

Conservation

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Homes Will Help to Retain Farm Labour

Reasons for Hired Help Will Attract a Better Class of Workmen to Farms

Homes are the great stabilizers of civilization. The more advanced industrial methods recognize the value of decent homes in keeping labour hard and thus preventing the heavy losses that result from constant shifting of man place to place. As a result of this recognition, many large industrial concerns provide neat and attractive houses, which they rent to their employees at reasonable rentals. Such cases are usually merely commercial propositions. Homes are provided because it is cheaper to do that than to suffer the losses due to the constant shifting of a more or less dissatisfied labour supply. Similarly, during the war, the Governments of Great Britain and the United States established model towns for the employees of munitions factories and the results in greater labour efficiency have surpassed all expectations.

Herein lies one of the remedies for the shortage of labour on farms. The farm-hand, whether married or single, whether employed permanently or temporarily, is, in most instances, dependent on the home surroundings of his former employer for the comforts and amenities of life. In cases where the farmer knows the difference between *existing* and *existing* this system may not be intolerable, but every efficient labourer desires a home where he can enjoy a reasonable measure of privacy and independence.

Farmers would do well to learn from the experience of industrial leaders and provide simple but attractive and comfortable homes, which could be leased to hired help at a small rental, or simply be used as a special inducement to encourage married men to seek on farms. Unless such advantages are provided, it is useless to complain of the scarcity and inefficiency of farm labour, for the best labourers are sure to seek for employment where they can have homes of their own and only the less competent and inefficient will find their way to the farms.—A. D.

British Columbia derives one-third of her annual revenue from her forests.

The Council of Social Service of the Church of England in Canada has endorsed the proposed formation of a national society to combat venereal diseases.

Nearly 79 per cent of Fire Losses Occur in Large Business Properties

Large Fires are the Important Ones, and Good Fire Prevention Strategy Should Concentrate on Factory and Business Risks—234 Fires out of 15,927 in Ten Months Cause 79 per cent of Losses

Fire waste in Canada is increasing by leaps and bounds. During the first ten months of 1918 the value of property destroyed by fire was 45 per cent greater than during the same period of 1917 and almost 70 per cent greater than in 1914. From January 1st to October 31st, 1918, no less than 15,927 fires were reported, the aggregate loss being \$28,443,200. On the basis of these figures it is reasonably certain that the total for the year 1918 will exceed \$34,000,000. For the whole twelve months of 1917, the losses were \$25,000,000. If, to the direct fire loss, there be added the expenditure upon insurance and municipal protection, fires will have cost the people of Canada the vast sum of \$65,000,000 or more than 19 per cent of the recent Victory Loan. Faced by economic problems of unparalleled gravity can we afford to be indifferent to this tremendous drain upon our national wealth? If not, what steps are being taken to remedy the condition?

In six of our provinces, fire marshal laws have been enacted and departments established to prevent fires. In two provinces, official leagues with

hundreds of members have been formed to spread abroad the gospel of fire prevention. The organized insurance interests including over 10,000 agents claim to be doing their utmost to improve conditions and in every city, town and village of importance throughout the Dominion, fire brigades are maintained to extinguish fire. The question naturally arises, what tangible results are being obtained for the \$30,000,000 annually spent upon the services of this organization?

All our attempts to prevent fire waste in Canada have been ineffective because we lack a concerted plan of decisive action. The problem of fighting fires is analogous to the problem of beating the Hun. Success lies in the mode of attack. At the present time, suspicious fires are being investigated, fire departments are subjected to a great deal of unmerited criticism for fires they cannot control, municipal authorities in general are pilloried for their laxity in enforcing local ordinances and the newspapers are being flooded with articles designed to enlighten the public upon the

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TRY A CAN OF WHALE

"MADAM, I would suggest that you try a can of whale," said the grocer. "You will have heard that 100 per cent of the sockeye and red spring salmon and 75 per cent of the cohoes of the Pacific coast have been requisitioned by the British Government," he continued, "so that salmon is hard to get and even harder to pay for. But whale meat is just as—"

"Oh please don't try to tell me that it is just as good as salmon. I did so want to get some nice canned sockeye salmon. It is always so good."

"Well, I am sorry madam, but it is not to be had for a few days at least. I was going to say that canned whale meat resembles, and so people think it is just as good as tender, lean beefsteak. We are having quite a demand for it. Thank you, madam; I will send up two cans. It is only twenty cents a can."

