

Conservation

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No. 5

Pasture for Hogs Reduces Cost of Pork

Production Costs Should be More Carefully Studied by Farmers

High prices for farm produce do not always mean large profits. Cost of production plays a very important part in determining the net profit a farmer makes on what he has to sell. This is a matter that should receive more attention than is being given to it. Manufacturers of articles that the farmer has to buy study the question of cost of production very carefully. The farmer is a manufacturer of the things the other fellow has to buy, and while he does little in the way of setting the prices for his products, he could and should do more toward lessening production cost.

Take, as an example, the production of pork. Economical production of pork depends largely upon the consumption of cheaply grown feed. In the summer time hogs should be put on pasture. The pasture should be managed that the forage produced will be clean, tender, and palatable. The idea that anything, no matter how dirty, is good enough for hog feed is erroneous. While the hog will eat some dirty food, he will eat more and thrive better if he is given clean food and clean water. Such crops as alfalfa, clover, rape or peas and oats make good hog pasture. The pasture should not be overgrazed. It is best to divide the pasture lot into two or three equal areas and allow the hogs to remain in each a week or ten days. This will allow the first pastured areas to recuperate before the hogs are turned into it again.

Some grain also should be fed when hogs are on pasture. Opinions differ regarding the quantity that should be fed. A medium ration would be from two to three per cent of the live weight of the hog. No fixed rule can be laid down regarding this. The pasture should be tender and clean, and enough grain should be fed to keep the hogs shapely and in thrifty, growing condition at all times.

—F. C. Nunnick.

Until we get a Director of Housing and Town Planning for each province we shall not be able to get much effective work done.—Thomas Adams before the Tenth Annual Meeting of Commission of Conservation.

Thirty thousand fur seals will be destroyed at St. Paul Islands, Behring Sea, this spring. Every part of the seals will be utilized.



WHAT ONE SIGNBOARD CONCEALS

A rear view of a signboard that stands within a hundred yards of the general post office, the municipal centre and one of the largest hotels in a leading Canadian city. It screens a confused pile of inflammable rubbish, mixed with decaying vegetable matter and other waste products. The civic authorities are said to have permitted the existence of this dangerous and disease producing condition more or less continuously for several years. What are the sanitary inspectors doing?

Cut No. 185

Disposal of Slash is Prime Essential

Means Must be Found for Offsetting the Abnormal Cost of Disposing of "the Garbage of the Forests"

A recent discussion of logging costs in national forests in the United States refers to the question of brush disposal. In California, for example, it is the general practice to require operators to pile and burn all brush resulting from the felled timber and snags. The work of piling is often subcontracted at rates ranging from 17 cents to 25 cents per thousand feet of timber cut. Records of brush-piling work done directly under the supervision of the company show that the cost ranges from 11 cents to 26 cents per thousand feet of timber cut. Brush burning is usually done by the operator at a cost of from 2 cents to 5 cents per thousand feet of the timber cut, with an average of possibly 4 cents per thousand. There has recently been a sharp advance in labour costs. A fair

present average, therefore, for piling and burning is 30 cents per thousand feet.

Corresponding costs in eastern Canada would of course be higher, due to the smaller size of the timber, with consequent larger amount of brush per unit of timber cut. However, the importance of brush disposal from the standpoint of decreasing damage to the forest, due to fire, insect and fungi, is so great that the problem calls imperatively for solution at an early date.

Under the auspices of the Woodlands Section of the Canadian Pulp and Paper Association, experiments are to be made on a number of operations this year to determine the feasibility and cost of reducing the menace by systematic burning of the logging slash, under safe conditions. Logging slash is the garbage of the forest, and its disposal is as essential to the health of the forest as is the disposal of city garbage to the health of the community of human beings.

—C. L.

