

Conservation

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It is the business of Canadians to build up Canada by buying goods made in Canada by Canadians

Water Waste in Winter

Running Taps to Prevent Freezing Are Source of Great Danger in Case of Fire

Several cities in Canada are today in a serious position because of the water consumption is equal to the supply. The result is insufficient pressure in the water mains for fire purposes. With the coming of winter weather this situation will no doubt be accentuated, due to leaving taps open, thus allowing the water to run therefrom for many hours at a time, to prevent the pipes freezing.

Not the least of the many advantages which cities have derived from the installation of water meters is the reduction of this heavy waste during the winter months. With the introduction of water meters, consumers have realized the value of having water pipes protected from frost. This precaution usually entails very slight expense, but where there is no check on the water consumed, lack of public spirit keeps people from undertaking the frost protection.

Water and waste pipes should be once be carefully looked after and protected, and particularly where they are exposed to cold drafts. They should be well wrapped and kept thoroughly dry on the outside. As an additional precaution, pipes may be enclosed in a box and well packed with sawdust.

The quantity of water wasted by a small stream left running under average water pressure is as follows:

| |
|--------------------------------------|
| 1/2 inch leak wastes 8 gal. per hour |
| " 3/4 " " " 13 " " " |
| " 1 " " " 17 " " " |
| " 1 1/2 " " " 24 " " " |
| " 2 " " " 34 " " " |

On the basis of the local water rates, it is easy to figure out the actual cost to the city of these running faucets, and, also, the almost criminal neglect when compared with the small cost of overcoming this waste. Meter installation is now recognized as one of

Supplementing Canada's Meat Supply With Fish

In Canada, owing to the abundance of game and live stock, fish has not been given the place as a staple food, that its excellent dietary qualities warrant. The growing scarcity of meat, and its consequent increase in price, must bring the question of supplementing the supply to the fore.

Canadian coastal and inland waters are filled with many varieties of food fishes. The sea fisheries especially are capable of great expansion, and the building up of a fresh sea-fish trade throughout the country should prove an important factor in reducing the cost of living.

A table giving some comparative food values and costs of staple foods follows:

| Kind of Food | Price per lb. | Amounts for 10 cents | | |
|----------------------|---------------|----------------------|-------------|-----------------|
| | | Total weight lbs. | Protein lb. | Units of energy |
| Codfish, whole fresh | 10 cents | 1,000 | 0.111 | 209 |
| Halibut | 18 | 0.556 | 0.085 | 253 |
| Codfish, salt | 7 | 1.429 | 0.229 | 437 |
| Salmon, canned | 12 | 0.833 | 0.162 | 547 |
| Beef, sirloin steak | 25 | 0.400 | 0.066 | 380 |
| Mutton chops, loin | 20 | 0.500 | 0.068 | 664 |
| Smoked ham | 22 | 0.454 | 0.064 | 729 |

These amounts are based on the prices given in the first column and would vary as the price varies. The prices are actual quotations. From these figures it will be seen that, while fish is poorer in protein (nutritive nitrogen) pound for pound than meat, its uniformly lower price makes it a cheaper food. Thus, in the instances presented in the table, it would be possible to purchase 111 lbs. of protein in the form of fresh codfish, for ten cents, a sum which would only procure 0.68 lbs. of protein in mutton chops. Or to express it differently, a pound of protein purchased as fresh codfish would cost 90 cents, while if it were purchased as mutton chops it would cost \$1.47.

In the matter of units of energy, however, fish, for the most part, does not make such a good showing, but, where a fish diet is properly supplemented by cereals and vegetables, foods which are rich in heat producing elements, it makes an excellent substitute for meat, at the same time adding wholesome variety to human diet. From the standpoint of health as well as economy, Canadians should develop the home market for fresh fish.—A.D.

the best means of preventing water waste. Where meters have been installed not only has it been followed by a marked reduction in the amount of water required for general consumption, but it has been possible to maintain a more satisfactory pressure for fire-fighting purposes.]

