

# Canadian Forestry Journal

VOL. IX.

OTTAWA, CANADA, MAY 1913.

No. 5

## CANADIAN FORESTRY JOURNAL,

Published monthly by the

CANADIAN FORESTRY ASSOCIATION,

Canadian Building,  
Ottawa, Canada.

Devoted to the cause of forest conservation.

Subscription \$1 per year.

Advertising Rates on Application.

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## WINNIPEG CONVENTION.

The fifteenth convention of the Canadian Forestry Association for the presentation of addresses and papers and the discussion of forestry matters will be held in Winnipeg, July 7, 8 and 9, 1913. Problems of the greatest importance to the whole of Canada will be discussed. While special attention will be given to prairie conditions the program will bear testimony to the national character of the work in that the problems now pressing for solution in both East and West will be carefully considered. Assurances have been received from the Dominion and nearly all the Provinces that they will be officially represented, and a number of the men in the United States best qualified to give assistance in regard to our conditions have already signified their attention of coming to Winnipeg.

While the exact details of the program cannot be outlined for some little time it is expected that the proceedings will be opened by His Honor the Lieutenant Governor on Monday evening, July 7, at an official reception in which the delegates will be welcomed by the representatives of the Government of Manitoba, City of Winnipeg etc. The following two days will be devoted to the work of the Convention along with such entertainment features as shall be arranged.

The public sessions will be held in one of the halls of the Winnipeg Industrial Bureau, which is well adapted for handling conventions of all kinds, being centrally located and having the necessary offices, committee

rooms, etc. In this connection it is expected there will be some exhibits of interest to all interested in trees, whether as lumbermen or as the growers of shelter belts and wood lots.

This is the first time the Canadian Forestry Association has ever held its convention in Winnipeg, which will result in there being brought up for the first time a number of problems which relate to the great central part of Canada. These will include that of the protection and perpetuation of the great forests of western Ontario, and northern Manitoba, Saskatchewan and Alberta; the best methods of handling the forest reserves of Manitoba and their possibilities in future timber production and the supply of fence posts, poles and cordwood for the settlers; the necessary thing to do in regard to getting under timber the sand lands which will never produce any other profitable crop but trees; the rate of growth in the central parts of Canada as a basis for deciding the possibility of the economical growing of trees by farmers for fuel and building purposes, and also the possibility of re-foresting reserves and cut over lands; and the practicability of using hedges and living fences. Along with all these will go the discussion of the value of forests on the uplands as wind breaks, sources of stream supply and as cover for insectivorous birds.

To discuss these questions men who have made these subjects a life study in all the eastern provinces, (but particularly in Ontario and Quebec) and in British Columbia have promised to attend. As representing central Canada there will be the officers of the Dominion Forestry Branch and the representatives of the three prairie provinces. To link this up with the wider knowledge obtained under similar conditions there has been secured the attendance of federal and state forest officers in that part of the United States contiguous to central Canada. Through the whole Convention the aim will be to make all papers and discussions serve the most useful pur-

pose, and to this end they will be as practical as possible. Representative lumbermen, agriculturists, railway officials, business men and bankers will show how vitally interested the whole community is in the handling of our forest resources in a rational way which will permit their best use not only for the present but for all time to come. The insect menace has in the last three years been brought to the attention of Canadians, and gentlemen will be present who will give the very latest information on this danger and what can be done to avert it.

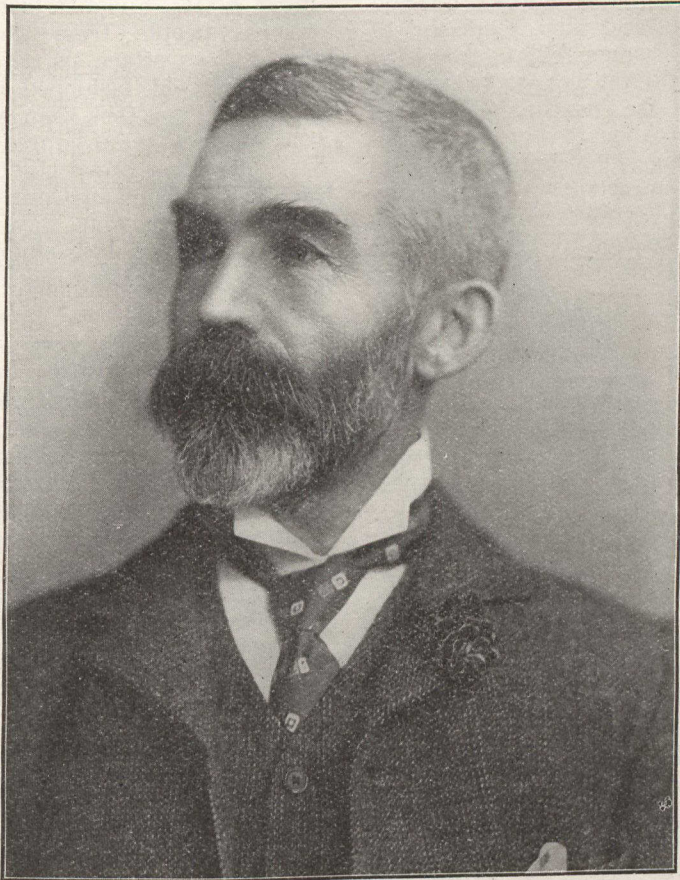
From present indications it appears that this will be one of the very best conventions ever held under the auspices of the Association. There is a strong local committee which is co-operating with the Directors of the Canadian Forestry Association to make the meeting in every way successful.

