Conservation

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Canadian Timber Comes Into Its Own

Large Users Decide on its Use Exclusively in Construction Work.

The decision of the various Dominion Government departments and of the Canadian Pacific railway to use Canadian timber only, to the exclusion of imported timber, is a decided advantage in the utilization of Canadian timber and, therefore, marks a definite gain for the cause of conservation in Canada.

Southern pine, even in 1915, when Canada was at war and when there was a great decrease in the consumption of lumber, was imported to the extent of 95,000,000 feet, having a value of over $3,000,000. In previous years, very much larger quantities were imported despite an adverse trade balance for Canada and in the face of a supply in Canada of better timber at an equal or lower cost, grown and manufactured entirely within the Dominion.

The Dominion Government has in past years used many million feet of Southern pine in various public works, but henceforth Canadian timber will be used to the exclusion of the foreign article. Douglas fir will replace Southern pine in such works as Quebec and Montreal harbour improvements and Hudson Bay terminals. Douglas fir has been used entirely in the Toronto Harbour works, as a clause was inserted in that contract calling for Canadian material. The action of Baron Shaughnessy in ruling that Canadian timber only shall be used in works of the Canadian Pacific railway shows that large private users are also finding it consistent with present conditions to use Canadian products. Other consumers throughout Eastern Canada, large and small, will follow the lead of the two largest users. Architectural and engineering professions also are rapidly replacing Southern pine by Douglas fir and the imported woods by the home grown product.—W. J. Van D.

Clean Up the City

Early Organization of Forces will Secure Effective Results

It is not too early for the health departments of our municipalities to prepare for their spring clean-up day. The snow will soon be gone, exposing to view the accumulated refuse of the winter months. In Canada we are favoured with a covering mantle of snow during several months, and, as a consequence, are inclined to be somewhat careless of sanitary conditions. With the coming of warmer weather, this neglect becomes a source of great danger, and, unless prompt action is taken, may give rise to serious epidemics.

Municipal Councils and Boards of Health should initiate without delay plans for a general spring clean-up. Generous appropriations should be made for the purpose and a thorough organization developed for removal of refuse.

The local pride of the people should be appealed to on behalf of a clean home—an appeal rarely made in vain. In many of our towns and cities there are organizations interested in public questions, only requiring initiative to secure effective action. The beautifying of their home town should be made an incentive for energetic effort, thus increasing their interest and enthusiasm for the place called "Home."

Fish Waste Can Be Made Into Glue

Good Opening for Men with Technical Knowledge to Establish Profitable Business.

Some attempt has been made in Canada to produce glue from fish waste, but hitherto it has usually been found that production involves too much technical knowledge and too many highly paid officers. That fish glue, however, can be manufactured in Canada at a profit is clear from the success of the Russia glue works at Gloucester. These glue works were started by two men, very humble men, some years ago; they bought fish skins and fish heads and have manufactured glue and fertilizer and such a success has their venture been that the company which they organized has become very prosperous. The works are now about ten times the extent they were a few years ago and they cannot adequately supply the demand for their product—a demand created by the excellence of the glue. There is quite an opening in regard to fish glue products. Canadian fishermen waste an enormous amount of material, which would produce fish glue, on the banks and in the Gulf of St. Lawrence fisheries, and the amount per annum would startle anybody. The fish waste is now simply dumped into the sea.—Dr. E. E. Prince, in "Canada's Unutilized Fisheries Resources."

Waste in Forest Protection

Because of lack of field supervision, more money is wasted in fire protection today than is used economically. Fire wardens are nearly all temporary men, and if one does not give them supervision and training, and does not try to keep the good men from year to year, one cannot get the results desired. In the first fire protection services of Canada, far more wardens were wasting money than were making good use of it. Unless we have good permanent supervision of fire protection and have the same men as permanent rangers year after year we will not get the good results because we have large areas to protect with very small sums of money.—McMillan.

Popular Support Required

Importance of Independent Educational Work in Protecting Wild Life.

There is no dearth in Canada of governmental agencies actively engaged in conserving bird and animal life. While the work is mainly in the hands of the provinces, several branches of the federal government are also rendering invaluable service. Unfortunately, popular support of official measures, which is the most potent single factor in insuring their success, is very much lacking. The most serious obstacles and difficulties arise from the lack of strong unofficial societies to carry on independent work.