Now is the Time to Wage War on Flies

A Pair of Flies Born Now Breed Millions by August. No Filth, No Flies, Less Disease

Certain authorities are predicting more than usual trouble with flies during the coming summer, owing largely to the comparatively mild winter. Whether or not the theory is correct, no chances should be taken. The common housefly is one of man's most dangerous enemies. As a means of spreading a number of serious diseases such as typhoid fever, dysentery and tuberculosis the fly plays a sinister role. Its ability to reproduce itself is amazing, the descendants of a single pair numbering millions in a season under ordinary favourable conditions. Such conditions exist where rubbish, filth and manure are left unprotected so that flies may lay their eggs therein. Consequently, the first principle in exterminating the pests is rigid cleanliness and then more cleanliness. The fly avoids cleanly conditions as men avoid the plague. Dirt and disorder are its natural habitat. It is of prime importance that every individual and every community should see that the winter's accumulation of dirt and rubbish should be carefully collected and destroyed. Manure should be so handled, either in fly-proof pits, or bins with maggot traps, as to prevent flies breeding. It is important also that garbage be carefully gathered and disposed of, for it too provides sanctuary for flies.

In addition to combating them in their breeding places, flies should be killed by any and every means available, especially early in the season.

Further, it is essential that food products be kept properly screened from flies. Civic authorities should insist on shopkeepers so protecting their wares and endeavour by every possible mean to have householders take like precautions. The time to begin is now. Far more can be accomplished in the springtime with less expenditure of effort than at any other season of the year.—A. D.

NATIONAL FIRE PROTECTION ASSOCIATION ANNUAL MEETING

The National Fire Protection Association, with headquarters at Boston, Mass., will hold its Twenty-Third Annual Meeting at the Chateau Laurier, Ottawa, Canada, on May 6th, 7th and 8th. A strong Canadian committee, under the Chairmanship of Mr. John B. Laidlaw of Toronto is co-operating with the Association and it is expected that the meeting will be of great value in furthering means for checking Canada's criminal fire waste.

Goitre, Its Incidence, Course, Causation, Prophylaxis and Treatment is the subject of a report prepared by Dr. Francis J. Shepherd for the Commission of Conservation. It has been published in pamphlet form. Copies of this report may be obtained on making application to the Commission of Conservation.

Technically Trained Foresters in Demand

Qualified Men are Destined to Play Larger Part in Handling Forest Resources

The increasing realization of the value of technical forestry training is proved by the number of corporations in eastern Canada which now employ men with such training. Among these are the Canadian Pacific Railway Company and the following timber-owning concerns: Laurentide Company, Riorion Pulp and Paper Company, St. Maurice Paper Company, Brown Corporation, Belgo-Canadian Pulp and Paper Company, and Canada Paper Company. It is expected that both the Abitibi Power and Paper Company, and the W. B. Snowball Company will establish forestry departments in the near future. The latter formerly employed a forester.

The Laurentide and Riorion Companies are already engaged upon extensive reforestation propagandas, and the Abitibi Company is expecting to follow suit in the near future.

Aside from forest nursery and planting work, foresters in private employ in Canada have thus far found the greatest demand for their services in connection with forest mapping and cruising. There is an increasing recognition of the superior results accomplished along these lines by men with technical forestry training, supplemented by practical experience. Like other members of the engineering profession, the forester recognizes fully the necessity of securing practical experience after graduation, before he is ready for a position involving responsibility and the exercise of mature judgment.

The forestry profession is still one of the youngest on this continent. The time is however, rapidly approaching when foresters in both public and private employ will wield a much greater influence than at present in so shaping the methods of logging, that cut-over lands will be left in a condition to produce successive crops of timber indefinitely. Present methods of logging are, as a rule, destructive rather than constructive, in that the productive capacity of the soil is largely destroyed as a result of the way in which the operation is carried on.

—C. L.

