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## THE WAR AND AFTER.

The war and all its consequences must be accepted. At the same time we must not forget that there will be a time when the war will be over, and then, as in the past, we desire the nation to go on with the greatest amount of prosperity possible. Forests have been burned in Europe as a terrible necessity of war, but they were probably not one-tenth part so large or so valuable as the forests which have been burned in North America because of the terrible carelessness of peace. Whatever strain the war puts on citizens, we must not let go our hold on those basal things on which not only the *well-being*, but even the very *being* of the nation and of the world depends. No matter what happens, it will not do any good to so badly till our fields that they will produce less, or to so neglect our forests that they will burn down. All our civic, provincial, and national institutions must be maintained in full vigor



The Canadian Forestry Association could not hold its intended Convention, and some other lines of work will be shut off, but the remaining lines that are not shut off must be worked, so that a year hence, fifty years hence, the cause will be further ahead than it is today. Keeping up the regular institutions of the country is not such spectacular work as some other kinds, but it is just as necessary to the well-being of the state.

#### DR. WILLIAM SAUNDERS.

Dr. William Saunders, C.M.G., LL.D., F.R.S.C., for twenty-five years Director of Dominion Experimental Farms, died at his residence in London, Ont., on September 13, in his seventy-ninth year. He had been ill for about two years. Dr. Saunders' work for agriculture in Canada is so well known that it is necessary only to refer to it briefly. Born in Devonshire, England, he came to Canada when he was twelve years old. He was in early life a wholesale and manufacturing chemist, and was one of the founders of the Ontario College of Pharmacy, of which he was president for two years. He was founder and president for several years of the Ontario Entomological Society, and for thirteen years edited the *Canadian Entomologist*. He was president of the Ontario Fruit Growers' Association, of the Association for the Promotion of Agricultural Science, and of the Biological Section of the Royal Society of Canada, and was made an honorary member of many important societies.

In 1885 he was selected by the Dominion Government to inspect experimental farms in different countries, and in the three years following the Government established the five original experimental farms and appointed him Director, which post he held till about two years ago, when failing

health compelled his retirement. In that period Dr. Saunders built up an international reputation, especially in the field of cereal development. He also did much to develop the plums and other native fruits of western Canada. At the time of the establishment of the experimental farms agriculture in the Canadian West was still in the doubtful stage, and the success of wheat growing in the west has been, in a large measure, due to the work of these farms.



The Late Dr. Saunders.

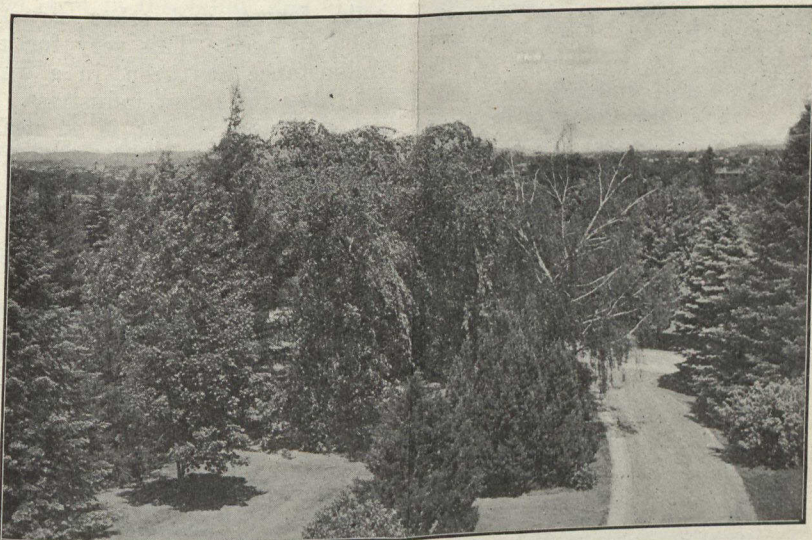
It will be seen from the above that Dr. Saunders was a man of wide sympathies, one who looked upon farming as part of the national life. In this outlook he included forestry, and he was one of the earliest members of the Canadian Forestry Association, and one of its first Directors. In those days, before conservation was popular, or even tolerated, it had a vigorous champion in Dr. Saunders.

Not only did he believe in forestry in the forests, but he believed in farm forestry. The arboretum and forest belts at the Central Experimental Farm, Ottawa, the plantations at



Brandon, Manitoba, and Indian Head, Saskatchewan, have been a source of inspiration and information in farm forestry, and the western plantings were the forerunners of the

system of free distribution of trees to farmers for planting about their homesteads, which has now grown to such immense proportions under the Dominion Forestry Branch.



View at Central Experimental Farm, Ottawa, in Arboretum laid out under the direction of the late Dr. Saunders.

#### DIRECTOR OF FORESTRY RETURNS.

Mr. R. H. Campbell, Dominion Director of Forestry, Ottawa, returned early in September from a visit of over two months in Europe. He first attended the fiftieth annual meeting of the Royal Scottish Arboricultural Society in Edinburgh, and visited with the members a number of the forest plantations in Scotland. Here he was honored by being made an Honorary Member of the Society, which has done so much to encourage forestry in Great Britain. After visiting some of the English forests, Mr. Campbell went to France, and spent some time in the southwest. He was at Nancy, the seat of the great French forestry school, when the first rumors of war were heard. He passed over to Switzerland, and was there when one country after another de-

clared war. This not only stopped his projected visits to German and Swedish forests, but rendered it difficult for him, for a time, to get back to London, which he eventually did, after some rather exciting and unpleasant incidents.