The great advance of wild life protection in the United States, in recent years, is due largely to the efforts of such bodies as the American Game Protective and Propagation Association, the National Association of Audubon Societies, the Camp Fire Club and the American Bison Society. Similar organizations exist in Canada, and the excellent work of the Canadian Society for the Protection of Birds, the Independent Naturalists Association, the Dominion Game Protective and Trap-Shooting Association and others can not be too highly commended. But Canadian organizations of this character have failed to develop their efforts and to utilize their opportunities to the extent which their field of usefulness permits and invites. It must be recognized that, while the initiative in game law reforms may come from public officials, the success of practical measures requires popular support, which, in turn, must depend upon persistent educational efforts. The scope along these lines for independent societies is unlimited, and it is to be hoped that, as the need for better protection of wild life becomes steadily more apparent, this branch of the work will be successful in enlisting the services of an increasing number of active workers.

Technical Training for Fishermen

Education in the Catching and Curing of Fish a Pressing Need

Rev. Abbè D. F. Leger, of St. Paul, N.B., writes as follows, re the advantages of training of fishermen and proper packing and shipping of fish: "I have been much interested in an article which appeared in the December issue of Conservation, entitled 'Development of Canadian Fisheries.' It was a short resumé of addresses by Mr. D. J. Byrne, president of the Canadian Fisheries Association, and Dr. Jas. W. Robertson. Mr. Byrne endeavoured chiefly to show that every Canadian family should make frequent use as food of the different species of fish which abound on the coasts of our Maritime Provinces, while Dr. Robertson urged the establishment of schools in the eastern provinces, to prepare young men for the fishing industry, as is already done in England, Scotland and France, where the best methods of salting and preparing fish for the market are taught. These are practical ideas and should find an echo among the fishing communities of the Maritime Provinces.

"We see with extreme pleasure and great hope for the future of our country, the rapid and methodical advancement which our Canadian farmers have made, above all in recent years. It goes without saying that our fisheries, well understood, ought to be and are, in fact, supplementary to agriculture, since they aid powerfully in the feeding of our people.

"The Federal Government has already accomplished much by the fish-culture establishments along our coasts. Undoubtedly this is a step in advance that we much appreciate. Let us ask it now to educate us, not only as to the mode of catching large quantities of fish, but as to the best means of preserving the catch. For, what is the use of catching a great quantity and then losing a great part of it before putting it into the barrel?

"The great fault, as far as I have been able to study the matter, is that of keeping on fishing and fishing, making quantity instead of quality the principal end. This, I believe, is the great mistake to correct. We know that fish exposed to the sun or even simply to the air, decays more quickly than meat; a few hours are sufficient to render it unfit for food.

"My experience is that, during the twenty-six years that I have been buying fish, perhaps only once in a hundred times have I been able to find well preserved fish on our local markets.

"To what causes can we attribute this bad quality of the fish on our markets? (1) Too long a time elapses before putting it in the barrel; (2) barrels are used which do not properly retain the pickle; (3) vessels are used which have already been in service, they could be used again with necessary precautions, but are filled with the old salt and pickle from the previous season—often, in certain localities, no scruple is made of using these same barrels without first well cleaning them; (4) the fish thus preserved is placed in storehouses with all sorts of other commodities, where there may be exhalations of fœtid greases; (5) sometimes the salted fish is left for several days on the wharves, railway stations or other public places, exposed to all weathers, before its final sale.

"All these glaring deficiencies are due to the fact that the fishermen are anxious, before all else, to obtain great catches, and the dealers, the maximum of money with the minimum of work and expense.

"However, it is evident that the numerous class who like fish do not wish to buy it in bad condition, etc. Naturally, they will pay a good price for a good article, as the following, from January Conservation, amply proves:—

"To dispose of 600 barrels of cured herring at $11 per barrel, f.o.b. Nova Scotia, while his neighbors were getting only from $4 to $4.50 per barrel, was, last summer, the fortunate experience of a fish packer at Goldboro, Guysborough county, N. S. This highly satisfactory result was secured by discarding the old-fashioned Nova Scotian style of packing in favour of the modern Scotch method of carefully packing the fish in tight, well-made barrels that will retain the pickle and preserve the flavour. This was done in consequence of the representations of Mr. J. J. Cowie, inspector of pickled fish for the Fisheries Branch, who, at the request of the Goldboro firm, secured an expert from Scotland to take charge of the work. As a result of this valuable object lesson, Mr. S. Y. Wilson, a large dealer of Halifax, has determined to put up some 2,000 barrels next summer in the Scotch way.