REVENUE FROM FORESTS IN NEW BRUNSWICK

During the past year the forest revenues of the Province of New Brunswick, from Crown Lands, reached the highest figure in the history of the province with the exception of the years 1913 and 1914, when there were very heavy revenues in the form of bonuses, consequent upon the renewal of timber licenses. The forest revenues for the year ended October 31, 1918, aggregate \$582,533. This figure includes \$30,555 from the fire protection tax. The aggregate of forest revenues during the preceding year was \$443,848. These figures show the extent to which the Provincial Government is dependent upon its revenues from Crown timber lands, to meet the

expenses of administration of the Government. New Brunswick has a well organized forest service, which is exerting every effort to protect the forest lands of the province, with a view to the perpetual maintenance of their productivity.—C. L.

New Notifiable Disease

Another epidemic disease has been recently made notifiable in England and Wales under the name of "lethargic encephalitis". The disease has been known in Europe since about 1890, but "the first case noted in England occurred in February, 1918". Other cases followed and the epidemic—confined to a relatively small area—was apparently stamped out in June. In all, some 164 cases were reported during that time. "Clinically the disease is a general infectious disease characterized by manifestations originating in the central nervous system of which the most frequent and characteristic are progressive lethargy or stupor and lesion in or about the nuclei of the third pair of cranial nerves. . . . There seems to be little doubt that there is always a certain amount of fever in an early stage, although occasionally it will not be observed for several days after the onset of the symptoms. The common range is between 101° F. and 102° F. but temperatures up to 104° F. are not very uncommon. . . . A period of subnormal temperature not infrequently follows."—*Abstract from Bulletin of the U.S. Public Health Service.*

RURAL INDUSTRY

The government of Great Britain has announced a policy of constructing central power plants at strategic points throughout the country for generating electricity in large units, which is much more economical than the operation of small individual plants. Lloyd George in referring to this said:

"One of the most important things the Government has in mind is the utilization of our great mineral resources for the production of electrical power on a great scale. This will enable rural industries to be created so that workmen should find remunerative employment under conditions where they can bring up their children in the healthier atmosphere of the country. A great electrical power scheme would also assist in cheapening and increasing the efficiency of our town industries, so as to increase the output, diminish the cost, and thus enable all classes interested in production to benefit."

WILL PRODUCE FISH MEAL

It is hoped to produce a million pounds of fish meal annually from fish waste and offal at a plant that is to be established at Tiverton, Nova Scotia. Most of the product will probably be marketed in the Maritime Provinces.

The production of oysters in British Columbia, though limited as yet, is increasing. In 1917, the province produced 1,789 barrels, which is approximately 15 per cent. in excess of the 1916 catch.

BEWARE PATENT PILLS

The oft repeated warning must again ring out! Beware of the so-called "patent" medicine pills!

According to a report in a recent issue of a western paper, a little four-year-old girl died on Wednesday, March 19th, after eating some of these pills with a very seductive name. The paper states that the doctor who conducted the post mortem, declared that the pills "contained strychnine, belladonna and aloin, which were all of vegetable origin and he imagined a few taken would cause serious trouble in a young child". The coroner, "expressed the opinion that the advertising on the boxes was desperately misleading. They might be a very good pill for purgative purposes, but they were fixed up so nicely that children would eat them readily, and a number of inquests had been held over children who had done so". The coroner stated that "juries had passed recommendations urging that regulations should be passed requiring them to be labelled 'poison' but nothing had come of them".

A recommendation such as the foregoing is but reasonable and is simply following the custom in Great Britain where all preparatory preparations containing "poisons" are so labelled, as laid down by law. The suggestion of the British Columbia jury is a very wise and proper one.

—C. A. Hodgkiss, M.D.

QUEBEC'S FOREST EXPENDITURE

The legislature of Quebec has appropriated \$100,000 for the provincial forest service and the inspection of lands for the fiscal year ending June 30, 1920; also \$7,000 for the maintenance of the provincial forest nursery at Berthierville. These amounts are very materially supplemented by the expenditures on forest fire protection incurred by the Ottawa River, St. Maurice, Laurentian and Southern St. Lawrence forest protective associations, which patrol the great bulk of the licensed and privately owned timber lands in the province. The expenditures of these four associations on fire protection during the past year total \$177,729.—C. L.