#### THE CONVENTION CITY.

Winnipeg is in many respects an ideal convention city. In rapidity of growth and in the handsome character of the city and suburbs it is one of the marvels of the continent. It is seen at its best in summer, and delegates will be able to attend the Winnipeg Exhibition, which opens on the closing day of the Convention, and also to see the early part of the harvest on the far-famed prairies. The Convention tickets being good up till July 24, delegates will have an opportunity to run out through the country. At this season of the year there are always a number of cheap rate excursions to different points, of which advantage may be taken. While the hotels will be occupied by Exhibition visitors during the following week, it is expected that there will be little difficulty in all delegates securing good accommodation at this time. A list of the leading hotels with their rates is given below. The entertainment features of the Convention will likely be of an outdoor character in which all attending may participate.

As the capital of Manitoba and the third largest city in Canada Winnipeg has many important institutions and other attractions. It is the central point of three great trans-continental railway systems with their immense terminals and workshops. Of particular interest to the visitor are the Provincial Parliament Buildings, the University of Manitoba, Manitoba Medical School,

(Concluded on page 78)



## The Late Herbert M. Price.

**Sudden Death of a Director of the Canadian Forestry Association.**

Members of the Canadian Forestry Association and friends of conservation throughout Canada will learn with the keenest regret of the death on April 29 of Mr. Herbert M. Price at his residence Montmorency Falls,

Quebec. Mr. Price was attacked with pneumonia while on a business trip to New York last autumn, and while he appeared to rally for a time this resulted in his death.

He was born at Ross, Hereford-

shire England, on August 21, 1847, and was consequently in his sixty-sixth year. On first coming to Canada as a young man he was connected with banking and was accountant of the Quebec Branch of the Bank of British North America, and later the manager of the Merchants Bank in that city. About twenty-five years ago, severing his connection with banking he went into the pulp and lumber business, at first in connection with the extensive interests of the late Mr. G. B. Hall who had limits and mills in several parts of the Province and he continued to develop this business. Of late years he was identified with a number of important affairs being amongst other things a director of the Quebec Bridge Co., Lake Superior Corporation, Canadian Electric Light Co., Quebec Auditorium, Montmorency Cotton Mills, Co., Riverside Manufacturing Co., Sherbrooke Lumber Co., Quebec Woodpulp Association. He was also on the Senate of Bishop's College, Lennoxville, and was for a time Mayor of Montmorency.

He married in 1877 the daughter of the late G. B. Hall of Montmorency Falls. Mrs. Price died in 1907. There are now left to mourn his loss two daughters, Mrs. J. Hamet Dunn, London, England, and Mrs. Jamieson, Halifax, and one son Mr. A. Bertram Price of Montmorency Falls. Mr. W. C. J. Hall is a brother-in-law and Mrs. Fred. Peters of Quebec is a sister-in-law. One son, Lawrence, a most promising young engineer was killed in a mining accident in 1909, from the shock of which tragedy Mr. Price never fully recovered.

At their home, 'The Cottage,'

Montmorency Falls, Mr. and Mrs. Price entertained many of the most prominent people in Canada and the United States, and also some of the foremost people from the British Isles. 'The Cottage' is noted for its magnificent old fashioned garden in which Mr. Price took keen delight. It was a source of great happiness to him that while Their Royal Highnesses the Duke and Duchess of Connaught and the Princess Patricia were in residence at Quebec last summer they spent many pleasant hours in this famous garden.

Mr. Price was always an enthusiast on the subject of forest conservation and one of the earliest members of the Canadian Forestry Association. He was the President of the Association in 1908 on the occasion of the Convention in the City of Montreal. There were several burning issues in the air at that time of a political nature which were indirectly related to forestry and which some with good reason feared would result in wrangling and ill feeling. The matter looked decidedly serious, but through the firmness and tact of the presiding officer the difficulty was successfully surmounted.

With the passing of Mr. Price another gap is made in the line of the Old Guard of promoters and charter members of the Association. The Canadian Forestry Association and the cause of forest conservation loses one of its most rational and most enthusiastic supporters. To his sorrowing family in their hour of bereavement *The Canadian Forestry Journal* desires to convey its deep and heartfelt sympathy.