[Belgrade, Servia, with a population of 75,000, has had an average annual fire loss for the past ten years of only \$11,700.

Lecturers from the Commission of Conservation will attend meetings of Farmers' Clubs early in December at Gould, Canterbury, Cookshire, Island Brook and Scotstown, Que.

Let all Canadians, men and women, young and old, show their patriotism and make Canada strong and prosperous by buying made-in-Canada goods, thus providing work for [Canada's sons and daughters.]

Ventilation of Street Cars

Greater Attention Required by Employees to the Sanitary Condition of Cars

The cold weather and the necessity for heating street cars, calls attention to the question of their proper ventilation and sanitary condition. At times very much overcrowded, the street car is a prolific means for the propagation and spreading of disease. Too much attention cannot be given to the care of the cars. Spitting is prohibited in the cars in most cities, but, with the introduction of the pay-as-you-enter car, the conductor is not in the same position to check this nuisance as formerly. The conductor should also give careful attention to ventilation. The upper windows are put there solely for the purpose of ventilation, and these may be opened without the risk of creating a draft and causing passengers to feel uncomfortable. If conductors would give this matter attention, it would obviate the necessity which some passengers feel of opening the lower windows for the admittance of fresh air. This, while accomplishing the object sought by the passenger at the window, creates a strong draft, which is decidedly objectionable to those in the rear.

Conductors should be instructed as to the proper ventilation of their cars; they should be the only persons authorized to open or close windows, and a notice to this effect should be posted in the car. The company should, however, insist that their employees give ventilation careful attention.

Conductors could also with advantage give their cars closer inspection to check the spitting on the floors. They have ample time between stops, and this inspection would add very little to their duties.

Street cars should be thoroughly cleaned and disinfected when taken off the run at night.

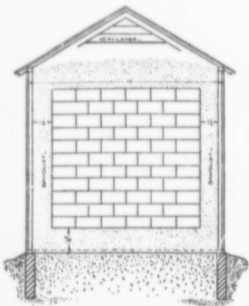
Buy made-in-Canada goods and help toward the full dinner pail.

The Farmer's Ice Harvest

The Benefits to be Derived From an Ice Supply—Ice House and Dairy Plans

One of the natural resources of Canada, and one which is of great benefit to humanity, is the annual ice crop. While in towns and cities, almost universal advantage is taken of the ice supply, such is not the case with farmers.

A good supply of ice is more important in the country home than in the city home. People in the



Cut No. 79
Front view, in section, of ice house. The dairy is built in the form of a lean-to at rear.

city can purchase perishable food supplies as needed, while, in the country, it is often necessary to use canned, corned or smoked meat products during the summer, when the table should be supplied with fresh meats. Ice could be used to preserve meat, butter, and other perishable products for the table. The production of high grade dairy products on the farm is almost impossible without ice. Many markets require that, before shipment, the milk be cooled to a degree attainable only with ice. There are many excellent and healthful dishes that may be prepared for the farm table if a supply of ice were at hand.

In many sections of the country, the luxury of an ice supply can be had for the gathering; the cost of harvesting and storing is small, compared with the utility.

Farmers in the neighbourhood of summer resorts may, with considerable profit, undertake to supply ice to the residents during the summer months, or, when harvesting their own supplies, may fill private ice houses in the winter.

In selecting a stream or pond from which the supply is to be taken, care should be exercised to obtain ice free from contamination or pollution, and free from decaying vegetable matter. The latter is very objectionable because, as the ice melts, it will be left in the ice box, rendering it filthy and dangerous to health.

For the proper storing of ice

several points must be carefully considered. (1) Expose as small a surface as possible to the air or to the packing material, that is, have the ice piled so as to form, as nearly as possible, a cube; for example, a mass of ice 12x12x12 feet exposes less surface than the same tonnage piled so as to cover a larger area. (2) Good insulation is necessary; that is, the ice should be protected from external influences such as heat and air. (3) There should be good drainage because the lack of it interferes with insulation. (4) The ice should be packed so as to prevent the circulation of air through the mass.