DANGER IN UNSIGHTLY RUINS

Why is it that so many villages, towns and cities permit the wreckage resulting from serious fires to remain in the very centre of their business areas? Every traveller who visits villages and smaller towns especially, must have noticed these disfigurements. Ruined buildings extend right to the sidewalk, filled with water and partly burned timbers, without even a railing to prevent accidents to pedestrians. Canada has long held the world's record in the matter of fire losses, and the fact that burned ruins are permitted to remain for years in scores of communities, indicates how shameless Canadians are with respect to their prodigality.

Give Kiddies a Chance

Every baby should have a fair fighting chance to survive the first year of life undamaged.

At present one baby in every ten dies before its first birthday, and more still die before they are born, but terrible as is this waste of valuable young life, the child damage rate is an even greater menace to the country.

Two-thirds of the children who attain school age are found to be suffering from preventable physical defects which entail suffering to them in the struggle for life.

The National Service figures show that 40 per cent of the male adult population are classed as C3, and there is evidence to show that the statistics of the female population are closely similar.

The waste of life and this damage rate could be largely prevented.

At least half of these baby lives could be saved and made worth living—if we cared enough; if we, parents, doctors, teachers and all citizens, worked together to give the children a better chance.

Decide now that you will take some direct share in the campaign for saving the babies.

Give your own children every chance to grow up healthy citizens by ensuring that your home is healthy.

Dust and refuse should be burnt, flies destroyed, your rooms flushed with fresh air day and night, and your children supplied with regular meals of well-cooked, wholesome food and allowed ample sleep.

Take an interest in the children of your neighbourhood.

Get all the information you can about Baby Welfare.

Visit the nearest Mothers' and Babies' Club or Infant Welfare Centre and offer your help to the committee.

Help to cultivate local public opinion in support of Maternity and Child Welfare work.

Ask at the Town Hall or the offices of the Health or Sanitary Authority for information about Child Welfare work in your district.—*Bulletin, National Baby Week Council.*

TO CONSIDER INFANT WELFARE

A National Conference on Infant Welfare will be held in London, England, on July 1st, 2nd and 3rd, 1919. Problems related to the medical, social, racial and industrial aspects of infant and child welfare will be discussed. The Conference is being called by the National League for Health, Maternity and Child Welfare, the officials of which urge that similar conferences be organized in other countries during the present year. Then in 1920, an International Congress is planned to bring together the results and findings for further detailed discussion. It is hoped in this way to carry out the plans of the League, which, but for the war, would have convened an International Congress in September, 1915.

**Commission of Conservation
CANADA**

Sir Clifford Stovon, K.C.M.G.
Chairman
JAMES WHITE
Assistant to Chairman and Deputy
Head

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, MAY, 1919

BROKEN GLASS DANGEROUS

Many people who live in cities and towns evince about the minimum consideration for other members of the community. They are quite oblivious of community rights unless, at the same time, their own personal comfort or convenience is endangered. A simple concrete illustration of this is the careless manner in which broken glassware is left in city streets. During the winter, many bottles and jars are broken by delivery men. The broken parts are left where they fall and with the disappearance of the snow in the spring, patches of broken glass are left in the winter's accumulation of rubbish and filth, a constant menace to all rubber-tired vehicles. Often, too, such bottles are broken near the entrances of homes and, in-memoriam of being gathered up and removed, are left as they fell. Painful and more or less serious accidents have occurred to many children, who have stepped or fallen on broken milk bottles. Civic authorities might well consider the advisability of making such forms of carelessness punishable offences. By making examples of a few, this class of offenders might be made to realize that sooner or later inconsiderateness of others acts as a boomerang.