"Who is going to teach us this good method in New Brunswick and Prince Edward Island? Will men be found as courageous and with as much initiative as those in Nova Scotia? We hope so, especially with the active encouragement which we expect from our governments."

Offer to Canadian Schools

National Association of Audubon Societies Places Advantages at Disposal of Our School Children

At the last annual meeting of the Commission of Conservation, Dr. T. Gilbert Pearson, secretary of the National Association of Audubon Societies, of New York, gave a very interesting and instructive address on Bird Reservations.

The Association is international in its scope, and an outstanding feature of its work for the protection of bird life is the education of children to a love of wild birds. Dr. Pearson has kindly arranged to extend to Canadian school children all the advantages of this work, and it is hoped that school principals and teachers will interest their pupils in the great work of saving Canada's wild bird life.

To this end Dr. Pearson says: "For the past few years we have engaged in systematic organization of the school children into classes for bird study and bird protection. The children each pay a fee of ten cents, and receive material which costs us much more than that to publish and place in their hands. This consists of a series of excellent coloured pictures of birds, together with outline drawings, which the children, by means of water colours or crayons, can fill in and thus fasten in their minds the correct colouring of the various birds. The children also receive a very pretty bird-button bearing the words 'Audubon Society,'" To the teacher who forms a class of ten or more, and sends in their fees to the Audubon Society, 1974 Broadway Avenue, New York, there will be forwarded free for one year the magazine Bird Lore and other matter on the subject of bird study. In 1915 about 150,000 children were thus organized in the United States.

Dr. Pearson further states: "As a further indication that there is nothing of a commercial character about this proposition, I may say that this work last year cost us at the rate of 26 cents for each child enrolled. For the present school year we have at our disposal a fund of $26,000 to use in this work, and I shall be very happy to share the advantages of this plan with the children of Canada."

There is thus placed before our school teachers an opportunity to interest pupils in this branch of nature study and at the same time secure for themselves valuable material to assist them in their work.

Protection of Wild Life

Some Measures Essential to the Conservation of Canada's Wild Birds and Animals

If the wild life of Canada is to receive proper protection, it is essential that several important steps be taken with the least possible delay. The following measures are not mentioned in the order of their relative importance, for each of them is essential to a complete system of protection and merits the whole-hearted advocacy of every public-spirited citizen.

(1) Careful revision of the provincial acts governing the protection of insectivorous birds, to ensure that no valuable species are included on the "black list."

(2) Negotiation of a migratory bird treaty between Canada and the United States.

(3) The selection of suitable areas throughout Canada, and their erection into bird sanctuaries.

(4) Adequate protection for the sea birds of the Atlantic coast.

(5) Close restriction and, where feasible, total prohibition of the sale of game.

(6) Thorough revision of the Northwest Game Act and provision for its strict enforcement.

(7) Organization of strong, independent societies to create a public opinion of sufficient strength to obtain and enforce proper protective laws.

Marketing of American Furs

United States Making Progress in Fur Trade Owing to the War

The fur trade, which was demoralized during 1914, owing to the disruption of European commerce, has gradually assumed a healthier condition. The most important development in this trade since the outbreak of war has been the organization of a New York fur sales agency which held its first sale in January. In past years London has been the Mecca of fur buyers, but the state of continental trade has seriously affected recent London sales. The organization of the New York sale has served to bring the fur dealers of North America together, and there is no doubt the new corporation willl make every effort to attract foreign buyers and to supplant London as the world's market for pelts.

During 1915 the fur trade of Saskatchewan prospered greatly. Over 950,000 pelts, valued at approximately $600,000, were marketed, as compared with slightly over 700,000 pelts in 1914. The number of dealers reporting was 131.

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 the proper conservation of the same, together with timely articles covering town-planning and public health.