The more solid the mass of ice can be made, the better will it be preserved. An expensive structure is unnecessary for the purpose of storing the ice crop. The accompanying illustrations show the construction of a simple ice house, as also a combination of ice house and refrigerator room. These are very simple and may be erected by any farmer.

On many farms, there are places in the buildings which could be used for storing ice. A silo which has been emptied by February might be used. Ice can usually be stored at a time of the year when there is little other pressing work

Heating by Electricity

Price Reduction and Storage Facilities Necessary for its Economic Use

Heating of homes in Canada, on account of our severe winter climate, is a matter for serious consideration. Little advance can be looked for at present in appliances for heating, as, with the fuel in use, the methods of converting it into heat are numerous and, on the whole, satisfactory. In this, Canada is far ahead of European countries, and for this reason we are not prosecuting research into the field of newer methods of heating with the same eagerness shown by some of the countries of Europe.

Heating by electricity is one way of solving the house-warming problem but before it can become profitable in Canada, two important difficulties have to be overcome.

In the first place the price of electrical energy used for heating purposes must be enormously reduced. To secure this price reduction it will be necessary to utilize what at present may be

of electric energy for heating look forward to electric heating as an economical proposition. While the price for electricity used for this purpose has not been definitely determined, that proposed is \$6.70 per h.p. per year.

Considerable interest has also been aroused in Sweden by the results of experiments to obtain electric heating at a reasonable cost. The ordinary heating system now used in that country consists of large tile stoves, built in almost every room and designed to burn wood. The heat-retaining properties of these stoves is so great that, although the wood burns out very quickly, the heat from a single firing is retained from 12 to 15 hours. It is proposed to take advantage of this property, by means of portable electric-heating elements, inserted in the ordinary combustion chamber, which will produce during the night sufficient heat to last throughout the following day. In one locality the cost of electrical energy is stated to be \$8.80 per h.p. per year, plus some minor charges; while in other localities the energy used for heating is as low as 2-3 cent per kilowatt-hour.

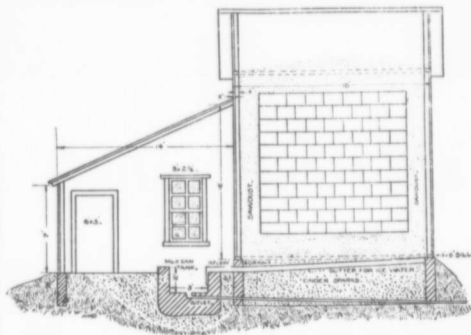
In these countries, a sufficient reduction in rates has evidently been made and they are now turning their attention toward convenient means of storage.—L.S.D.

Fire Protection

In autumn and early winter fires are more frequent on the farm than at any other time of the year. Much of the work in stables and barns is done by artificial light and, no matter how careful the owner may be, accidents will happen, or, hired help, regardless of consequences, may smoke somewhere on the sly, with the possible result of a fire. During October, according to the *Monetary Times* reports, 23 homes and 21 stables and barns were destroyed by fire.

No matter how adequate the fire-fighting appliances may be, one of the first and most useful is a bucket of water at hand whenever wanted. A bucket of water at the right time and in the right place may save your barn or house. Few farmers think of this.

Best of all is a bucket of water at the start of a fire than the resources of a city fire department when the fire has gained headway. Fire buckets can be purchased with round bottoms which, on account of their shape, are inconvenient for general use. These may be placed in a round hole cut in a shelf or bench. They should be covered and regularly inspected to assure their being kept full. To prevent freezing, two pounds of fused calcium chloride to the pail may be used. This will suffice for the purpose for all temperatures down to zero. If the buckets are painted red, they will be more conspicuous and also a constant reminder of the danger of fire.