SELECTING MEMORIALS

Man has always been a maker of memorials. His desire to be so is a manifestation of his innate craving for immortality. From the very earliest times he has aspired to keep alive at least the memories of great men, or of great deeds, or of outstanding events. The Greatest of Teachers did not neglect this elemental phase of human character and one of the most beautiful services of the Christian church was founded as a memorial. With this end in view too, men have created, often with a tremendous expenditure of labour, many different kinds of commemorative monuments. In most instances, these structures have long been of great historical value. The pyramids and obelisks of Egypt, the sculptured friezes and other forms of architecture of the Greeks and Romans and the shrines erected by the ancient Israelites and all proclaimed in unmistakable terms the character and spirit of the men who erected them, quite as much as they keep alive the memories

of the objects they were designed to commemorate.

During the past six months, very much has been said and written about memorials that will most fittingly call to the mind of future generations the splendid deeds of sacrifice performed throughout the war. To do this in the fullest and noblest sense, the memorials should possess characteristics that will symbolize the spirit that animated the men who fought and died. It is left for those who sacrificed in a lesser degree, or sacrificed not at all, to determine how these characteristics are to be exemplified.

The greater number of the memorials so far suggested are designed with a view to their being of service to the communities in which they will be erected. The time when it was the custom to place bronze effigies of soldiers on granite pillars as an excuse for forgetting deeds of valour is happily past. At the same time, the building of hospitals, schools, halls, libraries, churches and other community institutions for memorial purposes should be more than an expression of a materialistic age. Such institutions may be of deep and lasting service, or they may be merely utilitarian. Such structures can be memorials in any real sense only if those who erect them have felt deep within them the spirit of service and have given adequate thought to the visible embodiment of that spirit. Further, there is a danger that these, of themselves, will in time lose their glamour. To prevent this, it will be desirable to hold patriotic festivals in them on the anniversaries of the great battles of the war in which special attention should be paid to the spirit of service as well as to the memory of men and women who transcribed their conception of service in terms of supreme sacrifice. It is essential that memorials, whatever their form, should convey something of the beauty and courage and love of country that inspired the heroic deeds. It is important that they should be well and truly built, so that centuries hence they will recall these deeds to men and women and create in them a desire to cherish the memories of those who died in a titanic struggle for human freedom. In any case, it should be realized that future generations will be in a position to judge with unflinching accuracy whether the motives that prompted the building of the memorials were worthy ones or merely shams.

—A. D.

IS IT EXPLOITATION?

Two days in every week large numbers of short lobsters are arriving in Boston mixed with the market size shipped by boat from Yarmouth. There is no law in Nova Scotia to stop this injurious practice, for the authorities decided a few years ago to allow baby lobsters to be caught and disposed of in any manner.

With the belated season this spring, the shipments of shorts went up to a point never reached before. The inspector doubled his staff and stationed men on every dealer's premises. The cull was enormous from the very first, and I think the seizures last week

must have amounted to over 12,000 little lobsters for which the shippers did not receive a penny (it is unlawful to trade in them here), and Massachusetts profited by a lot which next year will be fine market mediums, bringing 50 cents each at the least calculation. In other words, the shippers have handed over to their cousins across the bay potential wealth to the tune of \$6,000 a week, not counting the increment from breeders. How those exotics multiply is easily seen from the fact that the Boston Lobster Company paid the fishermen of Rockport \$15,000 for three months fishing last fall.—M. H. Nickerson in *The Fishing Gazette*, New York.

REFORESTATION ESSENTIAL.

