

Conservation

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Scientific Research Pays Big Dividends

Large United States Concern Makes Millions From one Discovery Made in Its Laboratories

The great laboratory of the General Electric Company at Schenectady is maintained at an annual cost of over \$500,000 and employs seventy-five investigators, including among them several who are eminent in the world of pure science. One of its products is the tungsten lamp which is now manufactured by twenty-two factories scattered over the country. This lamp, according to a very careful estimate made in 1911, was at that time, effecting a power saving valued at \$240,000,000 per annum. Since then, the consumption of this type of lamp has increased three-fold and further research has increased its efficiency of light production nearly 25 per cent. The research workers are discouraged from thinking of financial results, as discoveries are more likely to be made by those who are working in the scientific spirit.—Prof. J. C. Fields.

Point Pelee Reserved As New National Park

Game Sanctuary Established on Recommendation of Commission of Conservation

Point Pelee, the most southerly portion of Canadian territory, jutting out from the lake shore of Essex county, Ontario, into lake Erie for a distance of about nine miles, has just been designated a National Park by the Dominion Government, to whom the land belonged. The creation of this park for the protection of its distinct and attractive tree and plant life and its wild life it harbours permanently and during certain seasons, was recommended by the Commission of Conservation and the Advisory Board on Wild Life Protection; the Canadian Society for the Protection of Birds and the Essex County Wild Life Conservation Association also advocated its creation. In the Ninth Annual Report of the Commission the main features of the Point are described as follows:

Not only is it the most southerly point of Canada, geographically, and is the character of its birds, trees and plants, but it constitutes one of the concentration points in the northern
(Concluded on page 26.)

Only One Way to Cut Down Insurance Tax

Everyone Helps Pay for a Loss When a Building Burns

Failure to understand the real place and function of insurance is the most powerful obstacle in the way of fire prevention work. The average man figures that, when a building burns, the only loss is the difference between the actual value destroyed and the amount of insurance carried. Insurance does not restore property that is burned, nor obviate the loss entailed. It merely distributes the loss over many individuals instead of allowing it to fall upon the owner alone. The insurance company is merely a collecting and disbursing agency for the policy holders. It collects from those policy holders enough money to pay the loss plus a sufficient amount to cover operating expenses, including the ordinary dividends on capital stock.

Excessive fire losses necessitate excessive insurance rates. Low fire losses will, in time, bring about reduction of rates. In the long run, this rule works out inexorably. Every man who prevents or helps to prevent fire is indirectly reducing the cost of insurance. Every man who causes fire by carelessness or neglect is helping indirectly, but none the less surely, to increase the cost of insurance for both himself and his neighbours.

Even the man who has nothing to insure pays his share of the cost of fire. The manufacturer carries insurance on his goods in process of manufacture and in storage. The wholesaler and retailer likewise carry insurance upon their stocks. Be it a loaf of bread or a pair of socks, by the time the article has reached the consumer a dozen insurance premiums have been paid upon it, and the amount added to the price. The fire loss is, therefore, nothing more or less than a tax upon the public which, in some form or other, they are sooner or later compelled to pay. There is no escape except by a reduction of the fire loss itself. Better construction, the elimination of carelessness and the prosecution and prompt conviction of incendiaries are matters of direct and vital importance to every man, woman and child in Canada.—J. G. S.

In Japan, the Government and the manufacturers are jointly spending \$2,000,000 on an Institute for Physical and Chemical Research.

Eastern Spruce Now Used for Airplanes

Increased Demand Causes Allies To Turn to this Species

So great is the demand for airplane spruce by the Allies that eastern as well as Sitka spruce is now being used. Canada has large resources of eastern spruce, which has hitherto been used mostly for the manufacture of pulp, paper and lumber, and the British War Mission is at present trying to secure in eastern Canada as large an amount as possible of the grades suitable for airplane manufacture.

Eastern spruce has for some time been used for airplane construction in the United States, although only a very small percentage of this timber is sufficiently clear for this purpose. Tests made by the United States and Canadian governments show that where material of suitable quality can be found, this species serves admirably for airplane construction and may be expected to supplement the supplies of Sitka spruce from the Pacific Coast, which are only now beginning to approach adequate proportions.