# Progress in Forestry.

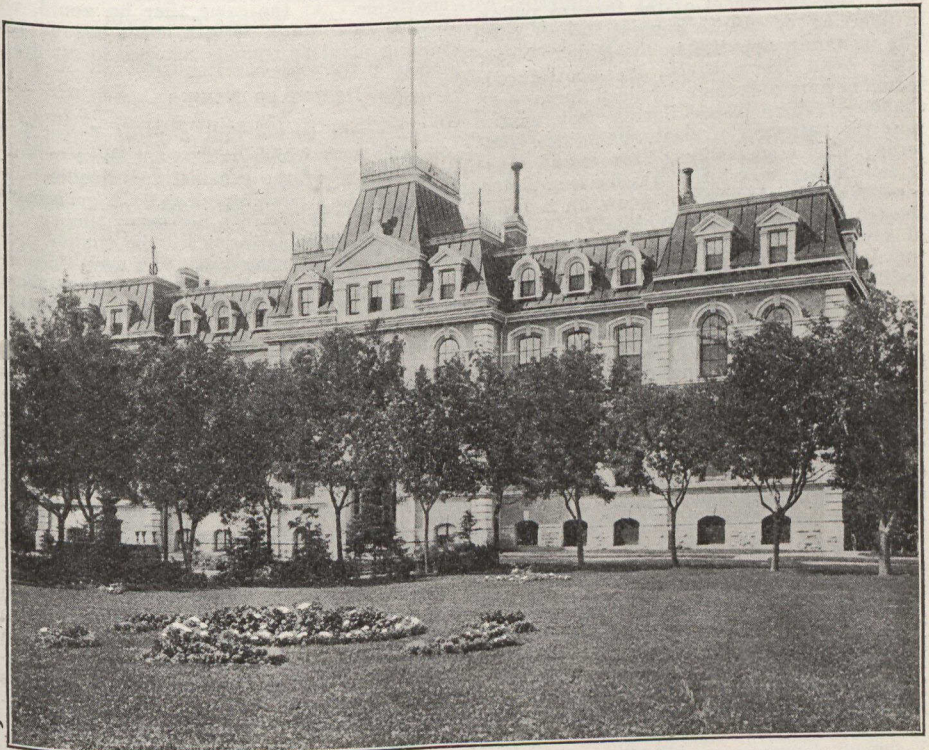
*Synopsis of Paper read by J. R. Dickson, B.Sc.F., Dominion Forestry Branch before the Manitoba Horticultural and Forestry Association.*

In a material sense the support of a nation is its natural resources. It is a trite saying that 'forestry is the parent of industries,' but forestry is such a new thing in Canada that some may still be in doubt as to how large this field is. Forestry is essentially a business proposition, and it is for this reason that it should be undertaken. The chief aim of forest management is to insure the permanency of lumbering and its depending woodworking industries by insuring a perpetual supply of saw logs, and there are a number of auxiliary benefits which would thus be secured. These include regulation of stream flow for domestic use, irrigation, navigation or power pur-

poses; the securing of public revenue; the ameliorating of climatic conditions; the conservation of fish and game; and supplying the people with health-giving playgrounds.

Wood is the corner stone of all modern industrial life. North America is to-day cutting three-quarters of the total lumber production of the world. On this continent the forests are being laid waste by fire and axe three times as fast as nature is renewing them. The market price for all important species has been increasing from 50c to \$1 per thousand feet for the past decade. It now costs about

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Provincial Parliament Buildings, Winnipeg.

# Forests and Snowslides.

Mr. Arthur Lakes, Sr., Ymir, B.C.

When much of a theoretical nature is being written and spoken with reference to the influence of forests on snow and water, it is stimulating to receive the first-hand impressions of a man whose many years of practical experience in mining operations has led him to some definite conclusions on the subject.

Mr. Arthur Lakes, Sr., of Ymir, B.C., writing recently to Mr. H. R. MacMillan, Chief Forester of British Columbia, gives a description of a snowslide in the vicinity of the mine in which he is interested.

Says Mr. Lakes:—

‘I saw yesterday what seemed to me a striking object lesson in the importance of conserving and preserving growing standing timber and the benefit of the forestry policy in averting or checking great forest fires. The mountain opposite to the Wilcox Mine, above Wild Horse Creek, is smooth-faced, indented here and there by deep furrows or shallow ravines which during last winter were the pathways of small snowslides. Yesterday after a succession of severe and nearly continuous snowstorms which accumulated some six or eight feet of snow on a level, the entire face of the mountain for a space of over half a mile and to a height of a thousand feet above the river slid down bodily in one continuous sheet or snowslide, starting at every point simultaneously as though by preconcerted signal, and cracking off from the snow above, leaving a distinct irregular or crenated line of cliff apparently from five to ten feet high along the zone where the slide originated, strongly resembling an irregular brush fence at a distance. The snow scaled off from the underlying older and harder snow like the coat of an onion and plunged down enveloped in white foam and smoke-like mist, into the river.

## BEGAN IN BARE PLACES.

‘The remarkable feature, to me, of this slide was the way in which at its starting point it avoided all growing or standing timber. The slide invariably had its inception and origination point in bare places just at the lower edge of the timber—never from within it although the timber occupies V-shaped depressions well adapted for the accumulation of snow.

‘During the year before last I noted that none of the numerous individual slides headed from within growing timber areas, but invariably from bare places burned off by the forest fires. If the timber covered the mountain as it did before the fires there would be no snowslides on that mountain and no menace to mining houses or plants. As it is it would be hazardous or impossible, in case ore bodies (believed to exist) were discovered, to mine the ore or to erect buildings.

‘This little incident which I doubt not is common enough and which the foresters must often have observed in this country, showed me clearly the protection from snowslides that standing timber affords, especially at their inception and near the summits. No prudent miner would cut off to any extent the timber back of his mining plant on the poor excuse of its being “handy,” thereby destroying his best friend and protection from the attack of his worst enemy, the snowslide. At the same time he would, no doubt, clear off a certain space around his mining plant as security against forest fires.

## DEADLY TO MINING CAMPS.

‘It seems to me that a great forest fire such as those which have swept these mountains, is one of the greatest conceivable misfortunes to a mining camp. It endangers the plant. It destroys necessary timber for future use. It extinguishes the timber protection against snowslides. It even encourages slides, originates them or makes them possible, and seriously affects the water supply.