Cut No. 80
Sectional view of combined ice house and dairy. For ice house only the lean-to section and lower drain may be omitted.

on the farm! Now is the time to prepare for laying in a supply of ice for use in the hot season of the year.

Full particulars regarding ice cold storage on the farm are contained in bulletin 207 of the Ontario Department of Agriculture, and may be had by applying for same to the Department at Toronto.—F.C.N.

Ex-Governor Glynn, of New York State, in his last annual clean-up proclamation, said: "It takes the wheat crop of the United States to pay for the fire waste of the country, as the net gain to the nation barely offsets the average annual fire loss. The fire waste amounts to \$2.50 for every man, woman and child in the country, and 65 per cent of it can be prevented by known means."

termed waste current, or, in other words, to use electrical energy at certain times during the day or night when it is not being used for other purposes which justify a higher price being paid for power, lighting, etc.

A further drawback to the profitable use of electrical heating is the absence of a practical and satisfactory means of storing either heat or electrical energy to carry the service over the time when the electric current is being used on more profitable work.

In this connection it is of interest to note some of the initial steps now in progress in certain European cities. At Stavanger, Norway, with a population of 38,000, so much of the city's available electric power goes to waste or is unused, except between the hours of 4 and 7 p.m., that both the city and the prospective purchasers

Commission of Conservation

CANADA

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CONSERVATION is published about 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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OTTAWA, DECEMBER, 1914

According to *Safety-Engineering*, about twenty-five per cent of the accidents recorded under the British Compensation Act were due to insufficient lighting of industrial shops.

If the men and women of Canada would buy Canadian-made goods exclusively, all Canadian workmen would be back at work. Charity begins at home, and this is both charity and good business.

The flowing waters of Canada are, at the moment, apart from the soil, our greatest and most valuable natural resource. They are more valuable than all our minerals, because, properly conserved, they will never be exhausted; on the contrary, they can be increased.

The Supreme Court of Pennsylvania has decided that the amount of damage collectible on growing timber set on fire through negligence is not only the value of the wood destroyed, but also the injury to the property as a whole through the destruction of the young growth.

Early in November Mr. Nunnick, Agriculturist of the Commission of Conservation, visited Ayers Cliff, Que. at the request of the Farmers' Club. So great was the interest manifested in better farming that Mr. Nunnick was kept on his feet for two and a half hours explaining methods and answering questions.

Under modern systems of sanitation we make use of water for flushing sewers, carrying away and destroying the most valuable of fertilizers, and at the same time polluting the water into which it is carried. This may be characterized rather as a monumental misuse than as a use of water.—Hon. Clifford Sifton.

CANADA'S FISHERIES

Few Canadians appreciate the fact that the waters in and around Canada contain the principal commercial food fishes in very great abundance. Such fishes as the cod, halibut, mackerel, herring, haddock and sardines are taken from Canadian waters in immense quantities every year, while the salmon and lobster fisheries have world-wide recognition.

Owing to the many large indentations Canada's Atlantic coastline measures fully 5,000 miles from the strait of Belle Isle to the bay of Fundy, and the Pacific coast-line is 7,000 miles in length. All the territorial waters along these coasts have abundance of food-fishes. During the fiscal year 1912-13 the inshore and deep-sea fisheries produced fish having a market value of \$29,315,772, and the product of the inland fisheries was valued at \$4,073,692, making a total of \$33,389,464. Of this amount, British Columbia produced \$14,455,488, an indication of the value and extent of the salmon and halibut fisheries of the Pacific province.

Another almost totally undeveloped fishery is that of Hudson Strait and Hudson Bay. The Dominion Government has had its fishery officers in these waters during the past two years. The cod and salmon fisheries at Port Burwell, in Hudson Strait, are capable of considerable development and in time will prove to be of great value. No official reports are as yet available regarding the fisheries of Hudson Bay. Enough is known, however, to clearly indicate that not only the fisheries of these northern waters but the other deep sea and inshore fisheries of the east and west coasts are capable of great expansion. For this reason the action of the Department of Marine and Fisheries in endeavouring to extend the markets for fresh fish will doubtless add steadily to the importance of a great Canadian industry.—A.D.