#### CALIFORNIA FIRE PROTECTION.

The California State Board of Forestry has issued its annual report for 1913. It shows the reasons for forest protection and the loss which all citizens of the state sustain from forest fires. Besides issuing literature to impress citizens with the enormous waste now going on through forest fires, the Board issues booklets for circulation throughout the schools of the state, to which present the idea in suitable form for the children to grasp. April 18 was proclaimed by the Governor as fire prevention day, when a concerted effort to reduce the number of fire traps was made, particularly on clearings in the farming districts.



# Nova Scotia's Forestry Opportunities

## Peculiar Situation and Advantages in the Bluenose Province

Those who travel extensively in Nova Scotia for the first time are struck by the large proportion of the soil which is still under woods, and which, to all appearances, is fit only to produce wood crops. In addition to this, the visitor is struck by the suitability of the climate for tree growth. Such a large proportion of the province is absolute forest land (authorities estimate it at from 65 to 70 per cent.) that to allow this to be neglected is not economy, but waste. Highways and railways must be kept up through it to get from place to place, and on the very lowest plane of economy it should be producing freight. Of course, nearly all of it is producing some freight, but, like the cut-over timber land of the rest of North America, it is not producing to the acre anything like it should.

Another thing that strikes the visitor is that the fertile spots are very fertile, and very beautiful as pictures of farming scenery. So much of the land is not fit for farming that Nature seems to have balanced things by making the good parts very rich. Again, the visitor from inland Canada is struck by the presence of two important industries, coal mining and sea fishing.

This produces a state of affairs which is, in many respects, unique. Here there is a naturally good timber country, and right along side of it, and mixed in with it, is territory which requires timber. The mines require pit props, hundreds of miles of them, the fisheries require barrels and kegs and fishing craft, while the farms and orchards need boxes and crates and baskets and barrels. This is in addition to the houses, barns,

sheds, fences, and other structures which all need. This very fortunate circumstance has been, in a way, a bad thing for forest industries. The fact that the market is so near at hand, and will use up so much inferior material, has led the people to underestimate the value of the forest. Frequently the man who makes barrels, or kegs, or crates, gets the material off his own property, or from that of his neighbors, and the amount used never gets into the statistics of the province. The Bulletin of the Forestry Branch of the Department of the Interior on the Wood Using Industries of the Maritime Provinces has gathered statistics from six hundred factories and shops in the three provinces of New Brunswick, Nova Scotia and Prince Edward Island, but even this large number, more complete than ever before, one feels sure does not take in all the men, who, for a part of the year, make staves, or hoops, or some other product used locally. This fact has kept, and still keeps, the people of the province generally from realizing the full value of the forest industries, and what it will mean when these industries disappear for want of material. Then the fact that much inferior and small timber can be utilized has led to much closer cutting of the forests than where only lumber of the standard sizes was made.

The apple growers are just beginning to realize that, whereas, ten years ago they paid only for the labor in a barrel or box, they now have to pay as much more for the material; so that the price has about doubled. The same state of affairs exists in regard to fish barrels and mine timbers.



The fact that the fertile lands occur in pockets, frequently in long, narrow valleys, has brought about a condition of things which exists scarcely elsewhere in Canada. Many of the farms have a narrow frontage on the river in the valley, and extend back over the edge of the valley into the hills beyond. Often these farms are four or five miles long. The fertile part is in the valley; the land in the hills is absolute forest land. Very few farmers are content with the income they derive from their fertile acres in the valley. They have been accustomed to supplement this by the

sales of timber from the hills. This was a particularly satisfactory arrangement to them because the work in the woods came in the winter, when there was little work to do on their farms. In some respects it is a good way of handling timber. The difficulty is that the cutting has been carried on without regard to the principles of reproduction, and now that the farmers are getting toward the end of their timber they realize that they must either change their methods or suffer a serious decrease in income. This is all the more exasperating as they realize that they could secure



View of avenue of Manitoba Maples at Dominion Experimental Farm at Indian Head, Saskatchewan. When these trees were planted scarcely anybody believed that trees could be got to grow between Manitoba and the Rocky Mountains. Now over twenty million trees sent out from the Dominion Forestry Branch Nursery at Indian Head are growing about prairie homesteads.

prices for their timber in the future such as they never dreamed of in the past. Nor is this merely an incident in the general situation. When it is realized that more than half the timber land of Nova Scotia is held in these small blocks, running from two hundred to one thousand acres, it will be seen that when this problem is settled more than half the difficulties are met. In other provinces the pro-

vincial government can improve matters by new regulations and by better administration, but in Nova Scotia, where so much of the timber land is owned in fee simple, a great deal of the work must be done by educating the owners. There can be no doubt, too, that a great many of these men are anxious to know what to do, so that a forester who could go among them and give the information would



have his hands full for several years to come. This will probably be the first work of the provincial forester when he is appointed.