‘The effect of these snowslides is damaging on the water supply. Not only does it demolish our flumes, as in our own case at the Wilcox, but it carries away uselessly a vast amount of snow that should be stored up for gradual use in the spring season. Both lode miners and placer miners realize this. On the other hand, timber left standing gathers the snow and lets the water out gradually—about the time it is most required in the spring and summer, not in useless torrents swept away rapidly in swollen rivers, but quietly and beneficially. I have read of several placer mines in Northern British Columbia being placed *hors de combat* by the sudden departure of the snows and water borne away in unavailable torrents.

‘To me the sight of the effects of a great forest fire such as that which swept through these mountains is a most pitiable one. The

only redeeming feature of a forest fire from a mining point of view is that it clears away the brush and timber and thus gives greater opportunity for the prospector to search for and follow up exposed veins of mineral. Otherwise the forest fire apparently misses any law of compensation. It is a dead loss in every way, doing no good to anyone and very great harm. The sight, too, of a grand old tree that after perhaps a century has reached its maturity standing a blackened ruin of stump some six or eight feet in diameter—and simply because John Smith forgot to put out his campfire before leaving for parts unknown—is a sorry sight indeed.

I noticed last spring that the mountain opposite us was gradually becoming clothed with a low brush of young trees. But how many years will it take to restore that mountain-side to its former forest glory? and how many years will it require to produce a tree comparable in girth and height to those grand old cedars whose huge blackened and charred stumps are crowded along the road?'

### EASTERN FORESTERS.

#### What University of New Brunswick Men are Doing.

Mr. R. B. Miller, Professor of Forestry in the University of New Brunswick, writes in reply to a letter of the editor of *The Canadian Forestry Journal* that the work of the academic year has concluded most satisfactorily and that the prospects are very bright. He encloses the following from one of the daily papers of Fredericton:—

The foresters in the University of New Brunswick are getting positions for the summer and it is hoped the majority will be placed before Encaenia or shortly afterwards at least. Of the seniors, K. R. Machum takes a position with the C. P. R. Forestry Branch, and H. B. Murray is the only man to go to British Columbia under H. R. MacMillan, Chief Forester. R. K. Shives will go to Prince Albert, Saskatchewan, and in his party as assistant will be H. S. Laughlin, of the junior class. G. P. Melrose of the same class is also with the Dominion Forestry Branch as well as A. M. Gunter and Don A. McDonald. The two latter will be assigned to the Dominion Experimental Farm where they will make studies of growth in the arboretum. Jack Hipwell, Harry Holman, Frank McGibbon and Cortland Otty, the latter an engineer with some forestry experience, have received positions with the C. P. R.

Forestry Branch, at Calgary, Alberta. All of these are sophmores. C. L. Armstrong and C. R. Townsend of the freshmen have been placed, as well as Sam Weston, '14, with Mr. Reginald R. Bailey, Plaster Rock and will be on the Tobique with Foster Howe and H. C. Belyea, U. N. B. men engaged in cruising for the New Brunswick Land Co. On account of other men getting ready for examinations, five U. N. B. men, some of them foresters, were sent to Nova Scotia for the C. P. R. K. Vavasour, R. D. Jago, A. M. Brewer, Guy Horncastle, and C. E. Maimann, left here April 15th.

The Forestry Department at the U.N.B. is steadily growing in popularity and the usefulness of this science is becoming more generally recognized. The number of students in forestry it is expected will be largely increased next year.

### HOW TO PREVENT FLOODS.

The floods which swept through the middle western states were more destructive this year than ever before. Not even the awful Johnstown flood can be said to parallel in loss of life and property the terrible disasters which recently took place. The New York 'Outlook' in 'A Poll of the Press' on the subject of flood prevention in the light of recent experiences returns a verdict which should make forest conservationists more zealous than ever for their cause. The 'Outlook' gives first place to the opinion expressed by the Buffalo 'News.'

Nothing is more familiar in the experience of mankind than that cutting down the forests to an unreasonable extent invariably leads to floods and to erosion of soil, and, generally speaking, to enormous damage to farming country as well as to cities and villages that lie in the path of streams.

Hardly any other lesson in our human experience is more deeply and bitterly written than that of the folly of neglect to preserve a certain proportion of forest lands with a view to security of inhabitants.

Some marvel that in the generations past, say in the early days of the settlement of the Central West, as well as of the eastern part of the United States, there were no such disastrous floods as we have to-day, but it is all accounted for by having the land so cleared that as soon as rain falls or snow melts it immediately goes down grade with the utmost speed into creeks and rivers and begins its work of destruction.

Formerly there was enough of forestry to make a sort of natural reservoir that should hold back the waters. We shall have to reforest the country to a reasonable extent . . .

Hence the first preventive of flood is *Forrestation*.

'The wind no man can tame. Like the earthquake, it is a hazard which civilization must accept. But floods are, in part, man-made. Once the Miami Valley, the pathway of the latest horror of the angry waters, was tree-clad and root-bound against excess of moisture. Then man came, saw gold in the standing timber, and felled it covetously and ignorantly.' So asserts the Sault Ste. Marie 'Evening News,' and asks: 'The greed that felled those noble trees, the carelessness and ignorance that stripped those narrow watercourses to the fatal onrush of the raging torrent—shall they not come under a resolution of abatement?'