And so this Boston grocer found another customer for Canadian canned whale. "Till recently, the canning of the flesh of this great, warm-blooded, ocean mammal was looked upon as a doubtful experiment. But, during the past season, it was sold by the carload in Boston, Philadelphia, Chicago and other cities of the United States.

"Perhaps Dame Fashion has had a hand in popularizing many such hitherto despised foods," mused the grocer.

But the threatening famine in Europe was probably a more important reason.—A. D.

Unwise to Speculate With Victory Bonds

Government Urges Bond Holders to Keep Their Bonds Until Maturity, if Possible

Unprecedented success has again attended Canada's Victory Loan. The number of individual subscribers is a credit to Canada, but the investment of savings in this way may lead to many heartburnings unless the people are fully warned of the dangers of speculation and of fake investments to which they will be exposed.

Many bonds were purchased from patriotic motives; many, however, were taken for the higher interest they offered, 5½ per cent, as compared with 3 per cent from the banks. This increased earning capacity of their money may make holders of bonds susceptible to the temptation of promoters and organizers. Advertisements are appearing offering to accept Victory Bonds in payment for real estate. In the United States many owners of Liberty Bonds have been robbed by being induced to exchange them for worthless securities supposed to carry a much higher rate of interest.

Monsieur Choquette, at the annual meeting of the Commission of Conservation in 1916, speaking on this subject of speculation, said:

"Few days pass when farmers, young and old, are not asked to take part in financial concerns, in speculations which dangle untold riches before their longline eyes. The agents are clever and persevering. They have a thousand strings to their bow. Town lots, mining claims, natural gas and oil wells, patents, are all means of enticement, all the more alluring since the risk which accompanies them is hidden more or less honestly under the name of some master of finance, or

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EDUCATION FOR OCCUPATIONS

Education for Occupations is the title of a very helpful address given by Dr. James W. Robertson, Chairman of the Lands Committee of the Commission of Conservation, before the Ontario Educational Association. It is particularly useful in this period of reconstruction. The Commission of Conservation has a few hundred copies and will be pleased to distribute them on request to teachers and others who are interested. Dr. Robertson was head of the commission which investigated the subject of technical education for the Dominion Government before the war.

Reforestation Being Practised in Canada

Progress Made by Private Interests in Quebec—Desirable Public Policy

In all the provinces of Canada, there are large areas of non-agricultural lands which have been so completely denuded of forests by unwise methods of cutting, or by fire, or both, that they are in a wholly unproductive condition, due to the complete destruction of all young growth and seed trees. Only by planting can such lands be restored to productivity within any reasonable length of time and, thus, be made to play their proper part in the economic life of the country.

Nowhere in Canada has such an excellent start been made toward commercial forest planting as in the province of Quebec, and even here the work done constitutes only a small beginning, in comparison with the real needs of the situation. The lead in this direction has been taken by the Laurentide Company, and the Riondon Pulp and Paper Company. Both companies have, for some time, realized the slow progress which nature unaided makes toward restoring the stand of commercially valuable pulpwood species on our northern lands after they have been heavily cut over.

The Laurentide Co. is the pioneer, having commenced planting operations in 1908. Up to the present, a total of 453 acres has been planted up by this company, mostly with Norway spruce and white spruce, with a smaller representation of white pine, Scotch pine, red pine, poplar and other minor species. About 1,500 trees are planted to the acre, so that the total number planted to date aggregates some 680,000. During 1919, the Forestry Division of the Laurentide Co. expects to plant about 500,000 young trees, mostly Norway spruce and white spruce. The programme for 1920 includes the planting of 700,000 trees and, for 1921, 1,000,000 trees, mostly white spruce. The rate of planting is to be increased until it totals 2,000,000 trees per year.

The Laurentide Co. has, in its forests nearby Grandmeur, Quebec, nearly 4,000,000 seedlings of different ages, to be used in planting operations between 1919 and 1921. These will be supplemented by purchases from other nurseries, until the capacity of the Grandmeur nurseries can be increased to cover the entire planting programme of the company. The company's forester, Mr. Ellwood Wilson, reports that the cost of planting, usually with 3-year-old seedlings, is from \$9 to \$10 per acre.