The timber for use in airplanes has to be sawed parallel to the bark, instead of parallel to the axis of the log, as is done for lumber. In this way, straight-grained boards are obtained, having the highest possible percentage of material free from knots and possessing a maximum of strength.—C. L.

UNPRECEDENTED FIRE WASTE

Up to the present, the fire loss of the Dominion of Canada is 25 per cent. greater than for the corresponding period of last year. If this rate of destruction continues, the loss will exceed thirty-two million dollars in 1918, and together with expenditures upon insurance and fire protection, will constitute a burden of over \$65,000,000. This means about \$10 out of the pocket of every man, woman and child in Canada, or almost \$40 for the average family.

BOOK-KEEPING FOR FARMERS

The Commission of Conservation has just published a Farmer's Account Book containing blanks and instructions for a simple but complete system of farm book-keeping. It will be sent on request to bona fide farmers only.

Proposed Solution of War Housing Problem

Town-planning Expert of Commission Suggests Government Housing Scheme for War Workers

Shortage of houses is reported from all parts of Canada. Subject to variety of local conditions the causes of the shortage are everywhere the same, namely, scarcity and dearth of money and high cost of labour and materials. These causes have come suddenly into being as a result of the war and have practically killed private enterprise in building. If the present economic conditions were likely to be permanent, the position would gradually right itself, as the level of rents and purchase price would soon rise to meet the increased cost; but perhaps the most prevalent expectation among authorities is that the existing conditions are not permanent and that costs will recede to some considerable extent—although not probably to the old level—when the war is over. That expectation is so likely to be realized that it is almost certain private enterprise will cease to be much of a factor in producing a supply of houses for several years to come.

There is a special war housing and a general industrial housing problem. The war problem is associated with the drift of population to districts where war industries have been established. The general industrial problem existed before the war and has been intensified in all parts of the country as a result of the causes above referred to. The same problems exist in Britain and the United States.

At the present moment, the most urgent question is that of war housing. Britain and the United States are dealing with that as an important war measure and that phase of the housing shortage in these countries is being met by means of housing schemes promoted and financed by the national governments.

It is claimed that in Canada we are also in urgent need of houses to help in winning the war, that we need them to enable us to increase the output of our war industries. What should our policy be in regard to this pressing special problem of war housing, due regard being paid to the lessons of Britain and the United States? Other aspects of the housing question may surely be left in abeyance till that one aspect is settled. If we fail to solve any problem of housing that needs
(Concluded on page 26.)

What Eyes of Science Can Do for Business

An Example of Business Blindness in Great Britain

In several British industries, native raw materials are now being utilized here, before the war such materials were imported from the continent simply because the manufacturer did not happen to know that ample supplies of the same were at his very door, a fact of which he would have been informed had he consulted competent scientific authorities. This is well illustrated in the case of one of the largest steel corporations of England which, until 1914, had been importing from Austria, through a German firm, a certain material for lining its converters. When war was declared it congratulated itself on the fact that it had a two years' supply on hand. As time wore on, however, and the supply diminished, complacency gave place to anxiety. Finally, the directors decided to call in scientific advice. They were referred to the geologists who informed them that a bountiful supply of the material in question was available in the immediate vicinity of their own plant. The information was acted upon, a shaft was sunk at no great distance from their furnaces, and, as a result, the company is now mining in sufficient quantity on its own account the material formerly imported from Austria at many times the present cost.—Prof. J. C. Fields.

Solution of Housing Problem

(Concluded from page 25)

solution in order that we may do our best to win the war, we are not likely to have the courage or the intelligence to deal with the more general problem. Private enterprise may be dismissed as a factor under present conditions. Apparently, therefore, we must have recourse to a policy requiring government aid, be it federal or provincial, and government aid involves government supervision. The Federal Government is the authority under the War Measures Act, and housing war workers is a war measure. Therefore, this is primarily a matter for the Federal Government; although, for practical purposes, it should delegate as much responsibility as possible to provincial and municipal governments. Large employers of labour who need housing accommodation should be made to co-operate in any government scheme, in their respective localities.