We see examples of forest-destruction in many parts of the world, notably in China, where, according to the Sioux Falls 'Press,' to mention only the most notable floods, in 1833 no less than ten thousand persons were drowned by the floods; in 1888, three thousand; in 1904, over a thousand; while last year the floods made China the scene of a particularly dreadful disaster.

If floods are frequently reported from the Chinese Empire, they are seldom reported from Europe, but even there, in Paris itself, the people 'who have a most compelling reason to strive to keep their Seine within bounds, have not been able to provide against all contingencies, as witness the overflow of that stream three years ago,' the Galveston 'News' points out. But, as the Knoxville 'Sentinel' comments: 'After the last Seine flood the French Government took steps to afforest slopes which have been injudiciously denuded. It may be necessary for Ohio and Indiana to do likewise.' Their own recent disaster has caused French for-

esters to take special interest in ours. M. Daubray, Inspector of Forests, together with all the technical authorities in the French Ministry of Agriculture, agree, so we learn from the New York 'Tribune,' 'that the destruction of forests near the sources of rivers and high plateaus and hills is the primary cause of the Ohio disaster;' moreover, this opinion is shared by our Ambassador in France, the Hon. Myron T. Herrick, formerly Governor of Ohio, who states that 'for many years Governors of States where floods are now raging have repeatedly impressed upon Legislatures and the public the urgent necessity of enacting stringent laws based on the scientific experience of France and Germany for protecting forests from devastation and wholesale destruction.' The present catastrophe is attributed by Ambassador Herrick to this waste of forests, 'which, by timely legislation, could have been avoided.' He urges that no time should be lost 'in taking energetic measures to replant tracts of land so improvidently denuded of trees.' Finally, the Ambassador regrets that 'the wise provision of law embodied in all leases of land in the rural districts of France, requiring the lessee to plant a tree whenever a tree dies or is removed, does not apply in Ohio and Indiana.' Such provision, it is added, 'is merely one of many precautions to protect French trees, and if enforced during the last thirty years in Ohio and Indiana would have prevented the present disaster.'

Turning from France to England, we find similar expressions of opinion in the editorials of London newspapers, summed up in the 'Daily Mail's' charge that 'one cause of the floods is undoubtedly to be found in the destruction of forests.' The 'Daily Mail' emphasizes 'the extreme importance of the campaign now being carried on in the United States for the protection of the remaining forests and the reforestation of denuded areas.'



# Toronto Students in Norfolk.

## Dr. Fernow's Students Study ing Afforestation Problems.

From the 20th to 26th of April the third and fourth year students of the Faculty of Forestry of the University of Toronto under Dr. B. E. Fernow, Dean, spent a most profitable week at the Ontario Government Forest Nursery near St. Williams in Norfolk County. This is the second visit made to these nurseries by this school and arrangements are now being made by which it will be possible for all students after passing their first year to spend the whole summer there and thus become thoroughly

transplanting tools imported from Germany and many a student that day found himself closer to mother earth than he had been since his mud-pie days.

These tools, complicated and even cumbersome though they seem, are yet both rapid and efficient in the hands of an expert. They are however, only fitted for the soils for which they are designed, and while the students handled them with considerable success, it is doubtful whether they will prove widely applicable in this country.



### SNAPS IN THE NURSERIES.

1. Making Seed Beds.
2. Dr. Fernow Shows How to Transplant.
3. Making Growth Studies.
4. Plantation of Jack Pine on Sand Waste.

familiar with the practical side of the work. This year the trip was held between spring examinations and came as a pleasant relaxation from studies for the eighteen students who took part in the excursion.

On arrival at the nursery the boys were met by Mr. E. J. Zavitz, the Provincial Forester for Ontario, who conducted them over the ground, explaining the work and giving the history of the various plantations inspected. The following day, under the instructions of Dean Fernow, they were initiated into the uses of the many mysterious

The reforestation of the waste land is done in rows, the young trees (mostly Scotch pine) being set about four feet apart each way. On grass lands sufficient sod has to be removed to preclude the possibility of the young trees being choked out by grass and weeds. Usually a plot about two feet square is sufficient for this purpose. Where conditions permit, the waste lands are ploughed with furrows about three feet apart, and the men work down these furrows in groups of two, (one man making the hole with a spade, the other setting the plant,)

a single group often setting as many as 3,000 plants a day.

The Forestry students took a hand at all these methods, some of them realizing for the first time the full significance of the curse of Cain.

The necessity for reforestation in this locality was clearly seen in a ten mile tramp they took, headed by Dr. Fernow, through the surrounding country. Such land as was still being farmed, bore but scanty crops. In the lee of the snake or stump fences the sand was drifted like snow, and from one point, over a square mile of practically bare sand could be seen heaped in dunes or dug into hollows by the wind.

That the sand was unfitted for farm crops was very clearly seen. That it was capable of producing splendid forests was as clearly indicated, both by the vigorous growth of the young plantations, and by a stem analysis of the old stumps of the original stand of white pine and chestnut which frequently showed the remarkable diameter growth of an inch per year. Walnut and butternut are indigenous in this region, as are also many trees such as the black gum tulip tree (yellow poplar) and chestnut which are exotics in other parts of Canada.

The students were the guests of the Ontario Government, though it is doubtful if they really earned their board for it was the good old fashioned country fare such as one reads about, but seldom enjoys. It may have been for this reason that they were none too keen to return to the city after their five day visit, but it is more likely that the prospect of renewed examinations was the chief reason for this reluctance.