The Riondon Pulp and Paper Co. began its reforestation work in 1916, its forest nursery at St. Jovite, Que., being established the following year by their forester, Mr. A. C. Volkmar. To date, a total of 780 acres has been planted to Norway spruce, white pine, red pine, white spruce and Scotch pine. In the nursery at St. Jovite are 2,180,000 Norway spruce seedlings, 800,000 white spruce, and 200,000 white pine, of different ages. By 1920, it is expected that the scale

of planting will be increased to 1,000,000 spruce and 100,000 white and red pine, and that operations will be continued at this rate, using 3-year-old stock.

Both these companies are confining their planting operations to lands owned by them in fee simple, readily accessible to existing means of transportation. This will give the plantations a high value when the timber reaches commercial size. In order, however, to encourage large-scale planting on private lands, it is imperative that provision be made against excessive taxation. A low annual tax rate, with an added tax when the crop is finally harvested, is most just to all concerned.

The reforestation of denuded Crown timber lands is a problem of large proportions, the solution of which belongs primarily to the provincial governments. The Quebec provincial forest nursery at Berthierville, which has been in existence for nine years, has supplied millions of young trees to private land owners, mostly farmers and pulp companies, including 2,000,000 trees sold during 1918. The Provincial Forester, Mr. G. C. Piché, announces that the capacity of this nursery is to be increased to an annual production of 5,000,000 young trees, partly in contemplation of the Provincial Government adopting a programme of forest planting on denuded Crown timber lands. Action along these lines is imperative if large areas of lands suitable for no other purpose are to be restored to a productive condition. Experience in many countries proves that extensive reforestation of waste lands is a desirable feature of public policy; it pays financially and is vitally important in supporting the economic structure of the country.

—C. L.

Unwise to Speculate

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by an advertisement cleverly inserted in a conspicuous place in a newspaper of wide circulation. It is a veritable scourge, a plague. One must live in the country and hear the wails of the victims, to grasp the whole situation. I do not think that I exaggerate when I declare that in the one county where I live, \$100,000 and more have simply been thrown away by our farmers. Some of these, seized by a fatal frenzy, have not hesitated to sell their beautiful farms, the heritage received from their forefathers, in order to barter the value for a scrap of paper which guaranteed them the ownership neither of an inch of land nor an ounce of silver.

"Can this evil not be remedied? Is it necessary to leave the farmer to learn wisdom at his own expense by becoming the prey of greedy plunderers?"

The Canadian Government strongly advises holders of Victory Bonds to keep them. They represent the savings of the people of Canada. They are a receipt for duty well done on the part of the owner, and should only change hands when it is absolutely necessary for the owner to sell them to secure their value in cash.

How to Qualify for V.A.D. Certificates

Methods for Organizing Classes in First Aid, Home Nursing, etc.

A class in First Aid, Home Nursing, Home Hygiene or Sanitation may be organized in any community in cooperation with the St. John Ambulance Association. According to the rules of this Association, it should consist of not more than 30 members of one sex (except in the case of Home Hygiene, in which mixed classes are permitted). As soon as sufficient names have been secured the services of two doctors should be obtained, one to conduct the lectures and the other to examine the class on its completion. Usually local doctors are willing to render these services free. Such service by the surgeon lecturer makes him eligible for recommendation as an honorary life member of the St. John Ambulance Association on his giving four courses gratuitously.

Each member of the class is assessed a fee to cover the necessary expenses of the course. Roughly speaking, the cost to each individual of a class of 30 members for the full course of five lectures, the examination and the issue of certificates will amount to about \$1.50.

Classes are held not oftener than once a week, at a time and place to be mutually agreed upon, and each lecture and practice should last for two hours. Each class appoints a secretary who is responsible for all fees being paid at the start and must see that a roll of attendance is kept and that all supplies are in their place at the time of the lectures. This officer reports to the Honorary Secretary of the local centre, if such exist, and if not, to the Honorary Secretary of the Provincial Council. On receipt of the fees the examination papers are forwarded to the examiner.

Any further information may be had from the General Secretary of the St. John Ambulance Association, Castle Building, Ottawa.

FISH OILS IN PAINT

Fish oil may be used to advantage as a vehicle for pigments in exterior paints. For interior painting, however, it is not satisfactory, as it gives off noxious gases for a considerable time after it is applied. Those oils which have the least of the characteristic "fishy" odour give the best results. Such oils may be used as vehicles for pigments to the extent of 75 per cent, the remainder of the vehicle consisting of linseed oil.