Nothing has yet been said of the opportunity for the highest utilization of some kinds of timber in wooden ship building, which business has revived since the crash that followed the introduction of iron ships, and which seems destined to continue indefinitely in the construction of certain classes of vessels. Nor has anything been said of the particularly favorable position in which Nova Scotia stands in regard to export trade, both to Europe and to South America. Nova Scotia is a small province. Her timber has been heavily cut into, and still more heavily burned over, but much of the land is suited to the growing of timber, much of it is covered with woods of some kind, and timber reproduces readily and grows rapidly in the province. She has a number of native industries dependent upon wood, and she has great opportunities for export. All of which shows that action now will result in great advantage to the province in the near future and for all time to come. These are some of the reasons that induced the Nova Scotia Government and the lumber interests to invite the Canadian Forestry Association to hold a convention in the province. There are other aspects of this most interesting situation, and these will be discussed in future issues.

### Canadians Honored.

Mr. J. B. White, manager of the woods department and sawmills of the Riordon Pulp and Paper Company, has been appointed a member of the Forestry Committee of the American National Wholesale Lumber Dealers' Association for the ensuing year. The other Canadian member appointed to this committee is Mr. John S. Gillies, of the Gillies Lumber Company, of Braeside, Ont.

### TAMARACK IN CAPE BRETON, NOVA SCOTIA.

When traveling in eastern Nova Scotia this summer, the Secretary heard a great deal of the pit prop question, which will be more fully gone into in the future. One of the members of the Canadian Forestry Association there, who is purchasing agent for one of the large mines, has given this matter much attention. This is just another proof of how this question of forest conservation affects every industry in Canada, and directly or indirectly every citizen. This gentleman stated that the mines of Cape Breton use annually about fourteen million feet of mine timber, and in the whole of Nova Scotia about twenty-two million feet are used for mining annually. The pit props used in Cape Breton mines every year would, if placed from end to end, reach 2,300 miles, or nearly from Sydney to Ireland. This gentleman had made observations regarding the recovery of the tamarack after the attack by the larch sawfly, which, in 1885-6, killed all the mature tamarack from Sydney to Winnipeg. In this connection he said:—

'In passing over eastern Nova Scotia and Cape Breton, one cannot fail to notice the great growth of tamarack (so-called juniper) coming up all over the country. It is to be wondered if the people appreciate the valuable asset they have in this wood. Originally tamarack was well distributed, and was largely used for ship and boat building, also for frames of buildings, fence posts, etc., its lasting qualities adding greatly to its value. In 1885 a pest of caterpillars (the larch sawfly) passed over the country, and they seemed to have a particular fondness for the tamarack, for several years after scarcely a young tree could be found alive, but within the past ten or fourteen years it appears to have recovered, and now a strong growth is coming up. Owing to the thickness of this growth, the trees, to be of any value in the near future, should be thinned out. At least four out of every five of the young trees should be cut down to give the fifth a chance to grow. For railway ties, mine props and ties, and many of the uses to which our native woods are put, the tamarack is the most valuable. It would, therefore, appear to be the opportunity and duty of people having the same on their lands to encourage its rapid growth in every way possible.'

### A NATIONAL WORK.

A western man writes: 'I think your idea of a national organization is a splendid method of awakening public interest in forest protection.'



## Recent Publications

*Care of the Woodlot*, by B. R. Morton, B.Sc.F. This is Circular No. 10 of the Forestry Branch, Department of the Interior. It may be had free by those interested upon application to the Director of Forestry, Dept. of the Interior, Ottawa. This circular of sixteen pages is intended to be of a popular character, so that the owner of a woodlot may gain the necessary information upon which to proceed to improve the same. Information from the Department is to the effect that it has also proved popular, requests for it having been very

wind. Next it takes up improvement cutting and thinning. The fullest section is that on Reproduction, which deals with natural seeding, artificial seeding, disadvantages of seeding, planting, and sprout or coppice method, and adds a table of quantities and distances to show how much seed and how many plants are required per acre when artificial reproduction is followed. Those of our members who are contemplating improving their woodlots, or who would like to place something of a brief and popular character in the hands of those who



**The Bad Results of Grazing.**

In the foreground of the picture a wire fence has been erected. The one side has been grazed clean, while on the other ungrazed side the good reproduction to be noted further back has sprung up.—From *Care of the Woodlot*.

numerous. It is the first publication of the kind issued by the Dominion Forestry Branch dealing with the care of wood lots in eastern Canada, all the similar publications previously issued by the branch having dealt with western and prairie conditions. The constantly increasing demand from eastern Canada, particularly the Maritime Provinces, rendered necessary the issue of a publication dealing with conditions where the rainfall is much greater than in the prairies. The writer is Mr. B. R. Morton, who is the officer in the Forestry Branch in charge of farm forestry and woodlots in eastern Canada. The circular deals, first, with Protection from grazing, fires and

should be improving their woodlots, should send for copies of this circular.

The Province of Ontario has issued a pamphlet by Mr. E. J. Zavitz, Provincial Forester, Parliament Buildings, Toronto, which has already gone through two editions, and this is available for citizens of Ontario, but not for the other provinces.

*Wood Using Industries of the Maritime Provinces*, by R. G. Lewis, B.Sc.F., assisted by W. Guy H. Boyce.