## AN EARLY CONSERVATIONIST.

### Sir Richard Scott's Work as Commissioner of Crown Lands.

In the many fine things that were said of the late Sir Richard Scott who passed away at his home in Ottawa on April 23 in his eighty-ninth year, there was but little note of what he did for forest conservation. Sir Richard was so long in public life that people are apt to think of him only as Dominion Cabinet Minister and Senator and to overlook the fact that many years ago, in fact in the early days of Confederation, he was Commissioner of Crown Lands for Ontario. One of the biographical notices of the deceased parliamentary leader thus refers to this feature of his work.

'On taking office as Commissioner

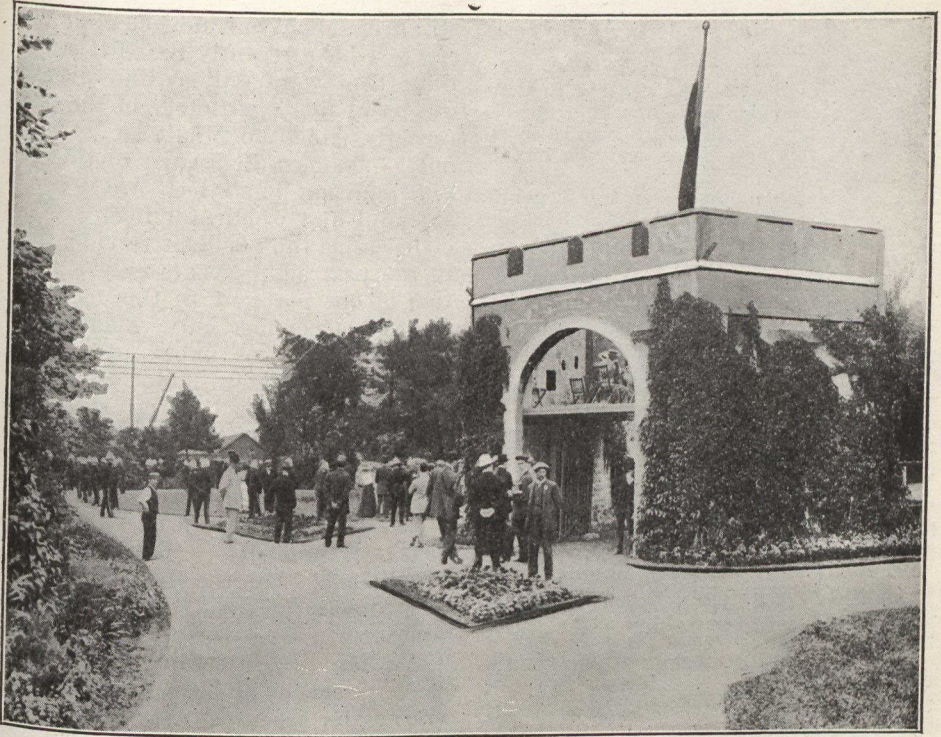
of Crown Lands for Ontario Sir Richard formulated a policy in regard to timber licenses which allayed the fears of the lumbermen that their operating regulations were to be ruthlessly changed.

'He was afterwards asked to take up the matter with the Quebec Government, did so and submitted a series of suggestions which were adopted with but few modifications. This was not the only service Sir Richard performed for the lumber trade, however. Some years before this the ruinous policy of allowing squatters to locate on lands chiefly valuable for the pine and not suitable for settlement had been in operation. Against this he warred by every means in his power and was the first to draw public attention to the supreme importance of the conservation of the great national asset, Canada's timber resources. Had his suggestions been adopted in time it would have meant the inheritance of immense wealth for the present generation.'

## WHAT'S DOING IN THE ROCKIES.

### Interesting Development in the Work of the Dominion Forestry Branch.

Number One, Volume One of *The Rocky Mountain Review*, the quarterly publication issued by the staff of the Rocky Mountains Forest Reserve comes smilingly forward in a happily-chosen green cover. Inside the cover are twenty mimeographed pages of the snappiest kind of news and suggestions. The *Review* marks a new stage of development in forest administration in Canada. A few years ago the Rocky Mountain Reserve was a vision, a hope of foresters and forestry enthusiasts. Now there is a finely organized territory under an inspector, five Forest Reserve Supervisors and twenty-four rangers. Further, through the *Review*, they keep in touch with one another and with the progress in other parts of the country.



The Historic Gate of Old Fort Garry, Winnipeg.

Says the announcement in this first issue:—

This publication has a number of purposes, the chief of which may be stated as follows:

1. To serve as a directory of members of the Service in the District.
2. To act as a news letter so that each Reserve may know what is being done on the others in the District and may compare the progress of work on the various Reserves.
3. To act as a medium for exchange of ideas between officers and rangers throughout the District.
4. To act as a basis of exchange with National Forests in the United States who publish similar papers and for exchange with other branches of the Dominion Service and the Forestry Services of the various provinces. Also to give the members of the Alberta District force the benefit of the experience of other Forestry Services both in Canada and abroad.
5. To act as a periodical catalogue of Forestry Branch publications and library accessions.
6. By fulfilling the above functions to maintain a feeling of unity and solidarity among the members of the Alberta District force.