THE WAR AND FOREST PRODUCTS.

The pulp and paper industry in Canada will profit greatly from the war situation. An increasing demand for Canadian supplies is already noted, due to the general stoppage of European supplies. It is probable, also, that a market will be developed for a large amount of small-sized timber, to be used as pit-props in the mining of coal in the British Isles. The usual supplies from the Scandinavian countries are, at least temporarily, cut off to a considerable extent. Eastern Canada has vast quantities of timber suitable for mining purposes, and the securing of this market would mean a very large development. On the other hand, the demand for lumber and building materials has fallen off seriously, on account of the general cessation of building operations.

FIRE WIND FORECASTS

On the Pacific slope in the country west of the Rockies, the dangerous winds which, during the summer, are likely to cause widespread and destructive fires, commonly result from high pressure areas in northern British Columbia, traveling southward towards Washington and Montana. Passing wholly over the interior, such a wind has but a small moisture content, and consequently is very drying. To forest protective organizations, the value of warning respecting such winds, before they arrive, is obvious.

Co-operation with the Government Weather Bureau to get forecasts of such winds was initiated in the United States by the Western Forestry and Conservation Association.

This co-operation work has been extended until now it includes both the Canadian and United States Weather Bureaus. The fire wind forecasts are received daily and used through the fire season by the British Columbia Forest Service in Canada, and in the Pacific States, by the United States Forest Service, the various State Forest Services, and the many private forest fire protection associations of which the Western Forestry and Conservation Association is the central body. The system has proved very useful to the British Columbia Forest Service this summer, but is, at present, of greater value to the protective organizations in the States, because there the much greater number of weather stations enables the forecasts to be made more definitely and accurately. With the opening of northern British Columbia by the new railways, such as the Grand Trunk Pacific, Pacific Great Eastern, etc., many more weather stations will be established and the value and usefulness of the weather bureau reports will be increased, both to that province and to the Pacific States. In British Columbia, reports are sent from several of the weather stations by wireless telegraphy. The rapidly increasing use of the wireless telegraph is a most important factor in this work, since it will enable weather reports to be received from a much larger number of stations than would otherwise be possible.—H.T.M.C.M.

RAILWAY FIRE PROTECTION

The Railway Fire Protection Association is a new organization, comprising in its membership a considerable number of the railways of the United States. The objects of this association are to promote interest in and improve the methods of fire protection and prevention, to obtain and circulate information on these subjects, and to secure the co-operation of its members in establishing proper safeguards against loss of property and life by fire, and especially to standardize practices through the interchange of ideas and experiences with regard

to such matters in connection with railway properties.

The work of this association will greatly improve existing methods of railway fire protection. While the association was organized by railways operating in the United States, it is probable that some of the Canadian railways will also become members. The suggestion has been made that the organization of a similar association in Canada would be worth while from the point of view of the railways concerned.—C.L.

CIRCUIT BREAKERS

The circuit-breaker on street cars is doubtless a vast improvement on the old time fuse, but its usefulness would be better appreciated by passengers if it were provided with some sort of silencer. The loud report accompanying the operation or release of some of these is enough to cause a panic on crowded cars. Numerous accidents have resulted to nervous passengers jumping off moving cars through fright due to this cause.

The function of the circuit-breaker is to protect the car equipment from an undue excess of electricity, automatically turning off the power whenever this occurs. Theoretically, the circuit-breaker should operate only on rare occasions, and this is probably one of the reasons why little importance was attached to their noisy operation. In practice, however, it is found that some operate without justifiable cause, sometimes being gradually released by the vibration of the car. If nothing can be done to prevent circuit-breakers from operating as often as they do, some contrivance should be provided to muffle the loud report which is heard when they are released.—L.S.D.