Fish oil is superior to linseed oil in smoke-stick paint or paint that has to be applied to hot surfaces, since it does not blister. It is also in demand for baking jansens where a certain degree of flexibility is required. It is used, too, in the manufacture of enamelled leather and printing inks.

When red lead is mixed with linseed oil, chemical action follows which causes it to thicken up and become unfit for use in a short time. The addition of properly neutralized fish oil will, however, prevent this hardening

action and preserve the paint in a fresh and soft condition for many months.

Canada Should Seek After-the-war Trade

Canadian Manufacturers Should be Well Represented at the International Fair to be Held at Lyons, France

"Getting business" is a business of itself. After the war most of the European nations will require vast amounts of materials of every conceivable kind, in order to make good the devastation caused by the war. Canada should get some of this business. How much, will depend in large measure on the enterprise of Canadian producers and manufacturers.

On March 1st, 1919, the fourth International Fair to be held at Lyons, France, will be opened and will remain open for two weeks. This fair was organized during the war primarily to give impetus to French commerce. Its development during the four years it has been in existence has been phenomenal and it will probably replace the world-famed annual fair which, before the war, was held at Leipzig, Germany. Mr. W. M. Clark, Canadian Trade Commissioner at Milan, Italy, states that the fair is a place where merchants assemble the products and sell them to visitors, but it is a sample show where producers and buyers meet and from sample shown make important purchases, delivery of which is made direct from the seller on conditions that vary with regards time and place.

At the 1916 fair, there were 1,340 exhibitors and business amounting to \$10,400,000 was transacted. In 1917 there were 2,593 exhibitors and business valued at \$82,000,000 resulted. In 1918, there were 3,176 exhibitors who did business amounting to \$150,000,000.

It is worthy of note that of the 56 exhibitors from the United States in 1918, 405 displayed catalogues and price lists only, orders being placed under the direction of the American Consul-General at Lyons. Nevertheless, it is reported that the business transacted by United States firms formed "a very important part of the total sales".

The Minister of Trade and Commerce has applied for thirty booths at the next fair. A few of these will be reserved for Government exhibits, but most of the booths have been placed at the disposal of the Canadian Manufacturers' Association for allotment and application for space should be made to that Association. The Department will pay for the booths and also the freight on exhibits from the port of embarkation to Lyons.

This is an excellent opportunity for Canada to display what she can furnish to help re-build war-wasted France and at the same time improve our national financial standing, as the success of the Victory Loan makes possible an extension of credit. Canadian manufacturers should co-operate with the Department of Trade and Commerce to "get the business".

—A. D.

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, DECEMBER, 1918

LEARNING FROM MISFORTUNES

Like most misfortunes, the recent epidemic of influenza has not been an unmissed evil. It has served to draw attention to unsanitary and wretched conditions, especially in the larger cities, that must be eradicated.

Visiting nurses and others engaged in relief work found so-called homes where hygiene was as foreign as it is among the Eskimos. And the number of such homes was astonishingly large.

Already steps have been taken in these places to right these conditions, but it is a difficult task to reach the root of such evils. Education is, undoubtedly, one of the best and surest remedies, education in the art of house-making, in the need for community, industrial and personal cleanliness, in the causes and the prevention of disease. It may be a long process, but conditions should be such that individuals who insist on remaining in ignorance of these matters, or who disregard them should be punished, because they are a menace to the health and well-being of society.

Agencies, such as the medical profession, the St. John Ambulance Association, the Local Councils of Women, or other organizations of men or women which have at heart these problems of public health should be encouraged to renew and increase their efforts in spreading a knowledge of home hygiene and preventive medicine generally.—A. D.

CHILD CONSERVATION

The "back to the school" drive of the children's bureau of the Department of Labour, recently inaugurated, aims to accomplish that which will be endorsed by every thinking person in the country. Year's demands upon industry have increased enormously child labour to meet the requirements of the present, regardless of the future.

It is high time official notice be taken of the evil and drastic action begun to eradicate it before the latter portion of the coming generation is stunted and cheated out of its right to that measure of education in which is founded a proper conception of the duties of citizenship.

This task undertaken by the children's bureau is an attempt to induce children and parents to realize that training the children can obtain to fit them for after-the-war tasks of patriotic service. Orders issued for

some time past by the Labour Department have emphasized the fact that child labour is not considered necessary in essential war industries. But in spite of this effort of the government to suppress the evil it has grown apace and more rapidly than ever since the Supreme Court held the child labour law unconstitutional.