In order to accomplish the object of furnishing information in regard to the work being carried on in the various Reserves of the District the Supervisors of each Reserve have been requested to prepare a short statement each month of the work done on the various Forest Reserves under their charge. These news letters will describe the Forest work under the following headings: Improvements, Fire, Timber Sales, Timber Permits, Grazing, Trespass, Investigations, Miscellaneous Activities, and Personal Mention.

It can be readily understood that with the large body of men employed in this District various schemes of promoting efficiency in the work of the Service are constantly being devised. This is particularly true on Forest Reserves which have a large amount of one kind of work such, for instance, as the settlers permit business. In such Reserves the wide-awake Forest Officer generally has devised some simple scheme for expediting the handling of this business and contributing to the convenience of the public as well as reducing the cost to the Forestry Branch. The same is true of other lines of work. Also experiments of various kinds in the line of construction are constantly being carried on and frequently very good ideas

are developed. In order to give the entire force the benefit of this experience it is planned to run a Department for contributed articles in the Rocky Mountain Review and Forest Rangers and other Forest Officers are requested to forward short articles of this nature for insertion in the publication.

A considerable number of forest publications from the National Forests in the United States are received by the Inspector's Office as well as a number of lumber journals and forestry periodicals. In such papers there is generally to be found a great number of items of interest to members of the Forestry Service and one of the main purposes of this publication will be the insertion of items clipped from exchanges so that they may be brought to the attention of all of the officers in the District.

*The Canadian Forestry Journal* wishes the 'Review' a long, useful and happy life. In the promotion of efficiency and pleasure among all it reaches it will do a great work in Canadian forestry to-day.

The officers in charge of the reserve are: — District Inspector, W. N. Millar. Supervisors Forest Reserves; Crows Nest, R. M. Brown; Bow River, F. G. Edgar; Clearwater, Jas. W. McAbee; Brazeau, L. C. Tilt; Athabasca, L. C. Tilt, (acting); Cypress Hills, W. N. Millar, (acting); Cooking Lake, W. N. Millar, (acting).

### PROGRESS IN FORESTRY.

(Continued from page 69.)

twice as much to build a house as it did in 1900. Fast as our population in Canada has been increasing since 1890 our wood consumption has been increasing nearly three times as rapidly. Canadians are now the largest per capita consumers in the world of wood products. Our timber exports to Great Britain fell off nearly one million dollars last year. In two or three decades when we have largely used up our valuable timber and feel forced actually to grow our timber supply the prices will be for the poor man almost prohibitive.

In view of these facts why do we

still prate about our inexhaustible forests? I have recently heard it stated that there were billions and billions of feet of fine saw timber in the part recently added to Manitoba. I am not a pessimist in regard to this recent addition, but I feel sure it has a splendid and wonderful future. Nevertheless as the result of terrible fires in the past eighty years only a fraction of one per cent. of this territory to-day has commercially valuable saw timber,—that is, timber over eight inches in diameter. But the country has a thrifty young stand of spruce, which, if it can be saved from fire, will in say twenty-five years form highly valuable pulp wood forests.

Dr. Judson F. Clark of Vancouver, says:—'Personally, I think it is beyond doubt that the development of a rational, and therefore practical and business-like, forest policy, by the Canadian Provinces and the Federal Government, will have a greater influence on the prosperity and happiness of our country half a century hence, than the solution of any other problem which is within the power of our generation to solve.'

If we agree with Dr. Clark the next question is how are we to go about this work? To arrive at a just and correct basis of co-operation is the crux of the problem, and hence I have placed it in the centre of the following six factors, which I believe will appeal to you as perhaps the main elements to be considered in your working out of such a forest policy, viz.:

1. Education of Public Opinion, to provide the authority, the money, the driving power.

2. Classification, according to its producing capacity, of all publicly owned land, including of course licensed berths, to provide for permanence of use.

3. A scheme of cordial and mutually profitable co-operation, on an equitable basis of duties and rewards, between the sovereign people and the operating lumbermen.

4. Organization on a strictly non-partisan basis, of a trained and efficient forest service personnel, to administer and supervise, and carry out, all needed field and office work.

5. Provision and equipment for investigation and research work, dealing with forest problems of every description, and methods of solving them.

6. Legislation—Whatever may be required to give full effect to the will of the people regarding the management of their forest lands, and to insure uniform requirements from every forest user.

#### PRESENT CONDITIONS.

'Wise use, wisely regulated,' is the essence of conservation, and its twin axioms as applied to Canada's renewable resources are, 'Every acre a producing acre,' and 'Every acre to its best use.' This highly practical ideal demands as its first step, land classification, and I am glad to say that the Dominion Forestry Branch is undertaking vigorously this most important work of determining just what portions of these Prairie Provinces are primarily adapted to the production of wood crops, rather than food crops. During the past three seasons many survey parties in different parts of the West have been engaged in this work, and as a result of their work approximately ten million acres have been classified as forest land and recommended for inclusion in the permanent forest reserves, or national forests, as I prefer to call them. This addition to the older reserves will give you a total of some thirty-five thousand square miles, which, however, is only a good start in relation to the whole area of the public lands best adapted to forest purposes.