It is safe to say that the wood using industries of a wood producing country like Canada are always underestimated. The raw material is largely produced locally, and keeps up local industries, which are not



regarded at their true worth until they have disappeared from lack of material. The Dominion Forestry Branch is doing a national service in bringing the different parts of the country under review in this way. The above is Bulletin No. 44 of the Forestry Branch of the Department of the Interior, and it may be had free upon application to the Director of Forestry, Ottawa. It has been compiled from reports received from over six hundred manufacturers in the Maritime Provinces, which statement itself shows the importance of the industry. Since it is a study of conditions rather than a census, its figures are likely to be under, rather than over, the mark. It shows that, aside from the export trade, at least two hundred million feet of timber are annually required to supply the wood using industries of New Brunswick, Nova Scotia and Prince Edward Island. The value of this material is over \$3,684,000. Twenty-eight different kinds of wood are used. The industries are divided into the following: Woodpulp, building construction, cooperage, boxes, cars, boats, furniture, coffins, foundry boxes, vehicles, machinery parts, patterns, agricultural implements, handles and fruit baskets. The Bulletin forms a pamphlet of one hundred pages, in which the subject is treated in all its relations. Those who desire to keep in touch with this industry in these provinces should send for a copy.

*First Annual Report of the Botanical Office of the Province of British Columbia, 1913*, by J. Davidson, F.L.S., F.B.S.E., Provincial Botanist, printed by the King's Printer, Victoria, B.C. This is a handsome report of thirty pages on heavy paper, illustrated by many inserted maps and engravings. The object of the Botanical Office is to form a provincial herbarium of the native flora, to collect information and literature relating to the same, to make records of native species, etc. The report shows that this work has been entered upon energetically, and that the reproach that the best collections of British Columbia flora are to be found in Ottawa and Washington will soon be removed.

#### DROUGHT TESTS FOREST FIRE PROTECTION PLANS.

The efficiency and resources of all forest-protective organizations in Canada have been put to a severe test this year by the prolonged drought which prevailed throughout the greater portion of Canada during the early part of August. It seems probable that 1914 will be recorded as the worst fire year since 1910. The situation in southern British Columbia has been very serious, and great areas have been burned over in Alberta, on the east slope of the Rocky Mountains. Northern Ontario has suffered severely.

The railways are no longer the chief source of forest fires, and the necessity for a stricter control of the setting of fires by settlers for clearing land is becoming increasingly apparent. Also, in many sections, especially on cut-over lands, where most of the fires originate, the establishment of a more adequate patrol system is essential to protect young growth and prevent the spread of fires into old timber. The extension of the merit system in the appointment of fire rangers in the services of both the Dominion and Provincial Governments is necessary if the best results in fire protection are to be secured.—Clyde Leavitt, in *Conservation*.

#### NEW FORESTRY JOURNAL.

*The Biltmorean* is the name of a quarterly publication issued in Cadillac, Michigan, to take the place of *The Biltmore Doings*, which ceased when Dr. Schenck gave up the work of the Biltmore Forest School. In the opening editorial it is stated that *The Biltmorean* is the result of a desire on the part of many of the graduates of the Biltmore Forest School for a school paper which should serve as a medium of correspondence between all Biltmoreans, as a tie to bind the friendships formed in the school-days, as a fitting record of the achievements of graduates and their opinions and methods, and as the upholder of the good name of the Biltmore Forest School among the host of other institutions dedicated to Forestry, and the allied pursuits.

#### FIRE PREVENTION NOTICES.

The Crown Lands Department of Nova Scotia has, for the most part, discarded the old method of printing extracts from the laws against fire as fire notices, and has adopted the plan of printing short, pithy sentences to remind the camper of the immediate need. Here are some of the posters:—

#### FOREST FIRES CAN BE PREVENTED.

Use your influence against  
CARELESSNESS,

And Make 'Caution' the By-Word When  
in the Woods.

*Preach Forest Protection and Practice it  
Too.*

Pipes, Cigars, and Cigarettes are

DANGEROUS.

A Fire from Your Pipe Means That You  
Alone Are

RESPONSIBLE.

*Be Careful.*



# Killing of Larch in Nelson Forest District.

Mr. H. R. MacMillan, Chief Forester of British Columbia.

In July, 1913, clumps of 'red-tops' were noticed amongst the mixed stands of western larch on the mountain slopes above the Arrow Lakes. The trees affected were comparatively few in number, and were chiefly at an elevation of about 3,500 feet. It was not found convenient to make a study of the causes of the damage during the season, the attention of Mr. Swaine being devoted to the more important outbreaks of insects on other species.

The affection, whatever it may be, has spread with extreme rapidity, and may be expected to be reported soon from other localities.

The larch in this district is not a very important tree. In the forest it appears as tall, clean timber. Its product does not justify its appearance. The butt is heavy, and trees which are to be floated or driven must be long butted four to eight feet. The butt logs are usually very shaky, and when dry practically fall to



Birch Planted Too Far Apart.

This picture shows an undesirable, grassy condition, the result of planting too far apart a tree which naturally produces little shade.—From *Care of the Woodlot*.