Out of the factory and into the school-room by all means for children of tender years. Investigations by the Department of Labour justify the demand which should be enforced by every sober-thinking and patriotic parent.

It has been shown that in some of the southern textile manufacturing states children between the ages of 5 and 14 years are being employed more than eight hours a day. The premature aging of young children through long and labourious hours of work also is going on in staid old New England and elsewhere. Let the people give their support to this laudable enterprise of the children's bureau and rescue these little ones from a fate that promises to make of them throughout their lives mere menials and servants instead of intelligent and independent American citizens.

—The Post, Washington, D.C.

IT PAYS TO TAKE CARE OF FARM MACHINERY

Farm machinery represents a financial investment. Taking proper care of it results in a monetary gain; leaving it exposed in the open at all seasons of the year must mean economic loss, not only to the farmer but to the whole country. It is generally recognized by authorities on agriculture that, if exposed in all sorts of weather, farm machines depreciate more than they do from fair wear and tear. That is to say, the farmer, who is careless in this respect, pays for more than twice the number of implements that he actually requires. At the same time great manufacturing plants and small armies of workmen have to be kept busy replacing these losses, which, in thousands of instances, are purely and simply the result of carelessness and neglect.

To house implements properly, it may not be necessary to have a special implement shed. Many farmers can utilize an unused barn floor, or a part of some other building. Poultry or other live stock should never be allowed access to the building, or part of a building that has been set aside for machinery. On most farms, however, a special implement house is desirable. A suitable building, if carefully planned to conserve space, can be built at a reasonable cost. Plans can be obtained from the Central Experimental Farm at Ottawa.

Before implements are stored for the season they should be carefully cleaned and oiled. It is a good plan, after removing all dirt, to wipe the entire machine with an oil rag and to grease all wearing parts with tallow or axle grease. Further, it pays to renew the paint on the machinery at regular intervals. Paint of good quality, applied to well-cleaned surfaces, is an excellent protection, as well as improving the appearance of the

machines. Then, too, it is an advantage to attend to all necessary repairs during the winter when the machines are not required. This will save much time and annoyance in the busy seasons.

To sum up: Proper care of farm machinery necessitates a suitable building where the implements will be protected from the sun, wind, rain, snow and live stock, when not in use. In addition, it should be kept clean, well oiled (painted, if necessary) and in good repair.—A. D.

INFLUENZA REQUIRES CAREFUL WATCHING

The recent epidemic of influenza stands out as one of the most severe that has ever swept over America. On no previous invasion of this disease did the mortality resulting from the affections of the respiratory organs, brain and digestive system reach that of the recent scourge. Unfortunately, although influenza is by no means a modern disease, comparatively little was known of its epidemic form until after the ravages it made in 1889-90, and the nature of the infection is even yet, not clearly understood. Studies of the epidemic of 1890, however, are proving of great value in the present instance. For example, it is well known that the epidemic of 1890 was followed by many local epidemics as reflexes of the main scourge. In the city of New York, the local epidemic of 1891 did almost as much damage as the general one of the year before. Further, if the present experience is to be analogous to that of 1890, it may also be expected that the number of cases of tuberculosis and pneumonia will be above normal for some time.

All of which indicates the need for more than ordinary precaution against the disease and its consequent affections or sequelae, for many months to come. It is devoutly to be hoped that the recent epidemic has enabled students of medical science to arrive at more accurate conclusions with respect to the causes and the remedies for influenza, so that, if the recurrence of pandemics, or even of epidemics, cannot be entirely prevented, their disastrous effects may be greatly lessened.

APPRECIATES FORESTRY WORK OF COMMISSION

The following appreciation of the work of the Commission of Conservation in laying a permanent scientific basis for the regeneration of cut-over pulpwood lands has been received from Mr. W. Gerald Power, Chairman of the Woodlands Section of the Canadian Pulp and Paper Association:

"The Woodlands Section of the Canadian Pulp and Paper Association beg to thank your Commission for its co-operation in studies of the reproduction on cut-over land in Eastern Canada which has been carried on, in co-operation with the Laurentide Company, Ltd., and the Riordon Company, Ltd., for the past two seasons.

"We consider this work of the utmost importance and we trust that the

Commission may continue to co-operate with us along these lines. As you know, sample plots have been laid out and are under investigation. As this work will take a number of years before completion, we hope that your Commission will continue the work and put it on a permanent basis.