If government housing were resorted to in this country, it should be carried out by a joint partnership between federal, provincial and municipal authorities. The Federal Government should provide the funds and set up a central expert advisory and supervisory board; it should not build houses directly under its own control except for employes in government factories, arsenals, naval establishments or railways. In all other cases, housing operations in connection with

war industries and returned soldiers should be carried out by the municipalities with the aid of funds and expert advice provided by the Federal Government through the agency of provincial governments. Departments of the provincial governments should take the responsibility for the proper housing schemes, under the regulations of the Federal Government and subject to its supreme control in matters of finance. For the present, no housing scheme should be carried out with the aid of public funds unless for some purpose directly connected with war production, but all such schemes should consist of permanent buildings so as to make them contribute to the solution of the general problem of reconstruction after the war.

This brief outline of policy is not put forward as a recommendation to the Government, but only as an indication of what the experience in other countries would lead us to believe to be the best policy—and regard being paid to our local conditions and forms of government in Canada.

—Thomas Adams.

Point Pelee Reserved

(Concluded from page 25)

and southern journey of our migratory birds. In the spring and in the autumn, enormous numbers of birds of all species in their migratory journeys to and from Canadian territory concentrate at this point and its reservation, therefore would be an important factor in ensuring the protection of these. The area includes a marsh several square miles in extent which forms a favourite resort and breeding place for wild fowl, but excessive shooting has reduced its value as a breeding place. Pine, oaks, red cedar, black walnut, and hackberry grow in profusion on the narrow strip of land running down the west side of the point and make it a tract of singular beauty to the lover of trees and shady groves. Its scenic value, the southern nature of its birds and plant life, its importance as a main route for migratory birds and the exceptional opportunities it affords for the protection and encouragement of wild fowl, insectivorous and other birds, all combine to make it an ideal area for a national reservation.

With the exception that duck shooting will be allowed on the marsh under permit for a limited season in the fall, the wild life in the park, which includes the extensive marsh will be protected as in the case in all the National Parks. The park contains some of the most beautiful woodland and lake scenery that is to be found in western Ontario and its reservation will mean the permanent protection of the area under the Parks Branch of the Department of the Interior for the use and enjoyment of the public.

FARES PAID FOR FARM HELP

To provide help in haying and harvest, the Trades and Labour Branch of the Ontario Government will pay the going railway fare of persons who agree to work on a farm

for at least three weeks. The worker has, however, to pay his return fare. The maximum distance for which this free transportation is given is 300 miles.

It is understood also that the Quebec Government has arranged with the railways for reduced fares for farm labourers.

Finding Out How To Control Wild Mustard

Experiments Conducted by Commission of Conservation in Dundas County

On a number of farms in Dundas county where the Commission of Conservation is conducting illustration work on farms, various methods of cultivation are being tried to check the spread of wild mustard. On fields where corn was grown last year and where grain was sown this spring, part of the land was ploughed and part was thoroughly cultivated only, before seeding. On fields where the corn was kept clean last summer and no mustard was allowed to go to seed, the cultivated portion shows much less mustard this year than is to be seen in the grain on the land which was ploughed, while the stand of grain is equally as good on the cultivated portion of the field.

There are two things to be looked for in this comparison: note which part of the field gives the best grain crop and which is freer from mustard. If this test is contemplated on your farm next spring, by all means see that the mustard in your crop of corn is not allowed to go to seed. There are many similar simple tests that any farmer might conduct. The way to find out if a thing is good is to try it out, on a small scale at first, on your own farm. Do not plunge headlong into some new thing the first time you hear of it. Try things side by side so that a comparison may be made.—F. C. N.

Make Potato Flour To Reinforce Wheat

Process Described for Making Potatoes Into Flour

Canada has been called the granary of the Empire, but no one seems to have thought of giving her the appellation: "the cellar of the Empire." And yet the potato cellar may be made a very real counterpart of the granary. Owing to the great development of the war-garden idea, thousands of people are growing potatoes, who, before the war, relied entirely on supplies from the farms. There is thus every reason to suppose that potatoes will be much more plentiful this year than ever before.

Why not convert as large a proportion as possible into potato flour? Potato flour mills require but a few hundred dollars of working capital; the machinery required is of the simplest and the resulting product is a wholesome, nourishing food. Potato

flour has been used extensively in Britain, especially during the past year. A mill in the state of Washington produces 25 to 30 barrels a day and sold its product during the month of April for \$21 a barrel. Certain starch companies in Canada are also making it, but the business is capable of very considerable expansion. According to Mr. Meeker, an American potato-flour manufacturer of long experience, a ton of potatoes will produce 500 pounds of flour. The process he describes is a simple one.