In May, 1914, a trip through the same country showed an enormous increase in the number of 'red-tops.' Apparently the greater part of the larch on both shores of the Arrow Lakes, from water level to the upper limits of the species, is affected so seriously as to cause the destruction of the foliage. The affected trees, in many cases, form a third or more of the forest stand. The burns of several years ago have, in many places, reforested, one-quarter to one-half of the young stand being larch. The young larch, as well as the old, appears to suffer.

pieces, and, therefore, the trees are usually long butted, even where the logs are not to be floated to the mill. The lumber is heavy and pays a higher freight charge than other interior timbers. As is true with other western timbers, the defects and characteristics vary in different districts. There are places where it is not necessary to long butt western larch. It is not, however, a favorite tree with the manufacturer or timber owner.

Should the killing of the larch result in its displacement in the forest by either bull pine or western white pine, its two



most valuable competitors, or even by Douglas fir, which, in this particular district, is only a medium grade timber, the forest will be improved. The great danger from this infestation is not so much the loss of the larch, but the increased fire hazard. Over contiguous areas of a hundred or more square miles the larch forms ten to thirty per cent. of the forest. Should this timber be killed, as appears likely, the danger of destructive fire will be greatly increased, and it will be practically impossible to check a fire which escapes into a forest containing such a large proportion of dead timber.

The appearance of large areas affected by insects, as this one appears to be, suggests that the great fires of the past in the western forests have, perhaps, been fed to the maximum destructive pitch by 'bug-killed' timber.

No remedy for a large scale insect attack has yet appeared possible. Perhaps parasites may be introduced which will hold in check the insects most destructive on yellow pine, white pine and larch, the three western species most affected. If such parasites are not found it is likely that we may look for some seriously destructive beetle attacks. The insects are present, and it only requires a combination of conducive natural conditions to prepare a wholesale devastation of some districts. Their spread is probably encouraged by the absence of birds in British Columbia and the increased number of favorable breeding grounds, which are being provided in the weakened trees of clearing and logging operations.

The study of destructive forest insects by the Entomological Division is welcomed in British Columbia.

#### LOWER OTTAWA FOREST PROTECTION.

The Lower Ottawa Forest Protective Association, which was organized last spring, has had a very active season, due to the dry periods of May, July and August. The association employs 49 permanent rangers, four inspectors, and as many temporary labourers as may be required for the control of individual fires. During the dry spell in May more than 500 extra fire fighters were on duty at one time in the employ of the association. Since the organization of the association the area protected by it has been increased by 2,000 square miles, through the accession of new members. The total area now guarded is 11,812 square miles, or upwards of 7,500,000 acres. The association has recently secured convictions against 40 settlers in the Ste. Agathe, Mont Laurier, and Maniwaki districts for setting fires without permits, and it is expected that these convictions will result in greater

care with such fires in the future. In all probability the excellent results secured by the Lower Ottawa and St. Maurice associations will lead to the formation of similar associations in other sections of the country.—Clyde Leavitt in *Conservation*.

#### SALT WATER PRESERVES TIMBERS.

*Professor John Macoun's Observations Confirmed.*

In replacing a railroad trestle recently burned along the north shore of Great Salt Lake, engineers have just found that the piles are still perfectly sound, after 43 years of service. Looking for the cause, since these were only of local pine and fir, they found the timbers were impregnated throughout with salt from the lake.

The first transcontinental telegraph line, built before the railroad, extended west from Salt Lake City through the prosperous mining camps of Eureka, Austin and Virginia City. When the railroad was built the telegraph line was transferred to follow its right of way, and the old poles sawed off at the ground. An engineer who recently examined the butts left in the ground in the salt desert near Fish Springs found that, although fifty years had passed since the poles were cut off, the old butts were perfectly sound.

Telephone and electric companies in the Salt Lake Valley have used the local salt for preserving poles. When set up about 75 pounds of salt is placed around the pole on the ground. This method cannot be used, however, when the pole is on or near a lawn, or in any place where vegetation is desired.

It is pointed out that the reason why the waters of Salt Lake act as a strong preservative, as distinguished from ocean waters, is because the lake water is so much saltier, being practically a saturate solution. Preservation with salt is of no use in ocean piling against the attack of teredos and other marine borers.

Experts in the forest service who have been investigating the preservative treatment of timber offer the suggestion that ties and poles which have been immersed for some time in the waters of the lake ought to be impervious to decay if the salt is not leached out by the action of the elements. It has been suggested that this can be guarded against, for example, by painting the butt of the pole with a coat of creosote, which will keep out the moisture and keep in the salt.

In this connection it is interesting to note that for many years Prof. John Macoun, of the Canadian Geological Survey, has advocated this method of preserving timber. In the Summary Report of the Geological Survey for 1908, page



187, Prof. Macoun gave facts on this matter. At the Canadian Forestry Association Convention in Ottawa, in February, 1912, Prof. Macoun, speaking on the preservation of railway ties, said that he had been on both Atlantic and Pacific coasts for many years, and that he had never seen a tree subject to the tides and well soaked with brine that ever produced a fungus, in other words, that ever rotted. Yet, go back into the bush a short distance and you would find logs of the same kind which had begun to rot as soon as they were felled.