"We enclose a resolution which was passed at the last meeting, and trust that you will see fit to continue your work with us in the future."

The resolution referred to is as follows:

"Resolved that the firms represented in the Woodlands Section of the Canadian Pulp and Paper Association be asked to subscribe to a Fund for the continuance of various investigations and that the Commission of Conservation be asked to continue its work, and that a copy of this resolution be forwarded to the Premier, Sir Robert Borden, asking that the Government make the necessary appropriation to carry on such work."

HAVE YOU A SHORTAGE OF HOUSES?

A Suggestion for Boards of Trade

How a Chamber of Commerce may go about systematically to discover for the city the actual extent of its housing facilities, or lack of them, is demonstrated in the methods pursued by the Chamber of Commerce of Beaver Falls, Pa.

Following the reorganization of the Chamber last fall, reports of a house shortage were received by its officers. In order to determine the accuracy of these reports, a survey of industrial plants was conducted by a committee appointed for the purpose. Circular letters were placed in the hands of all employees. Those who had come to the city recently and were unable to secure suitable housing accommodations were asked to communicate their needs to the committee on the return coupon attached to these letters. This circularization of the manufacturing establishments was supplemented by a distribution of the same blanks to public school children, with the request that they be taken home to their parents.

Although the results indicate that the actual house shortage had been exaggerated, enough information was placed at the disposal of the committee to convince its members that the city really had a housing problem. Acting on this assumption the committee is proceeding to interest the manufacturers and other business men of the district in a co-operative community building plan.

The committee is confident that those called upon will respond to this appeal after the housing experts, who are to be brought to the city, place before them the experience of other manufacturing communities in providing homes for the men who have been attracted to them during the recent period of augmented industrial activity.

79 Per Cent of Fire Losses

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obvious dangers of women kindling fires with coal-oil and children playing with matches. Such campaigns of education are, at best, a trench warfare aimed at wearing down public indifference. Whatever their effect in the future may be, their immediate results are imperceptible.

The frequent statement that Canada's fire loss exceeds that of other countries because of our ignorance of fire dangers and incendiary tendencies is open to proof. What are the facts? Analysis of the fire waste during the first ten months of 1918 shows that, although 15,927 fires occurred and entailed a total loss of \$28,443,200, over \$22,650,000 or 78 per cent of that loss was caused by 234 fires. The actual figures as compiled and classified by the Commission of Conservation are as follows:

CANADIAN FIRE RECORD, 1918
(January to October, inclusive)

No. of Fires.....	15,927	Total loss	\$28,443,200
Fires above \$10,000.	234	22,654,500	
Manufacturing	168	13,371,000	
Mercantile	39	8,339,000	
Miscellaneous	27	944,500	
Fires above \$100,000	62	16,787,000	
Manufacturing	33	10,320,000	
Mercantile	24	5,350,000	
Miscellaneous	5	617,000	

Fires above \$10,000 in Man'g Risks—			
Metal Workers	24	5,960,000	
Wood Workers	27	2,957,000	
Food Products	19	2,193,000	
Textile Products	18	8,156,000	
Miscellaneous	20	2,346,000	

The significance of this statement is clear. Through the negligence of 234 owners and occupants of property, the eight million people of Canada are being burdened with a fire loss of over \$22,000,000 in ten months and stand indicted before the rest of the world as a nation of careless spendthrifts. While 70 to 80 per cent of Canada's annual fire loss is due to fires in manufacturing plants and business establishments, the time, thought and energy spent upon teaching fire prevention in public schools comes dangerously near to being misdirected. Any education to be effective must be directed toward the real offenders—the owners and occupants of property whose revenues are augmented by neglect of the principles of fire protection and who, through insurance channels, silently capitalize their evasion of public duty.

The only way in which fire waste conditions in Canada can be remedied is by the enforcement of personal responsibility. We may install water-works, buy fire engines, maintain firemen and establish elaborate insurance schemes from now till eternity, but fire losses will continue to increase in exact ratio to the growth of our national wealth. The greater the responsibility accepted by the community for fire protection the less responsibility is recognized by every individual in the community. That is fundamental. There is no mystery in preventing fires. Every building in Canada can be made reasonably, if not absolutely safe and the means of doing it may be learned for the asking.



WHERE THE BULK OF CANADA'S HEAVY FIRE LOSSES OCCUR
Between 70 and 80 per cent of the national fire loss takes place in factories, warehouses and other high-value mercantile buildings.