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OTTAWA, MARCH, 1916

THE COMMISSION OF CONSERVATION

It is the function of the Commission of Conservation not so much to *do* things as to *start* things; we are not an executive body. Our functions, our activities, are more or less limited, first, by the number of men that we have to do the work, and the expense involved in doing it, and, second, by the fact that a great many of the things in which we are particularly concerned are not things which we ourselves can do, but things of the kind which must be done by leading men throughout the country, who are capable of taking up movements and carrying them on in a way that the Commission of Conservation could not think of doing itself. Therefore it is the function of the Commission of Conservation not so much to *do* things as to *start* things, to investigate, to bring about co-relations between the different people, individuals and bodies, which result in getting a movement started in the right direction and giving it our blessing and helping it along as well as we can after it is started.—Sir Clifford Sifton, at the preliminary conference to form a Civic Improvement League for Canada.

Fire Prevention in the Home

Clean-up Day is as Necessary Inside the Home as Outside

Carelessness is credited with seventy-five per cent of Canada's enormous fire loss. During 1915 no fewer than 676 fires occurred in dwelling houses. Of this number it is safe to say that a great majority were attributed to the threadbare excuse "cause unknown." Were cause of many of these fires correctly reported, it would be "careless and untidy housekeeping."

Clean-up day is as necessary inside the house as out. Closets, attics and other out-of-the-way places harbour accumulations of old clothes, discarded furniture, books, waste paper, etc., all greatly increasing the fire hazard. Matches left in the pockets of clothes may easily ignite from friction in swinging against a wall. Sparks from a crack in the chimney passing through an attic may start a fire among the contents. Defective stovepipes and flues, accumulations of dust etc., in hot air pipes, wood and inflammable material too near furnaces, are constantly causing fires in dwelling houses.

Canada cannot afford to continue this enormous sacrifice of her created resources. An average annual fire loss of approximately $23,000,000 for the past five years constitutes the blackest record of any country in the world. When all our power, both financial and physical, is required for the great task in hand, the housewives in Canada should carefully and consistently clean up their homes, remedy all dangerous conditions, remove inflammable material, and assist in reducing the enormous drain which is taxing the financial resources of our people and our country.

DESTROY THE EARLY FLY

The bright sunny days of March and April are an inducement for the housefly to appear. An early start in destroying these pests should be made on the first fly seen, and the good work should be consistently and effectively carried on. The destruction of the early fly will mean the saving of valuable lives, as there is no more persistent carrier and distributor of disease than the house fly.

Discarded Fish Proved Edible

Fish Hitherto Utterly Wasted Would be an Acquisition to Canadian Dinner Tables

Probably not many people would care to experiment personally to test the edibility of doubtful food products, yet this is just what the staff of the biological station at St. Andrews, N.B., have been doing. For the past two or three seasons they have been trying on their mess tables, various kinds of fish that ordinarily are thrown away, and in several cases have found them delicious.

For instance, there is a peculiar greenish eel-like creature which, because it brings forth its young alive, has received the name, "mother-of-eels." A large specimen may weigh a couple of pounds. The biological staff found that it was white-fleshed and of splendid flavour and declared it to be one of the best fish they had had on the table. There are great quantities of mother-of-eels along the Atlantic coast, yet it is a fish the food value of which has not been realized at all.

Another fish, which is not being utilized in Canada, though, minus the head it has found its way into the fastidious British market, is the wolf-fish or sea-cat. Probably its ugliness prejudices people against it. Yet those who have eaten it say that it has a very superior flavour, having perfectly white flesh, whiter than halibut, flaky and delicious. Wolf-fish vary from 15 to 20 pounds in weight. Great quantities of them are caught in the Maritime provinces and simply thrown away, being considered as absolutely of no value.

The angler or goose-fish, another very ugly fish, which sometimes attains four or five feet in length, is in the same category. The tail portion, which is solid flesh, is very good. Minus the head, it also has been placed in recent years on the London market. It brings a good price and is regarded as an excellent fish.

New Brunswick Forestry Progress

Conservation Measures to be Adopted to Secure Continuous Production.

Mr. P. Z. Caverhill has been appointed Provincial Forester of New Brunswick, to take charge of the forest survey and classification of Crown lands, for which provision was made in the Act of 1913. Mr. Caverhill is a native of New Brunswick, and graduated from the forestry department of the provincial university in 1910. Following his graduation, he was employed by the Dominion Forestry Branch in the west, later transferring to the British Columbia Forest Branch, where he has held important administrative positions. Mr. Caverhill is an active member of the Canadian Society of Forest Engineers.