While it is true that rough timber land has acre for acre, a lower producing power than farm land, still the enormous area of this non-agricultural land in Canada puts it in the front rank of her natural resources. Dr. Fernow's survey of Nova Scotia

classes nearly eighty per cent. of that Province as absolute forest land. British Columbia has at least as great a proportion, while in Ontario and Quebec probably two-thirds is non-agricultural in character. In 1910 I examined eight thousand square miles of the country north east of Le Pas, now a part of Manitoba, and eighty per cent. of this territory is absolute forest land. Taking Canada as a whole probably fifty per cent. of her cropable surface is chiefly suited for growing timber.

Are you satisfied that as a people Canadians are giving enough attention to this half of the national farm? Upon its wise management must rest the future prosperity of the lumber industry. The forests in controlling water supply and water power are destined more and more largely to affect the welfare of farmers and manufacturers.

#### EDUCATIONAL WORK.

Grain and stock farmers are being given a ten million dollar grant to assist in their work, but lumbermen (our tree farmers) are given little or no help to discover the laws which govern a maximum production of their crop. Farm crops require only from fifty to one hundred days to mature; timber crops require from fifty to one hundred years. In this long time element rests the fundamental difference between agriculture and silviculture, between farm crops and timber crops. In general the Government is the only institution long lived enough to practise successful forestry.

#### THE CONTROL OF LICENSED OPERATORS

All are agreed that the Government should have absolute control of all lumbering operations on Crown lands, including of course, the licensed berth lands, simply to insure that your forests shall be cropped, rather than mined. Yet it is to-day a most disquieting fact, that on all that part of the forest domain now held by licensees, the public has actually permitted all effective control to lapse

and become, so far as forestry is concerned, a dead letter. The nation is exercising no supervision over their work, in the woods—which is the one only thing that really counts, in forestry.

You need to consider the future more. For instance, in this latest copy of rules, issued in 1910, to govern the cutting of timber on your licensed lands, I find page after page of 'Thou Shalts' and 'Thou Shalt Nots,' all designed to insure,—What? Why only that you may get a few dollars of revenue from the existing crop of timber. All well and good, but what about silviculture? What about applying some actual forestry methods in the woods, so that in cutting away this old stand of trees a thrifty new crop may be provided for by natural reproduction? What, in a word, are you doing to make provision for the cropping of the forest rather than the mining of it? What are we doing to build up and safeguard the future producing power of our forests?

#### CONCLUSION.

There are two abuses which menace the free, equitable, and profitable development of our natural resources, by scientific and business methods. These are special privilege, and political influence. If you can see your way, first, to overcome these twin evils which are now blocking so largely any efficient progress towards improving and protecting your timberland, and second, to co-operate fully with your lumbermen; I feel safe in saying that nature herself will present no problems which a trained field force cannot easily solve. Let all forest officers in the Government service, and more especially at present, forest rangers, be required to pass a fair test examination in token of their real fitness and ability; and let all forest users be treated with absolute equality regarding the requirements which shall govern their work in the woods.

#### THE WINNIPEG CONVENTION.

(Continued on page 65)

and Manitoba Agricultural College. It is the centre of the grain trade and a very important point in the flour-milling, lumber and live stock industries besides being the commercial gateway to the whole Canadian west. There are a number of beautiful suburban districts.

#### RAILWAY ARRANGEMENTS.

Owing to the fact that the Convention will be held on the day preceding and the first two days of the Winnipeg Exhibition, delegates attending from points within what is called the 'Winnipeg Exhibition District' will not be required to secure certificates. They will purchase railway tickets at the special rates in force during the Exhibition. It will be necessary, however, that those travelling on these tickets give their names and addresses to the Secretary for the purpose of compiling the railway returns. The Winnipeg District extends from Fort William on the east to the Alberta-British Columbia boundary. (On the Canadian Pacific Railway these rates extend to Golden and Cranbrook, B.C.)

#### FROM EASTERN CANADIAN POINTS.

Delegates attending from points in Canada from Port Arthur eastward can secure single fare rates (plus 25c) on the convention certificate plan. To secure these rates delegates will purchase one way first class tickets which will be sold them at the lowest one way first class fare, plus 25c. When purchasing these tickets they must secure a standard certificate which the agent will furnish upon request, and this certificate when signed by the Secretary in the Convention at Winnipeg as showing that the party was a delegate will be honored for ticket through to original starting point free.

*Going Dates.*—Tickets for going trip by all rail routes will be sold July 3 to 6 inclusive; days of sale via lake and rail routes to be announced later.

*Returning.*—Standard convention certificates properly filled in and signed by the Secretary of the Canadian Forestry Association will be honored at Winnipeg up to and including July 24 for tickets to original starting point free, except that where lake routes are used additional payment will be required as follows:

*Lake Arbitrarities.*—The following additional amounts to be paid at Winnipeg when certificates are honored for return journey if passengers elect to travel via lake routes, viz.:—(Via C.P.S.S. line or Sarnia N. N. Co., and Port Arthur). Going all-rail, returning lake and rail, \$9.00 additional. Going lake and rail, returning all-rail, \$4.00 additional. Going lake and rail, returning same route \$13.00 additional.

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**Going Dates:** July 4, 5 and 6.

**Return:** Certificates signed by Mr. Jas. Lawler, Secretary, Canadian Forestry Association, to be honored at Winnipeg up to and including July 12th for free return tickets back to starting point with a transit limit of 10 days.

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**PLEASE NOTE.**

It will greatly facilitate the work of arranging for the Convention if those who intend to be present will notify in advance, the Secretary, Canadian Forestry Association, Canadian Building, Ottawa.

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