Cut No. 178

The personal obligation cannot be discharged by the process of insuring nor escaped by pleading defective building laws, indulgent inspection departments, inefficient fire brigades and other scapegoats of individual carelessness. The property owner who insures to cover his own neglect is gambling with the Canadian public and if the game goes against him he should be made to bear at least a proportion of the loss.—J. G. S.

ELECTRICITY USED TO
EXTRACT OCEAN SALT

It is stated that experiments in Norway with a view to extracting salt from sea water by means of electricity have been successful and that two salt factories will be started for this purpose in the near future, under the name of De Norske Saltverkter. One is to be in western Norway and the other in northern Norway, as these districts, on account of the fisheries, are the best home markets.

Each factory is calculated to produce 50,000 tons of salt per year for a start, but they will be so constructed that the production can be doubled, if necessary. Besides the salt, certain by-products will be produced. The capital of the two factories will be 20,000,000 crowns (\$5,360,000). Each of them will use about 6,500 horsepower for the normal production.

During the war it has been difficult to get salt from abroad and sometimes it has been impossible to salt

down the fish. The new salt works should greatly improve the situation.
—Fishing Gazette.

FARMERS' ACCOUNT BOOK

"Will you kindly send me a copy of your *Farmers' Account Book* of which we were told by our pastor?" That is the way a letter recently received from a farmer by the Commission of Conservation reads. It shows how the clergy are seconding the efforts of the Commission to encourage business-like habits among farmers. The *Farmers' Account Book*, which contains blanks for a simple but comprehensive system of farm accounts, will be sent on request to any farmer who states the number of acres of land he works.

TO INFORM THE PEOPLE

Baltimore publishes a Municipal Journal every two weeks for the purpose of giving the public definite and detailed information about the operations of city government. It is brightly written, well edited and attractively illustrated. The practice is one which could be followed to advantage by Canadian cities. In a democracy, the basis of efficient government is a well-informed electorate.

Apples are an unexpectedly good crop in portions of Western Ontario. Many farmers are having them ground to make cider and apple butter, the latter to be used as a substitute for potatoes, which, in some districts, were a failure this year.

Carelessness Caused
Great Forest FireMinnesota Blaze One of Worst on Record
Fire Conditions in Canadian Forests Improving

During October, forest fires at Duluth, Minnesota, destroyed about one thousand human lives and \$75,000,000 worth of property. The number of lives lost, the Minnesota disaster is of at least four times the magnitude of the great Claybelt which swept a section of northern Ontario in 1916.

Reports indicate that the Minnesota holocaust is the direct and logical result of indifference on the part of the general public toward the existence of numerous small fires which, first, did not immediately threaten property or lives, coupled with the failure of the state administration to provide adequate funds for fire patrol and extinguishing of fires in the incipient stage. It appears that numerous small fires had been burning for some time in swamps and on cut-over lands between Cass Lake and Duluth and were regarded with practical indifference by the bulk of the general public. With continued dry weather these fires ran together, and, driven by a 60-mile gale, they swept everything in their path.

Minnesota has an excellent fire service, but its efforts have been crippled by lack of sufficient funds. Apparently, the lessons of the great Hinckley and Baudette fires had been sufficiently learned, with the result now seen.

In eastern Canada, however, the lessons of the great Claybelt fire of 1916 have been carefully heeded by the Provincial Governments of Ontario and Quebec. In Ontario, forest service, under E. J. Zavitz, Provincial Forester, maintains a staff of about 1,000 fire rangers during the season, and expends around \$500,000 annually on this work. Particular attention is paid to the protection of Claybelt, where extensive clearing settlers, coupled by cutting operators by pulpwood companies, render extreme protective measures imperative.

Through most of Quebec, forest protection is handled by the cooperative fire protective associations of landholders, but, in the Claybelt district along the Transcontinental railway, the patrol is maintained by the provincial forest service, under G. Piché, Provincial Forester.

In neither province, however, provision yet been made for the reduction of the fire hazard through enforced disposal of logging slash in licensed timber lands. This is necessary precautionary measure toward which public sentiment is rapidly becoming more favourable. To do it is made effective, there can never be full safety for the lives and property of settlers, nor can the non-agricultural lands have full opportunity for the production of a new crop of timber on the cut-over areas, which are increasing rapidly from year to year.—C. L.

The first thing necessary in breaking a bad habit is to want to break