The Crown lands of New Brunswick comprise about 10,000 square miles, or approximately one-third the area of the province. The revenue to the Crown from this source is in the neighborhood of $500,000 annually. It is the object of the Government to administer these lands so that the annual timber growth will be harvested each year thus ensuring the receipt of the maximum annual revenue for all time, meanwhile furnishing the largest amount of wood material for the permanent use of the extensive timber-using industries of the province. In other words, the forest is to be regarded as a crop, the difference from other crops being that it takes much longer to grow.

The immediate work in hand, to serve as a basis for later administration, will include an estimate of standing timber on Crown lands, an estimate of the rate of growth of the various species under the varying conditions, and a classification of the soil, to determine which areas are primarily suitable for agriculture, and which are valuable only for the permanent production of forest crops. It is understood that a very large percentage of the Crown land area is of the latter class, the soil not being suitable for permanent agriculture.—*C.L.*

Fish Shortage in Britain

Average Price Now More Than Doubled, While Catch Very Much Reduced

During the past year, Canadian fishing interests have taken steps to relieve the shortage in Great Britain's fish supply arising from the restriction imposed by the war on fishing operations in the North Sea. The serious character of the shortage is indicated in a recent United States consular report dealing with the yield of the Scotch fisheries in 1915. In part the report states:—

The total quantity of fish other than shellfish landed in Scotland in 1915 was 2,297,818 cwt. (of 112 pounds), valued at $9,972,530, or an average of $4.34 per cwt., as compared with 6,926,241 cwt., $14,475,843, and $2.09, in 1914, and 7,267,328 cwt., $18,168,320, and $2.50 in 1913. The shortage in the catch as compared with 1914 thus amounted to 67 per cent, and in the corresponding value to 31 per cent, while the average price was more than doubled.

The greatly reduced landings of herrings were mainly responsible for the decreases, herrings representing 61 per cent of the total catch in 1913 and 63 per cent in 1914, and only 30 per cent of the markedly diminished total last year. The actual figures for herrings are 4,449,321 cwt. in 1913, 4,383,235 cwt. in 1914, 699,389 cwt. in 1915, with the corresponding values $10,160,050, $6,516,419, and $2,138,175.

The total quantity of whitefish, excluding herrings, mackerel, and other pelagic fish, landed during the year, was 1,522,471 cwt., as against 2,435,017 cwt. in 1914 and 2,735,252 cwt. in 1913; the value was $7,714,128, as against $7,819,030 and $7,945,836.

Stovepipes which enter chimneys in attics, or other unused rooms are extremely dangerous. Such arrangement should be avoided.

The Farm Home Grounds

Are the Grounds Around Your Home Neat? Many Must Answer in the Negative

During 1915, an agricultural survey was conducted by the Commission of Conservation on 400 farms in Ontario. In answer to the question "Are the grounds around the house neat?" it was found that 53 per cent of the replies were in the negative. In travelling over Canada one cannot but be impressed by the general untidiness and the absence of plan or system in the planting and care of the farm home grounds.

Clean-up and Arbor Day campaigns, conducted each spring in many of our towns and cities, should be extended to rural communities. The first question the farmer asks is: "What will it cost?" feeling that he cannot afford it. It will cost a little time in planning and work in planting, but these will be well repaid by the added attraction and consequently increased value of the farm. In many parts of Canada trees and shrubs for planting can often be secured from the wild. Nothing is better for home planting than the common trees from the surrounding woodland; no shrubs purchased from an agent are superior to those native to the district, and no purchased vines can surpass some of those growing wild, such as the Virginia creeper, bitter sweet or the wild grape. Many of the choicest wild flowers, when transplanted to the flower border, often flourish more than in the wild. Yet in spite of the ease with which these attractions may be obtained, many farm home grounds are unplanted, untidy and unattractive. All that is needed to make them really beautiful is a little planting and care.