"First, the potatoes are washed clean and then sliced with the peeling on and dropped immediately into water to rinse them and to prevent discoloration. Then, as soon as practicable, they are either parboiled or steamed for eight or ten minutes, when the starch will be cooked and the slices will become transparent. The cooked slices are then transferred to a drier and, for the first few hours, are subjected to a current of hot air not hotter than 120° F., after which the temperature is gradually increased to 170°, but no greater. The drying process is continued until the slices are brittle, though it is immaterial if a few here and there are not thoroughly dried. They are then taken from the kiln and placed in piles in a room where they can be well stirred at intervals for three or four days, after which they may be ground into flour.

"A revolving washer—a long box partially submerged in water and capable of washing a ton of potatoes an hour—can be built cheaply. An ordinary root cutter costing about \$30 will answer for slicing the potatoes, but it is probable that a more desirable machine might be found on the market. The average mill will cost from \$150 to \$225 and up, but, at present, can not be obtained on short notice."

GREEN PASTURES AND SHADY NOOKS FILL THE MILK PAIL

It is to be regretted that on many farms practically all of the trees have been cut down. Cows and other live stock often have to pasture in fields where there is no shade of any description provided. It is well known that cows must be comfortable, whether they are in the stable or in the pasture field, if they are to do their best at the pail. The dairy cow is one of the greatest friends of man. She has helped to lift mortgages from farms all over the country. In spite of this, very little consideration is given to her comfort by many who depend upon her as a money-maker. If possible, provide shade for the cows in the hot, sultry days of summer. If there is no shade in the field where the cows are pasturing, let them run, if possible, into a field or lane where there are trees under which they can rest. Those who look after the comfort of their dairy cows in the hot, dry days of summer by providing plenty of fresh water and shade will be abundantly repaid in dollars and cents. The dairy cow deserves this much attention.—F. C. N.

**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.

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OTTAWA, JULY, 1918

CONSERVE OR PERISH

Whether we have a high tariff or no tariff, an income tax or a head tax, direct or indirect taxation, bimetalism or a single standard, national banks or state banks, are matters which concern, to be sure, the temporary convenience of the members of society, but their prejudicial adjustment is easily remediable; when ill effects become apparent, the inconveniences may be removed with but little harm to the community and none to mankind at large, or to the future. But whether fertile lands are turned into deserts, forests into waste places, brooks into torrents, rivers changed from means of power and intercourse into means of destruction and desolation—these are questions which concern the material existence itself of society, and since such changes become often irreversible, the damage irremediable, and at the same time the extent of available resources becomes smaller in proportion to population, their consideration is finally much more important than those other questions of the day.

Only those nations who develop their national resources economically, and avoid the waste of that which they produce, can maintain their power or even secure the continuance of their separate existence.—*R. B. E. Fernow.*

CONSERVING POSTERITY

Conservation of child life is more than ever a prime necessity in every civilized country. Four years of war, with its fearful wastage of human life, has brought home to men as perhaps never before, the potentiality of the child and the need for husbanding that most valuable resource of any nation.

For many years, the birth-rate in Germany has been proportionately larger than in the Allied countries. She is now credited with taking drastic measures to maintain the birth-rate in order to fully offset the loss of men in battle. By such means she hopes, by sheer weight of numbers, to eventually force her will on the world.

Our finer conception of marriage prevents us seeking to maintain the national birth-rate by means that are alleged to be in force in Germany. However, it is possible to make a vast improvement in our infant mortality ratio. The infant mortality statistics of Britain, the United States and Can-

ada have long been a standing reproach to our civilization. Why should 27 per cent. of the children born in any Canadian city die before reaching the age of one year? Yet those are the official figures for 1916 in one of the oldest cities in Canada and other Canadian cities have very little reason for pointing a scornful finger at that particular municipality. Such conditions are a national disgrace and every effort should be made to set them. To check similar waste of child life, both Great Britain and the United States have recently re-organized their Children's Bureaus; Canada should follow their example. Organizations, such as the Local Councils of Women, have done much to remedy the evil, but the work requires and deserves State support and

WAR GARDEN MARAUDERS

The other day in Hespeler, Ontario, a man let his dog run loose and damage a war garden. As a result, he paid for the damage done and contributed \$5 besides to the court fines. Probably he was only careless, but he will not be the next time. It is even more important for municipal authorities to protect war gardens than it is to encourage people to undertake them. In every town and city in Canada, the people have responded patriotically to the appeal for greater production and owners of marauding dogs, parents of careless children, or adult vandals should be given their lesson early in the season. A few fines will do wonders and it is just as important to give wide publicity to the

which must be strictly enforced.