To this Mr. E. A. Sterling, then forester for the Pennsylvania Railroad, said: 'This is a very interesting bit of information, and I am glad to have it as confirming our own idea. I have a lot of ties in pickle in Great Sale Lake. They were put there because of the high percentage of salt carried by the water.'

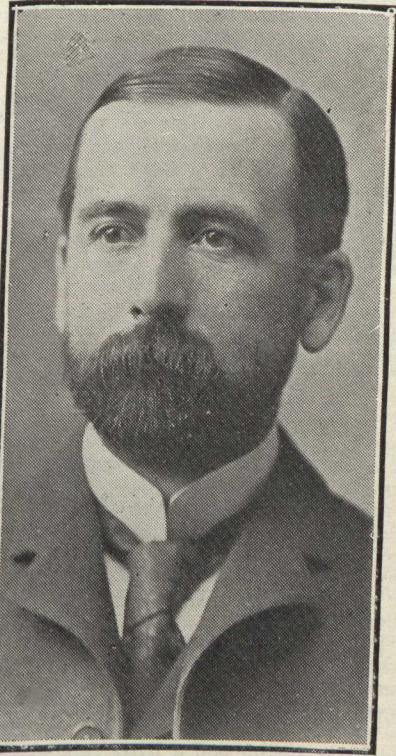
#### MAPLE DAY.

The co-operative fire prevention associations are not the only bodies that find it advisable to distribute literature and articles that will attract attention to the cause in hand. Makers of maple sugar in Quebec, this year, made July 1 'maple day,' and sent out to the largest hotels, all the railway dining cars and steamships little boxes containing a piece of pure maple sugar, to be served to every guest that day. Accompanying this, the Government of Quebec Province sent out a little booklet explaining the extent of the maple sugar industry in that province, and the efforts that have been made to improve the quality of the product. The object was to draw the attention of the public to this product, and to promote its use. The plan attracted widespread attention, and was very favorably commented on. In sympathy with this, the Canadian Pacific Railway issued a specially designed menu card on this day in all its hotels, steamships and dining cars, bearing a picture of the maple leaf, in which was included for each meal a number of dishes in which maple syrup had been incorporated. In this campaign over 28,000 pamphlets and samples were used.

As was pointed out some time ago in these pages, the new clause added to the Adulteration Act of Canada this spring, dealing with maple sugar and maple syrup, is very stringent. Henceforth it will be possible to get pure maple products in Canada, and this fact, it is believed, will stimulate the trade in maple products and exert a wholesome effect on the movement to prevent the cutting down of maple groves on soils unfit for ordinary agriculture. The new section of the Act is as follows:—

'No person shall manufacture for sale, keep for sale, or offer or expose for sale, as maple sugar any sugar which is not pure maple sugar, nor as maple syrup any syrup which is not pure maple syrup, and any maple sugar or maple syrup which is not up to the standard prescribed by the sixth schedule to this Act shall be deemed to be adulterated within the meaning of this Act.

'The word "Maple" shall not be used either alone or in combination with any other word or words on the label or other mark on a package containing any article of food or any article of food itself which is or which resembles maple sugar or maple syrup, and any article of food labelled or marked in violation of this subsection shall be deemed to be adulterated within the meaning of this Act.'



HON. GEO. H. PERLEY,

One of Canada's Leading Lumbermen, who recently became a director of the Canadian Forestry Association.

The forests of Corsica, the little island upon which Napoleon was born, are managed by the French government. They produce lumber, firewood, and turpentine, and all parts of the tree are far more closely utilized than in America.



### PRIVATE CITIZENS AND FORESTRY.

A member of the Canadian Forestry Association, who is the owner of a flour mill and water power in Central Ontario, writes:—

'I have been interested in the cause of forestry since I was a boy in my teens. I am a lover of trees and woods. I own here some four hundred acres, about half of it covered with woods. I have controlled this for about thirty years. I am generally considered pretty liberal in money matters for my limited means, but I must plead guilty to being a miser when it comes to cutting down a tree. I never cut a tree down except I have to, or where they require thinning, have reached maturity, or are badly shaped.

'I can look back to the time when I was a boy and see acres of mere saplings that are now of merchantable size. When I reach the allotted three score and ten years—if I do—I will have quite a valuable property in trees. The only thing I don't like about it is that after I am through with it, whoever follows me may see in each tree so much cash, and into cash they will go. However, I suppose when I reach the Happy Hunting Grounds, that forestry matters will not trouble me.

'My woods, of course, were cut over before I got them, and the largest and best trees taken out. I have done no planting except along fences, but I am protecting and helping what I have. It is really a shame to see bare hillsides that were once covered with valuable timber, cleared of all timber and undergrowth, so that now the largest plant on them is a mullein. They will now grow nothing of any use, not even pasture. I can understand good farming land being cleared to get the land to raise grain, but why steep hillsides and sand hills were cleared of every vestige of tree life I can never understand. Had they taken the merchantable trees and left the saplings there would have been some excuse.

'I can see a great difference in the stream that drives my mill. We used to waste as much water as we now have altogether. In summer and early winter the stream is low. Warm days in winter and early spring and a little rain gives us larger floods than we used to have. Years ago a rain would slowly raise the water. It would be higher than usual for, perhaps, three or four days, but not any flood about it. Now, however, it means a flood in a few hours and back to normal flow. The floods cut into the banks and carry away hundreds of tons of good soil every year on this small stream. This is only an index of what is taking place all over the country.