The morning glories, used to beautify the cabin shown in the illustration, were planted by the housewife. In fact, it is usually the woman who takes an interest; the man is too busy with the crops to bother with such things.—*F.C.N.*

Care With Well Water

Pollution from Many Sources—Precautions for Early Spring

Melting snow, carrying with it in solution much of the refuse and decaying matter accumulated during the winter, constitutes a serious danger to the water supply from wells. Many wells are so constructed as to allow surface water to find its way around the tops, while in others, particularly dug wells, it seeps in through the brick lining near the top. Where there is any danger of this pollution it is a measure of safety to boil the water before it is used for human consumption.

For lining dug wells reinforced concrete has been successfully used. Concrete may be made practically impervious to water, so that a concrete-lined dug well can be polluted only from the bottom.

The water supply on the farm is always an important matter, and too much care cannot be taken in its location and protection. The farm well should be placed where the surface drainage from all possible sources of contamination is away from the well. If possible, it is advisable to provide impervious floors with watertight drains for farm buildings and stock pens. Under the same conditions concrete manure pits might well be provided not only to prevent the liquid manure from polluting the neighbouring soil but to save the manure. No garbage, manure, or rubbish should be dumped into sinks or basins in the immediate neighborhood, and such basins should be fenced off and kept free from polluting matter. The house should be provided with some safe method of sewage disposal, while slops and garbage from the kitchen should be deposited in tightly covered garbage cans and disposed of by burying in the fields, burning, etc. The use of privy vaults and leaching or overflowing cesspools should also be absolutely avoided, as they are likely to be sources of the worst contamination.

Cut 119

Cut 120

Ten cents' worth of Morning Glory Seed made the difference

SPRING FIRE PREVENTION SUGGESTIONS

Keep basements, attics and closets free from rubbish. Many fires originate in the rubbish heap.

Beware of the defective flue or chimney. Take down stovepipes and have them thoroughly cleaned, and have chimneys carefully examined at the same time.

Keep oily rags and floor polishing mops in metal boxes or cans, as they are liable to cause fires from spontaneous combustion.

Use care in the handling of matches. Keep them in metal receptacles and teach children how to use them. In putting away clothes remove all matches from pockets.

Bonfires have been the cause of much property damage. If one is necessary have it well removed from buildings and wooden fences, and before leaving it make sure it is thoroughly extinguished.

The safest place to use gasoline or other dry-cleaning compounds is out of doors, where the dangerous gases formed may be dissipated in the atmosphere.

Cleanliness makes for safety.

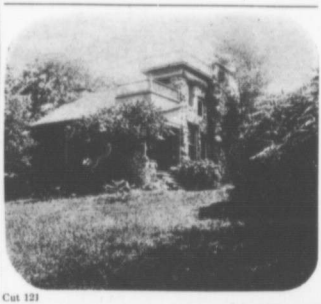
City Shade Trees Suffer

Careless Workers, and Unfavourable Growth Conditions Cause Much Loss

The protection of trees in cities is rapidly assuming a much more important position in municipal affairs. Twenty years ago, the trees received no special care, and were, as a whole, in much better condition than at the present time. But as a result of the growth of cities and towns, the trees cannot now obtain the pure air, moisture, humus, etc., necessary to their growth, and many beautiful city trees are forced to grow under conditions entirely foreign to their natural element.

Noxious gases from manufacturing processes are poisonous to shade trees. Roadways and pavements are laid entirely regardless of the damage done to tree roots. In some cities and towns, the chief essential is to have a sidewalk perfectly straight, no deviation to save a tree being considered, and the tree is sacrificed to this obsolete engineering theory. Careless teamsters, electric and telephone wiremen and malicious persons are also causes of serious damage to the shade trees of city streets. Many cities engage tree-butchers, whose only qualification for the work is the low wage at which they can be engaged, regardless of the great damage they do to the trees.

It is generally admitted that the shade tree is necessary in our cities, and should at least receive proper care and protection. Many trained arborists are now available for this work, men who have made close study of the conditions under which city shade trees have to exist. With the growing appreciation of the value of shade trees, there is no doubt that at least the larger cities will eventually have trained city foresters in charge of the trees.



Cut 121

SAFETY

The human element, the one thing that money cannot surround with a safeguard, is the primary cause of fully four-fifths of our accidents. The crime of carelessness is responsible for a large percentage of the widows, orphans and cripples.

Cut 122

Trees and Shrubs from Native Woods Make Home Beautiful