It is sometimes argued that we do not need to concern ourselves about the forests of the future, because the forests we now have will last us for 50 or 100 years, or even longer; that it is futile to worry about the matter, so long as we have wood. Of course, it is possible to estimate the length of time our present supply of timber will hold out, assuming certain fixed domestic and foreign demands (demands, incidentally, which are by no means fixed). This question has no direct bearing on the problem of keeping forest lands productive. Let us suppose, for example, that under certain estimated demands our present forests will last us for a hundred years. That is no reason at all why we should allow cut-over lands to become wastes or near-wastes. In the first place, it takes a hundred years, let us say, for a seedling to grow into a respectable tree, fit for the saw. The trees we are now cutting are, on the average, much older. The time to start our new forests, therefore, is now—not a hundred years from now—for otherwise we should have a long period during which we should be without adequate supplies of timber. In the second place, those who argue that no present action is necessary overlook one of the most vital facts in the whole forest problem, namely, that the destruction of forests in any one locality, district, or region has a distinctly adverse influence on the prosperity of the country as a whole. The forest problem is essentially a local problem.

—F. E. Olmsted.

WATER POWER OF THE EMPIRE

The author of articles on the Water Power of the Empire in the *Times Engineering Supplement* suggests that the interests of the Empire as a whole and of the individual countries in which water power exists, can best be served by calling into consultation the financial community, the manufacturers of machinery, prospective power users and the owners of water power rights both privately held or those retained by the Crown. The idea would be to form a central committee representing these interests and its primary duty would be to co-operate hydro-electric enterprises in the British Empire and to bring those interested into close touch with each other. It is claimed that such a body would be in a position to give the soundest advice and should have the confidence

of all concerned, and that if suitably composed and with loyal co-operation between its constituents it could do much to further the development of water power and of dependent industries.

Special Treatment for Psychopathic Offenders

A very commendable step has quite recently been taken by the justices of the City of Birmingham, England, to give effect to a scheme for the examination and differential treatment of this class of offenders.

An expert in mental diseases has been secured as court doctor to advise in cases not coming under the examination of the prison medical officer, as for instance, cases where the accused persons are remanded on bail or charged on summons.

It is proposed that, in all prosecutions where there is reason to suspect the alleged offender is mentally abnormal, the court shall postpone action until full enquiry on this point has been made by the expert, the prison medical officer or by both in consultation.

On the further hearing of the case, if the justices decide to convict, this expert evidence will be brought out in court and taken into consideration in settling the mode of treatment which will best serve the interests of the offender and the public.

It is expected that a considerable measure of individualised treatment will be possible under the provisions the justices possess under the "Probation of Offenders Act"—and it will be possible to include under the conditions of probation, that the person so placed shall report himself periodically to the court doctor, he shall observe such instructions regarding his mode of life and shall accept such medical advice and treatment as the court doctor may order.

This excellent example is worthy of imitation in our larger centres.

Labour Income on Farms

The term "farm labour income" is not always clearly understood. It must be remembered that clothing, fuel, groceries, lighting and other living expenses come out of the farmer's labour income just the same as they would come out of the salary of a man who receives a salary. Of course the farmer's table is largely supplied from the products grown on the farm.

The farm business survey conducted in Oxford county in 1918, by the farm survey department at O.A.C., Guelph, showed that the average net labour income on farms of from 46 to 60 acres in that district was \$647. Compare this result with the statement of Mr. Arthur Christie published in the April issue of "Conservation", and the advantages of intelligent businesslike and intensive methods on the farm become apparent. Mr. Christie's farm labour income in 1918 on a fifty-acre farm was \$1,901.87. From numerous inquiries that have been received however, it seemed advisable to define more fully the meaning of the term used.