'I hope the governments will make

much more stringent laws for forest protection and forest reproduction. Private individuals can do a lot in saving our woods and forests, but the great responsibility now rests with the governments and such organizations as the Canadian Forestry Association.'

### REFORM FOR THE OUTSIDE SERVICE.

Professor Adam Shortt, commissioner of the Civil Service Commission of Canada, has just returned from the United Kingdom. He has been making an extensive investigation into the workings of the inside and outside branches of the Civil Service of Britain, and has gathered much valuable information, which will be embodied in a report which he is preparing.

Referring to the question of appointments, he stated to a newspaper interviewer that in the outside service the influence of politicians had been completely eliminated in the appointment of postmasters, customs and inland revenue officials. In the staffs of these departments there was no interference on the part of members of parliament or local politicians. All appointments were settled by the various heads of departments in London, and the district inspector. The Civil Service Commission system worked very well in all the centres visited. An extensive system of promotion exists in the postal and inland revenue branches, whereby officials from any part of the country are eligible for appointments in any other part of the country. 'This shows the complete practicability of the efficient working of the service without political interference,' said the Commissioner.—*Ottawa Civilian.*

### NATIONAL CONSERVATION CONGRESS REPORTS.

Two books have been published dealing with the proceedings of the Fifth National Conservation Congress, held in Washington, D.C., last November. One of them treats of Water Power subjects exclusively, and is an important contribution to constructive literature in this subject. The other book contains the Forestry reports and addresses, which were conceded to be the most valuable ever presented at a similar meeting in this country. The books may be had for one dollar each, through N. C. McLoud, Treasurer and Recording Secretary of the Congress, 1201 Sweetland Building, Cleveland, Ohio.

No other organic substance occurs in such abundance as wood, and few if any are more generally useful. About 150,000,000 tons of wood are still wasted annually in the United States. — *Arthur D. Little, Chemical Engineer.*



# With the Forest Engineers.

## WORK IN SASKATCHEWAN.

Mr. E. H. Roberts, Forest Assistant, Dominion Forestry Branch, Prince Albert, Saskatchewan, writes:—

'The Dominion Forestry Branch have three reconnaissance parties in the field here examining lands and locating suitable areas for inclusion in forest reserves. Another party is examining boundaries on the already established reserves, with a view of making additions where the land is unsuitable for agriculture, so as to straighten the existing lines and facilitate the fire-guarding, as well as making the blocks more compact and easier handled. On the smaller prairie reserves, which are mostly without any tree growth at present, grazing permits have been granted for the running of stock, and many of the settlers surrounding these areas are gladly taking advantage of the privilege. On the older established reserves, the improvement work is going ahead rapidly. The erection of ranger houses, steel look-out towers, and the construction of telephone lines is under way. Fireguarding the boundaries and the plowing of the same is keeping some of the rangers busy. The railroad fire patrol has been doing good work thus far, and most of the roads travelling the bush country have their right-of-way well cleaned up, things being in better condition than at any previous season. The fire ranger service in the north country is doing well. Another new patrol boat was installed this spring on the lower Beaver River and in the vicinity of Isle a la Crosse. The forest nursery on the Pines Reserve is in fine shape, and the beds that were planted last year are making a remarkable growth this season.

'The newly located gold-fields at Beaver Lake, north of Cumberland House, are attracting considerable attention, and the influx of prospectors is keeping the fire rangers in that district very busy.'

## NOTES FROM KAMLOOPS.

Mr. P. Z. Caverhill, District Forester of the British Columbia Forest Service at Kamloops, writes:—

'This district embraces that portion of British Columbia extending north from the Dominion Ry. Belt to the head waters of the Clearwater, North Thompson, Adams and the Columbia Rivers.

'In taking charge, I found that the district was wholly lacking in transportation facilities. In fact, even the rudiments of

trails usually made by Indian hunters were missing, no doubt owing to the semi-coast type of the timber and the difficulty of getting through owing to the amount of down timber. Improvements were therefore our first consideration. One hundred and twenty-two miles of the most needed trails were constructed, and sixty miles of telephone, this being only a start.

'A start was also made in the disposal of brush after logging operations. The debris, after a couple of operations, was burned broadcast last spring. On the permits the brush was piled, but has not yet been burned. An interesting sequence of this operation is the keen interest which the settlers are taking in brush disposal. They are now requiring almost all operators on their land to pile the brush. This is going to be a great help in the future fire situation.'

## HARVARD COURSE IN LUMBERING.

At the request of prominent lumber interests, a two-years' course in the business of lumbering is to be given next year by the Harvard Graduate School of Business Administration, in co-operation with the Harvard Forestry School.

## LAVAL FOREST SCHOOL.

The Laval Forest School reopened for the session of 1914-15 on Tuesday, Sept. 15. The school resumes its sessions in the new building especially erected for it in conjunction with the School of Surveying and the Law School.

A couple of changes have occurred in the faculty. Prof. Paradis, C.E., professor of mathematics and topographical surveying, has resigned, and his courses are being given by Prof. Mercil, professor of mathematics. Mr. Maheu, F.E., a graduate of the school, has been appointed instructor in entomology and mycology, and will also act as secretary of the Director.