The opening of the vacation season, and the exodus to summer resorts carries with it a threatened danger. In many places, little attempt is made to protect the waters; in fact, the lakes and rivers are considered a convenient means of disposing of refuse. It is not possible for inspectors to visit every nook and corner to see that cottagers or campers are obeying the law. The responsibility must rest upon and be accepted by the people themselves.

The inland waters belong to the Canadian people; and it is not too much to ask that every care be taken to prevent contamination, either directly or by drainage or seepage. Only by the people exercising this care can the waters be saved from pollution and this source of food supply be conserved.

CONSERVATION WORK COMMENDED

THE Canadian Manufacturers' Association in its annual convention at Montreal on June 12 and 13, expressed its appreciation of the work of the Commission of Conservation in the following resolution:

Whereas the Commission of Conservation of Canada has been largely responsible for the development of favourable public opinion on the perpetuation of forests, their safeguarding from fire and pests; the valuable information accumulated by them bearing on our enormous fire waste; the improvement of housing conditions in congested localities; the establishment of proper methods of general fire prevention; the beautifying of municipalities and betterment of living and social conditions; the economic utility of systems of good roads and the prevention of the alienation of water-powers, land, minerals and other natural resources;

And whereas the public opinion so created has become crystallized in the form of municipal regulations, Dominion and Provincial legislation having in view the eradication of existing evils pointed out by the Commission;

And whereas there is still great necessity for the stimulation of public interest in best methods of conservation of resources, material, human, and all others for which the Commission has devised an admirably fitted organization;

Be it therefore resolved that the Canadian Manufacturers' Association in convention assembled record its deep appreciation of and continued interest in the work carried on by the Commission of Conservation and its high approval of the efforts of the Commission to promote the development of natural resources on a basis which ensures continuous supplies and eliminates extravagance and waste.

In a resolution dealing with the necessity of providing more adequate housing facilities, the Association "respectfully suggests to the Dominion Government that immediate progress can be made by enlarging and emphasizing the work of the Housing and Town-planning Branch of the Commission of Conservation."

direction. In peace times, Canada spends large sums to encourage immigrants to settle here and, at the same time, permits children of native stock to die needlessly by the thousand every year.

Factors such as housing, home nursing, cleanliness, sanitary milk supplies and the education and care of mothers must be considered. It is a many-sided problem and the country as a whole should share the responsibility and honour of solving it.—*A. D.*

Accuracy is a prime factor of conservation. An American engineer stated recently that he had seen a British plant employing eleven thousand persons making over American-made fuses.

court proceedings as it is to impose the punishment. In some places, the police force will have to be stirred up. A few complaints in person, or by telephone, to the chief of police, will soon make the force alert. Once they realize that public opinion is strongly in favour of making the war garden marauder pay the penalty, that individual will have a hard time of it.—*M. J. P.*

PROTECTING INLAND WATERS

Food conservation has directed attention to the inland lakes and rivers of Canada, in that from these much of the fish being marketed in interior towns and cities is secured. The protection of these waters, therefore, becomes a paramount duty, and one

SHOOTING TO HIT

Being a Homily for War-Time Workers

A well-trained infantryman is an expert on rapid fire. He can fire his rifle the maximum number of times a minute and most of his shots will be "inners"; or he can group his shots on specified points of the target with the same all-but-unerring skill. When he faces an advancing enemy he wastes but few cartridges. Coolly, rapidly and with precision he sends each bullet into its living, moving "billet". He has confidence and self-assurance, because he knows what to do and how to do it. If the line he is in is but thinly held, he does not get an attack of "nerves"; but applies himself with even greater intensity to his task of shooting to hit. If his rifle "jams" he takes up another, but he does not think of quitting, or of engaging his neighbour in pessimistic talk.

