cleared. The danger from these settlers' clearing operations is minimized by the presence of some eleven fire rangers between Nottaway and La Reine, who patrol for fires and enforce the provisions of the law which prohibits the setting out of fires without a permit from a forest officer. Three portable fire pumps are to be purchased, with 1,500 feet of linen hose for each. Provision will be made at Amos for storage and maintenance of all this equipment.

The Government Railways management has also given the Quebec Forest Service the authority to inspect fire-protective appliances on their engines operating in forest sections in that province. The Forest Service has a special inspector for this and he will now divide his time among the Government Railways in Quebec, the lines of railway subject to the jurisdiction of the Railway Commission, and lines holding provincial charters. This outside inspection has been found by experience in Quebec and elsewhere to be of very great value in preventing the occurrence of fires due to railways.

The Government Railways management is also co-operating with the St. Maurice and Southern St. Lawrence Forest Protective Associations in maintaining a special fire patrol through forest sections between Parent and Quebec, and between Quebec and the New Brunswick boundary, respectively.

For right-of-way clearing to reduce the fire hazard, the Government Railways have employed an extra gang of 22 Indians to cut brush and dispose of inflammable debris between Parent and La Tuque. Labour is so scarce in that district that the hiring of the Indians was the only way to get the work done.

These developments, taken in connection with those of a similar char-

acter in New Brunswick and Ontario, show conclusively that the Government Railways management is taking a much more active interest in forest fire protection than was ever the case in previous years.—C. L.

SAVING MILLIONS BY SPENDING THOUSANDS

As a result of thorough drilling and instruction in fire fighting methods, together with the use of modern extinguishing apparatus, employees of the Pennsylvania railway system in 1916 were enabled, by prompt action, to save more than \$14,000,000 worth of the company's property from destruction by the flames. Altogether, the employees extinguished 385 fires during the year before the arrival of the public fire companies. The total loss sustained in these fires was only \$16,437.42, while the value of property in danger was \$14,526,481.00. The average loss sustained was a little more than one-tenth of one per cent.

This illustrates what can be accomplished by proper organization in the prevention of fires. The expense of extinguishment was very small in proportion to the loss which was averted. It suggests furthermore that one of the most urgent needs on this continent is better organization for both private and public business as a means of lessening waste.

BOOKLETS ON CANNING

There is an abundance of literature on canning for free distribution and even the most experienced housewives can get some pointers from it. Here are some useful bulletins which can be had for the asking:

Can, Dry and Store for Victory—Canada Food Board, Ottawa.

Home Canning (Bulletin 252)—Ontario Department of Agriculture, Toronto.

Home Canning of Fruits and Vegetables—Macdonald College, Que.
Canning by the Cold Pack Method—Manitoba Agricultural College, Winnipeg.

Home Canning of Fruits and Vegetables (Farmers Bulletin 853)—Div. of Publications, U. S. Department of Agriculture, Washington.

Canning and Drying Book—National War Gardens Commission, Washington, D. C. (Enclose 2c. for American stamp) for postage.)

The Canada Food Board, Ottawa, will also supply, for 5 cents each, the following booklets which are carefully compiled and attractively gotten up:

Fruits and Vegetables—Canning, Drying and Storing.
Vegetable Recipes.
Bread Recipes.
Fish Recipes.

Winnipeg citizens are saving money by daylight saving. The city light department's receipts were \$12,484 less for May this year than last.

The city of Cincinnati has passed an ordinance making citizens personally liable for damages done to neighbours by fire caused by their neglect or carelessness.

PROTECTION AGAINST FIRE ON THE FARM

In the past, fire-prevention work has been almost entirely confined to cities and the larger towns. The time has come when the campaign must be carried to rural communities and the farms. The demands of war have made the protection of food products from fire an essential undertaking. The Canadian farm is the focal point upon which the future of civilization largely depends.