Houses Only Homes When They Are Safe

Defective Appliances in Houses Cause Many Serious and Costly Accidents

A home should be a safety centre—a sanctuary for every member of the family that occupies it. Dangerous conditions, such as defective electric or gas fittings, insanitary plumbing, unprotected stairways, or stairways without railings and which invite accidents, are lamentably common in our houses. In a survey of nearly 30,000 accidents in the city of Chicago covering a period of eleven years, it was found that over 51 per cent were household accidents. These caused the death, or permanently crippled thousands of persons and yet the citizens of the United States claim to be a "home-loving people". A similar analysis of Canadian statistics would probably prove that Canada was no more successful in converting houses into homes. Faulty building construction, defective wiring and plumbing are pitifully common and, in too many instances, are winked at by so-called building inspectors. Householders themselves use rocking-chairs for step-ladders, place kettles of boiling water so that small children can tumble into them, have unfastened rugs on highly polished, slippery floors, or fasten windows down to conserve heat at the expense of ventilation. These and similar practices cause the death, or result in crippling hundreds of Canadians every year. If houses and other dwellings were transformed into proper homes, these losses, which are truly national as well as individual, would be reduced to a minimum. But that little word "if" marks a gulf that it may require generations to bridge.

FORESTS AS FACTORS IN RECONSTRUCTION

Statesmen and business men have repeatedly emphasized the part that the further development of our natural resources must play in reconstruction after the war. Any such programme must take full account of the forests. Such increased development will assist materially in providing against unemployment, through the building up of new forest industries, in addition to the 5,000 wood-using industries already in existence. It will be a large factor in stabilizing economic conditions generally.

A large export trade is particularly essential to Canada, to redress her unfavourable trade balance, especially with the United States. In this direction, our forests hold a position of peculiar strategic importance, both actual and potential. In British Columbia, for example, it has been shown that the annual lumber cut can be increased five-fold, under good management, without impairing the forest capital stock. This means an enormous export trade to which the shortage of shipping is still the greatest obstacle.

The present and potential value of Canada's export lumber trade is indicated by the order recently placed by Great Britain for lumber from Canada, aggregating around \$50,000,000 in value. In the east, the value of our

pulpwood forests is indicated by the fact that the value of the exports of pulp and paper now total around \$60,000,000 annually. One-fourth of the newsprint used in the United States comes from Canada, and fifteen per cent of the pulp wood consumed in that country is the product of Canadian forests.

Our forests have a wealth-producing capacity, the possibilities of which, from a long-time viewpoint, have as yet been realized only in small part. To transmute these possibilities into permanent actualities requires, however, the general acceptance, by the people in general, and by Governments in particular, of the fundamental principle that the forest is a crop, rather than a mine, and that cutting operations on non-agricultural lands must be conducted always with a view to the perpetuation of the forest as such.

The practice of silviculture is still in its very infancy in Canada, as it is over most of North America. There is still far too strong a tendency toward the practice of forestry anywhere except in the woods. At the same time, it must always be realized that forestry is essentially a business proposition, and that business considerations place definite limitations upon what it is feasible to do in the direction of intensive methods.

On the other hand, the forest lands of Canada are predominantly Crown lands and are therefore, for the most part, the property of the people of the country. It follows that the public interest, from a long-time viewpoint, should govern in determining the conditions under which exploitation takes place. With the present increased stumpage values, many things in the direction of better management are now becoming economically feasible which would have been out of the question in years past.

Canada may well profit from the example set by the states of Australia, in connection with forest conservation. The states of Victoria and West Australia, in particular, have recently enacted forest legislation so progressive in character that our situation in Canada seems backward by contrast. This legislation sets a new pace, particularly as to land classification, forest reservation, control of cutting operations, reforestation, and amount of money to be spent on the protection and development of state forests generally.

Turning again to Canada, we find that, notwithstanding war conditions, truly remarkable progress toward better forest conservation has been made during the past year.—C. L.

BRITISH REFRIGERATOR CARS

The Food Investigation Board of the British Department of Scientific and Industrial Research recently completed a careful and detailed investigation into the problem of providing efficient refrigerator cars for the shipment of perishable foods. Many of the refrigerator cars heretofore used on British railways have been wasteful owing chiefly to faulty construction. Efforts are being put forth to achieve a design of car that will be free from the defects of those now in use.