We, at home, must follow his example. We cannot stand on the "firing-step" to check the Hun's advance. The enemies we fight are less tangible and perhaps more insidious. Hunger is one of them; idle, depressing conversation is another. Second only in importance to keeping the army at full strength is that of producing and conserving food. Men are being called from farms as well as from every other producing industry. Our reserves are being moved into the front line. But, even if the line is getting thinner, do not get an attack of "nerves" and think of throwing up your hands or of running away. Try some rapid fire in the producing line. Show your skill in grouping your shots on the most dangerous targets. If your implements are "jammed" from want of help, join up with your neighbour who may be in a similar plight. Such team-work may keep two farms from being useless in the fight for freedom. Or if male labour is out of the question, enlist the women. Thousands of British women have been on farms during the past two years and if the need arises Canadian women will be no less dauntless. Shoot quickly, shoot to hit and keep on shooting.—*A. D.*

Fur Market Reaches New High Price Level

Tremendous Advances in Cost of Both Labour and Raw Furs

Furs have long been considered to be necessities rather than luxuries in Canada. The long, cold winters encouraged their use and the supplies, until recent years, were readily available. The general level of prosperity in Canada has been fairly high and Canadians have been able to buy furs on any market. In the face of rapidly rising markets, the present abnormal, war-time prosperity has enabled a large percentage of the population to maintain, or even raise, their standards regarding necessities.

But the line between luxuries and necessities is frequently not very clearly defined and the fluctuations of the market often determine whether a given commodity is really a necessity, or merely a luxury. During the past two decades, the prices of furs have risen steadily. Substitutes were found for many of the more costly furs, which, if available at all, were purchased only by people to whom the price was merely a secondary consideration. Since the war commenced, however, the prices of all furs, including the substitutes, have risen greatly and trade opinion indicates that the high prices will continue to increase. Factors in a further rise in prices, it is contended, will be the import embargo placed on furs from many countries and the further depletion of the ranks of American and Canadian trappers by the war's demands for man power.

At the recent quarterly sale of raw furs in New York—at present, the most important fur market in America—more than \$4,000,000 worth were disposed of. This was the largest amount ever recorded at a sale in New York. Fashion kept a few furs down to former prices, but many others went up by leaps and bounds. Thus, northern wolf pelts advanced 140 per cent for the season, while southwestern wolf pelts showed a total rise of 90 per cent. These instances, were in large measure, due to their being substituted for foxes, the catch of which was short. Muskrat showed a rise of 120 per cent and beaver 105 per cent for the season. With the exception of northern raccoon, which only advanced 15 per cent, the prices advanced from 30 to 140 per cent for the season.

These increases are for raw furs only. When the increased cost of dressing, dyeing, etc., is added, the consumer will have to pay handsomely for the finished product and many may be led to conclude that, after all, furs are only luxuries anyway.—A. D.

A COURSE IN LEADERSHIP

A school for Board of Trade (Chamber of Commerce) secretaries will be held from July 8th to 19th, 1918, at Eagles Mere Park, Pa., not very far from Williamsport. This school is an outcome of the recent rapid growth of the board of trade field and of the consequently acute



AN EXPERIMENT IN CLOVER GROWING IN DUNDAS COUNTY, ONT.
The crop on the left is sweet clover; that on the right is red clover. Both were seeded at the same time with the same nurse crop. The red clover was badly "winter-killed" while the stand of sweet clover is thick and strong. Under certain conditions, sweet clover possesses advantages over other varieties. See article "Merits of Sweet Clover." Cut No. 173.

need for competent secretaries for such organizations. The modern board of trade has become a fundamental factor in the development of the nation. Just now it is proving an important means of organizing the human resources of communities to meet the issues that have been created by the war. Now, as never before, it is necessary that cities have strongly organized and efficient leadership to direct War Loan, Red Cross, Y.M.C.A., War Camp Community Service, Food Conservation, and other campaigns, to deal with housing problems, to conduct Canadianization work and to cooperate with the various government departments. Chambers of commerce have provided just the organized leadership needed to bring all the forces of the nation to bear on these issues.