There are now thirty-one students in attendance in the three undergraduate classes.

Of the twenty-seven graduates, all are employed. Eighteen of them are in the employ of the Provincial Government, and nine are with other governments, or in private employment.

It is proposed to have a committee of three members of the Quebec Limitholders' Association as an advisory committee to consult with and advise the administration of the school, with a view to bringing the



course into the greatest possible conformity with actual operations and conditions, and so make the graduates increasingly valuable to the lumbering industry. The members of this advisory committee would represent, respectively, (1) the eastern, (2) the central, and (3) the western districts of the province.

#### QUEBEC NOTES.

Bulletin No. 2 of the Forest Service of the Province of Quebec will be issued shortly. It will consist of a general description of the forests of the province. Bulletin No. 1, the list of sawmills and other wood-using industries, will be revised and re-issued, the industries being classified by industries as well as places.

A co-operative arrangement has been entered into by the Dominion and Quebec (Provincial) Governments for the joint collection of statistics in regard to wood-using industries.

#### CONCRETE TIES INFERIOR TO WOOD.

Mr. L. M. Ellis, Assistant Superintendent of Forestry for the Canadian Pacific Railway, has been securing data regarding the use of concrete ties as compared with wood. The Chicago and Alton Railroad has found concrete ties distinctly inferior, as given in a letter to Mr. Ellis. The Chief Engineer says:—

'There were 60 concrete ties placed in the track in October, 1903. They were placed in the track and ballasted with stone, where they had good drainage and were kept in good surface. In 1906 there were 12 concrete ties changed out; in 1911, 32; in 1912, 10, and 1913, 6. These ties were changed out on account of crushing and breaking down under the rail and unsafe to remain in the track. Ties were constructed of cement, iron girder and oak block. There were two blocks of concrete 7" thick, 9" wide and 3' long. There was an iron girder that ran through the blocks that was 2" thick and 2" wide; there was an oak block 3" thick and 10" wide and 24" long, set on top of the concrete tie to use for cushion of rail and to spike rail. There was a wooden plug in the concrete to hold the spike to place.

'These ties weighed about 450 lbs., and when track was surfaced the ballast had to be dug out from between the ties. If this was not done the rail would lift up and ties would stay in ballast on account of their weight. When track heaved slightly in the winter it caused track to become slightly uneven. The ties under the heavy part of the track would crush and break, and this left the track unsafe. We were compelled to place oak track

ties between the concrete ties to hold track to gauge. After the six years' test I have concluded that concrete ties of this make are a failure.'

#### C. S. F. E. DISTRICT EXECUTIVE COMMITTEES.

The "District Executives" provided for at the last (1914) annual meeting of the Canadian Society of Forest Engineers have been elected as follows:—

Ontario.—Clyde Leavitt, chairman; T. W. Dwight, J. H. White.

Quebec and Maritime Provinces.—G. C. Piché, chairman; A. Bedard, R. B. Miller.

Prairie Provinces.—N. M. Ross, chairman; L. M. Ellis, W. Alden.

British Columbia.—H. R. MacMillan, chairman; D. R. Cameron, W. J. VanDusen.

#### NEWS OF FOREST WORK.

Survey parties are beginning to come in from their season's work, and other field work for the year is nearing completion. *The Canadian Forestry Journal* desires to get from leaders of parties and other foresters notes of their work, and items of interest to foresters generally. Address, James Lawler, Editor, *Canadian Forestry Journal*, Journal Building, Ottawa.

#### CAMPBELL-RUSSELL.

Mr. Roy L. Campbell, B.A., B.Sc.F. (Toronto, 1914), son of Mr. and Mrs. A. C. Campbell, of Ottawa, was, on Sept. 9, married to Miss Helen Russell, B.A., daughter of Mr. and Mrs. Thomas Russell, of St. Mary's, Ont. The wedding was solemnized by Rev. R. Fowle, of Collingwood, uncle of the bride. Miss Jessie H. Russell was bridesmaid, and Mr. Gordon Bole, B.A., of Winnipeg, groomsmen. Mr. and Mrs. Campbell have taken up their residence in Montreal, where Mr. Campbell is the editor of *The Pulp and Paper Magazine*.

#### OUR FEATHERED HELPERS.

The birds not only make our woods, forests and parks more beautiful and enjoyable, but they are of the greatest practical value from an economic viewpoint. They are the greatest foes of, and protection against, the insects, which annually destroy or injure crops and trees to the value of hundreds of millions.—Rochester Times.



# Canadian Forestry Association

THE Canadian Forestry Association is an independent organization of patriotic citizens, which has for its object the highest development of the soil and resources of Canada by urging governments, municipalities and owners generally to devote each acre to that for which it is best suited, and particularly to keep under forest those soils fitted only to grow trees.

The Membership Fee is one dollar per year. Members receive free of any additional charge the Annual Report and *Canadian Forestry Journal*.

Application for membership may be made as below:—

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Candidates for advanced standing may take examinations in any subject but are required in addition to present evidence of a specified amount of work done in the field or laboratory.

The school year in 1914 begins July 1 and is conducted at the school camp at MILFORD, Pennsylvania.

*For further information address*

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