FIRE APPARATUS ON CITY STREETS

A decision was handed down recently by Justice Middleton at Ottawa to the effect that drivers of police patrols and fire fighting apparatus have no legal right to exceed the limit of speed allowed other vehicles on city streets. To enforce the letter of the law may handicap fire departments, as minutes of delay may have serious consequences. The general public can assist materially by seeing that fire apparatus has the right of way on the streets. At junctions of streets pedestrians can warn drivers of vehicles of the approach of fire engines, and thus avoid accidents. Children should be kept off the streets and out of harm's way. It is almost too much to expect the drivers of fire apparatus to exercise the same care as drivers of lighter rigs. Their trucks are heavy, their horses are spirited, and time is their most important consideration. The assistance of the general public will, therefore, be of untold value, both to the fire department and to the cause of public safety.

Reduction in Fire Losses

Practical Results Obtained in Fire Protection Service by Railways.

As the Fire Inspection Department of the Dominion Railway Commission was not organized until the month of June, the railway fire statistics for Canada for the season of 1912 are not complete. Figures are, however, available for all except the spring fires of 1912. The entire season of 1913 was covered, but the reports for 1914 have not yet been received from the field.

To give a general view of the situation in western Canada in 1912 and 1913, the statistics of the Canadian Pacific Western Lines, Canadian Northern, Grand Trunk Pacific and Great Northern Railways have been combined. These four lines include practically all the railway mileage in western Canada.

The total number of fires reported as having started within 300 feet of the railway track was 196 in 1912, and 467 in 1913. Of these, in 1912, 160, or 82 per cent, were reported as having been started by trains, while in 1913, 295 fires, or 64 per cent of the total for that year were reported as having been due to that cause. While the total number of fires reported in 1913 was greater than in 1912, the area burnt over was less; the figure for 1912 was 25,008 acres and for 1913 only 2,360 acres. The total area burned in 1913 was thus only 9.4 per cent of the area burned in 1912 by fires originating within 300 feet of the railway track. The total value of property destroyed by such fires in 1912 was \$83,380 and in 1913, \$12,250. It will thus be seen that in 1913 the railway fire situation showed a great improvement over that of 1912. There was a material reduction in the percentage of fires caused by trains as well as in the total area burned and value of property destroyed.

While the figures of 1914 are not yet available, it is known in a general way that there has been continued improvement in the railway fire situation, due to the increasingly efficient organization of the railway companies on the one hand and of the Fire Inspection Department of the Railway Board on the other, in the handling of this work.—C.L.

Tree planting in the west is important; the renewing of the white pine is important; the pulpwood question is important; many other phases of the question are important, but the all-essential thing in regard to the question of forests is to get the community wakened up to the idea that at any cost the destruction of forests by fire must be stopped.

Farm Losses

MANURES

The manure problem is a fundamental problem for the farmers of today and tomorrow. One of the most important lessons for them to learn is how to obtain good barnyard manure; and then, to care for it and use it intelligently.

In many parts of Canada, the manure is simply thrown away.



Cut No. 81. Saucer-shaped bottom to barnyard of concrete, preventing loss of valuable liquid manure.

In Ontario, 186 farmers out of 200 visited exercised no care to prevent waste, and in Quebec conditions are nearly as bad. In other places, notably in the west, it is burned; and, in places where the manure has accumulated, the stables have been moved away, instead of making use of the manure. This means a great annual loss. At the present price of plant food, the amount of manure produced in the United States every year is worth nearly \$2,500,000,000. In 1908, the value of the whole corn crop in the United States was only \$1,601,000,000. These figures show the enormous importance of manure production.

The greatest sources of loss are from allowing the liquid portion to drain off, from leaching by rain, and from heating and fermentation.

The liquid is much more valuable in plant food per pound than the solid. In cow manure the total liquid portion is about the same as the total solid portion. Yet many farmers arrange their stables to drain off the liquid. *Don't do it.* In this way from \$10 to \$15 worth of fertility, per cow, can be lost annually.