Footwear and Health

Disraeli once said that "public health is the foundation on which reposes the happiness of the people and the power of the country". But public health is simply the sum total of the health of all of the individuals in any given community. Consequently, the health of the individual is of vital concern to the public at large. It is the duty of the public authority to create and foster the best conditions for the development of sound, healthy citizens. At the same time, it is the duty of the individual to become informed with respect to the functions of the body and the best means of maintaining it in a state of all-round health. Unfortunately, this knowledge is too generally neglected and custom and fashion have frequently done much injury to individual, and, therefore, to community health. For example, take the care of the feet. According to one authority, "sufficient men were rejected by the Canadian military authorities on account of bad feet to form several battalions". The American Museum of Safety states that 90 per cent of the civilian population have feet more or less deformed, resulting in lessened efficiency.

The Paris (France) Academy of Medicine is so impressed by the effects of high heels upon the health of women that it has made an appeal to the public to end this injurious fashion. The use of high heels and of narrow pointed shoes is the cause of hammer toes, bunions, corns, weak muscles, fallen arches, many of the backaches from which women suffer and, to some extent, of defective eyesight and nervous irritability. That high heeled shoes are still further a sad commentary on human intelligence is shown by the fact that in the United States during 1916, 1,149 people were killed and over 4,000 crippled from the result of falls on stairways, due to wearing high heeled shoes.

Shoes should conform to the shape of the feet. If the public will persistently demand such shoes, the manufacturers will supply them.—Adapted from article by Mrs. L. A. Hamilton of the Footwear Reform League.

All Men for an All Empire

Two million of our men joined up voluntarily at the beginning of the war.

Six million didn't.

One million couldn't, largely owing to physical defects from preventable causes.

"You cannot maintain an All Empire on C 3 men", said Lloyd George, and although he referred mainly to the health of the body it is equally true regarding the health of the mind.

—Sir Robert Baden-Powell.

With the exception of lobsters Canada's fish production showed a falling off in March as compared with the same month a year before. It is to be

Sciences and Arts Merit Encouragement

It is suggested that Federal Authorities Should Assist Universities

The present is an age more than tinged with materialism. Industrial magnates are not given too much credit for being philanthropically inclined when they set aside vast sums of money for investigations in the realm of pure science. In the long run it has been proven many times that such expenditures pay handsomely. It is becoming increasingly evident that pure science and applied industrial science will co-operate more and more as time goes on.

Prof. R. B. Thomson in the *University of Toronto Monthly* draws the following conclusions with respect to the possible future of scientific research in the industrial life of Canada: "A knowledge of industrial needs will act as a guide to many pure science workers, but it must not be forgotten that the future advance of applied science depends entirely on that of pure science—the theoretical science of our day is the applied science of the next."

It seems to me that there is something so vitally important in this, not only to the industries of the country, but to the honourable position which Canada is to take among the nations of the world that our Dominion Government should take cognizance of it. The supplementing of industrial research work by scholarships and fellowships may be valuable for the present—as a war emergency work—but the Dominion should realize that the future of Canada depends ultimately upon the position attained, not only by the pure sciences, but by the arts as well. Dominion grants for the furtherance of these subjects in our advanced seats of learning would go far towards establishing Canada's position among the nations."

REVIVING ARBOUR DAY

Tree-planting is something of a lost art in Canada. For many years the health-giving and wholesome custom of having children spend one day in the year in planting trees and flowers has been neglected, but fortunately there is now a widespread movement to revive the practice. It is being urged that tree-planting is a fitting manner in which to commemorate the service of Canadians who have died in battle. The idea has much to commend it and will doubtless receive hearty support in many quarters. But if, in addition to the establishment of memorial tree plantations, interest could be renewed in the old-time Arbour day the benefits would be more than doubled. What school-boy of a generation or more ago, who shared in the annual celebration of Arbour day but has an especial interest even yet in a tree, or a group of trees, which he helped to plant and care for near the old school building. Both children and grown-ups are the better for associating with trees and flowers. Arbour day is an annual that merits transformation into a hardy perennial.

—J. D.
hoped that the increased production of fish brought about by the war will not be allowed to decline.