Special fire protection for elevators, flour mills, packing houses and stock yards, desirable as it may be, cannot save the \$4,000,000 worth of grain, fruits and live stock which are annually destroyed by fire in rural districts in Canada. Up to the present, little attention has been given to fire protection in the village and practically none to fire protection on the farm. As a result nearly every rural fire is a total loss.

The common causes of fires in country districts are lightning, spontaneous combustion in barns, accumulations of rubbish, carelessness with matches, lanterns, kerosene and gasoline, sparks on shingle roofs and prairie and bush fires. In the cities, 95 per cent of fires is reached by fire departments in time to extinguish them while incipient and thus serious damage is averted. When the farmer discovers fire, all he can do is to carry a few pails of water from a well or cistern and throw it on the flames. In the majority of instances, such efforts prove unavailing and the fruits of industry are carried away in smoke and flames. Every farmer in Canada owes it both to his country and to himself to preserve his food products by preventing fire.—J. G. S.

SLASH DISPOSAL LIKELY TO BE MADE COMPULSORY

"One state in the Union now requires slash disposal," says the Kennebec Valley Forest Protective Association in its Sixth Annual Report, "it is practised in all the Federal reserves and in most state reserves, and will probably be required of all lumbermen in a few years. Private protective associations everywhere are discussing complete slash disposal and endeavouring to interest their members in this greatest of all protective measures. It has been shown that the great heaps and windrows of slash left after the close cutting of the present day methods tends to prevent reproduction of the more valuable species of softwoods on a great part of the area it covers. Also, such great quantities of decaying matter has a marked tendency to breed tree diseases and helps produce abnormal quantities of insect pests injurious to tree life. Lastly, if we could eliminate throughout the Kennebec district all the slash left from lumbering during the next ten years, what a tremendous improvement would be noted in the fire hazard. More than three-fourths of our forest fires start in old cuttings."

Good Roads Increase Value of Property

Add From \$5 to \$20 to the Value of Farm Land, as well as Im- proving Social Conditions

In the state of Indiana, the average selling price of land has been increased about \$6.48 per acre by improved roads. The Indiana farmers estimate that improvement of roads would increase average land values \$9 per acre. They estimate also, the average annual loss due to poor roads at 76 cents per acre, which capitalized at 6 per cent, represents a depreciation of \$12.67 per acre. Another inquiry, carried on by the Office of Road Inquiry at Washington, shows that the increase in land values due to good roads ranges from \$5 to \$20 per acre. Nothing can show better than these figures how valuable an asset good roads are.

One of the first things the prospective purchaser of a farm wants to know about a district is the distance from the railway station and the character of the road from the station to the farm. Some branches of agriculture are much more dependent upon good highways than others. The man who is engaged exclusively in the raising of cattle which can be driven for long distances to a shipping station, is, in a measure, independent of the condition of the roads. The grower of corn and any other crop which can be stored for a time without deterioration, can manage to get along, even though the road to the shipping point be impassable at times. He is greatly hampered, however, by the necessity of doing his hauling in good weather regardless of market conditions and of whether or not farm operations are seriously retarded by the absence of himself or his team. For the dairy farmer, the fruit and vegetable grower, and the producer of perishable commodities of all kinds, ability to get his products to market at all seasons of the year and in all kinds of weather is undoubtedly indispensable to success. For all kinds of general farming, therefore, a good country highway is essential to the most profitable operation of the farm and to any considerable development of agriculture at a distance from a market town or shipping station. Other advantages it confers are better school facilities for the children, better rural free delivery service, greater attractions for pleasure seekers and touring clubs, better attendance at country churches and an improved social life on the farm and in the villages.

Primarily, the benefits of good country highways go to the farmer, but less directly they go to the merchants and manufacturers by giving them wider markets for their goods and by decreasing the cost of distribution. In road improvement one of the greatest opportunities for general advancement, and Farmers Associations, Good Roads Committees, Automobile Associations and other can do much to further this work.

—W. J. D.