Before the outbreak of war, boards of trade had already become vitally important factors in community development. The need had been demonstrated for organized effort by all of the community leaders in a city to bring to the city advantages that none of them individually could secure. The need for these peace time activities still exists, for the development of our cities must continue. The scope of activity of a modern board of trade is as broad as the life of the community itself.

The American City Bureau, Tribune Bldg., New York City, has published for free distribution a pamphlet entitled, "A Call to Men Who Can Lead", which tells more about the school.

IN THE BASS FAMILY ONLY FATHER WORKS

Nobody works but father—
He's on guard all day—
Fins in constant motion,
Keeping the foes away.

In the bass family the male selects a nesting place and then seeks and escorts to it a mate. From three thousand to ten thousand eggs are laid, after which the mother bass is driven away, never to return or to know her progeny.

Father bass takes a position immediately over the nest, constantly

fanning it with his fins and ever watchful for intruders. The vigil continues for ten days to two weeks, while the eggs are developing and hatching, and for a few days thereafter, while the young are getting ready to try their fins. Woe unto the sucker or other enemy which appears too near to the nest! The faithful parental guardian darts fiercely after it and attempts to rip it open with his dorsal fin. By this means, unless he is attacked by overwhelming numbers of carp or caught by the angler, the father bass is able to hatch his brood and care for them until they scatter for food.

The eggs of the basses cannot be artificially manipulated, so that the supply of this excellent game fish depends upon the vigilance of father bass. In normal seasons the basses of Ontario and Quebec spawn from about the middle of May until the first of July. Consequently, during that time every true sportsman will give father bass a chance to do his bit in the way of food conservation, and refrain from fishing over the spawning beds while the fish is guarding his nest, even if it be during the open season.—Adapted from circular of the New York Conservation Commission.

BUY CANNING SUPPLIES NOW

There is likely to be a large surplus of perishable foodstuffs raised as a result of the war-garden propaganda. As this can be fully utilized only by preserving it for future use, by drying, preserving, or canning, this brings up the question of needed equipment and containers.

Last year there was little advanced preparation by manufacturers and retailers. While this, to a certain extent, has been taken care of this year, at the same time the transportation facilities of the country are being taxed to their capacity. Unless jobbers and retailers and householders work together, many will be disappointed. Householders are urged to purchase whatever canning supplies they will need sufficiently in advance of the actual canning season to assure delivery.

Factors in Production

8. Merits of Sweet Clover

Sweet clover is frequently looked upon as a weed. Numerous bulletins and articles have been written about the plant, some in favour of, and some against it. If common red clover is alfalfa, or either, can be grown successfully, one does not need to think much about sweet clover, but, in these fall, it would pay to consider.

Sweet clover is a valuable soil improver and makes excellent feed, cut at the right time and made into hay without being spoiled by rain. It will often grow and survive the winter where red clover will kill out. It is true that it is a difficult crop to grow for hay. It must be cut early or becomes woody and the weather, moreover, is often very unsettled at the time when it should be cut. It can, however, be made into silage. It should be cut and tramped very tightly into the silo and weighted, to prevent it from spoiling. If a second crop is desired, or if seed is looked for in the second crop, the first crop must be cut with a high stubble to allow at least a joint or two on the stalk from which the second growth starts.

If you have a poor field, or have failed with alfalfa and red clover, will pay you to investigate the merits of sweet clover.—F. C. N.

GOVERNMENT FURNISHES CLUB ROOM FOR WOMEN

As one of the largest employers of labour in Canada, the Dominion Government has made a commendable move in furnishing club rooms for the use of women employed in the civil service in Ottawa.

Although of comparatively modern origin, the policy of some great nations of industry in providing recreational and kindred facilities for the employees, has proved eminent worth while. The experience of such firms as the Shredded Wheat Co., Niagara Falls, and, more recently, the Massey-Harris Co., at Toronto demonstrates that the expenditure involved results in greatly increased efficiency, as well as in encouraging employees to retain their positions with the firm. One of the greatest losses sustained by many concerns is the constant hiring of unskilled help to offset the general tendency of semi-skilled labour to move from one position to another. Experience shows that this loss is largely checked by improving the surroundings of the worker, both during office or shop hours and during the periods when he is not on duty. The Government might well consider the extension of this policy by making provision for better housing conditions for its workers all over the country as has been done by the British Government in certain large manufacturing centres.—A. D.