Where possible, the manure should be spread on the field as made. It saves handling twice, and there is a greater tonnage than at any other time. This can be done provided the land is not so hilly as to cause the manure to be carried away by rain or melting snow. The effect of green manure will be seen for a longer time than that of rotted manure on account of the decomposition taking place in the soil. If this can-

not be done, by all means have a covered shed where the manure can be stored, where it will be packed by stock tramping on it, and where it will be kept moist. If it is kept tramped and moist, and if the shed has a cement floor, there will be very little loss.

Experiments in the west have shown that a very light application of barnyard manure in the spring after sowing, as a top dressing on soils having a tendency to blow, gives excellent results, not only preventing blowing but giving increased yields from the added plant food.—F.C.N.

Larger Profits as Final Result

Temporary Advantage only Gained by Neglect of Systematic Farming

The report of the Commission of Conservation's Agricultural Survey for 1913, specially emphasizes the absence of a systematic rotation of crops in every province. In some of the older districts of Ontario, the rotation followed approaches more nearly to the ideal than in any other portion of the Dominion, but, even there, the area in horse crops is not large enough nor are the rotations arranged systematically, so as to cover the whole tillable area of the farm within a reasonable length of time. In Manitoba, practically no clover and no hoe crops are grown. Although summer-fallowing is commonly practised, yet the continual cropping of wheat from the same field is of too frequent occurrence.

If a western farmer were asked why he does not vary his crops, he would probably answer that he grows wheat because it pays better and that he will continue to grow it so long as it yields him the maximum return. It may be true that wheat yields a higher net return per acre than any other crop and yet this does not justify the raising of wheat on every available field.

Other factors, besides the net return per acre, enter into the problem of the selection of crops. One must consider the effect of a crop upon soil fertility, the demands it

makes upon farm labour, and the necessity of keeping fields free from weeds. It may even be profitable to grow a crop which, valued by itself and without relation to the farm operations as a whole, is produced at an apparent loss. Such a crop must be regarded as a by-product, i.e., as something which is not profitable for its own sake, but which gives adequate returns when produced as a part of a larger enterprise.

For instance, by varying crops it is possible to distribute the year's work more evenly and thus to reduce the cost of labour. The saving so effected should be credited to the apparently unprofitable crop. Or again, it pays to grow a crop at a loss when it exercises a beneficial effect upon the soil, as raising mangels for the sake of the cultivation or clover to plough under to supply nitrogen for future crops. It pays to put good wheat land into pasture for two or three years to kill weeds and to obtain the manure. The same principle applies to live-stock as well as to crops. Hogs may not pay for themselves but they may give handsome returns in conjunction with cows. The principle which the farmer must keep in mind is to so combine his various enterprises that he utilizes his land, labour and working equipment to the best advantage and thus secures the largest net return from the farm as a whole.

Fires and Some Results

According to the reports to the *Monetary Times*, the fire losses for October in Canada were, approximately, \$772,115, as against \$1,383,572 for October, 1913. This shows a considerable decrease, but there is yet room for a further reduction. Seasonal causes were responsible for a large number of the fires. Defective flues, sparks, over-heated stoves, furnaces and stovepipes, together with defective wiring, caused 16 fires out of a total of 35 fires reported in Canada, amounting to \$10,000 or over. All these fires could have been avoided. It is the duty of every person to give special attention to the prevention of fire. Canada needs all her resources for general business conditions. Destruction by fires requires the payment of large sums by insurance companies, but which must, in the end be paid by the policy-holder. Again, the insurance companies do not carry their resources as cash on hand, but have the money invested in interest-bearing securities. In the event of heavy losses the insurance companies must provide money to meet them and to do this they must of necessity dispose of these securities. With the stock exchanges closed this is a very serious problem. To overcome it, the banks have to advance the money, and this again reduces the amount in their hands for the accommodation of the mercantile community and manufacturers.