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CANADIAN

FORESTRY

JOURNAL

---

VOL. VIII.



1912

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PUBLISHED AT OTTAWA  
BY THE  
CANADIAN FORESTRY ASSOCIATION

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# Canadian Forestry Journal

VOL. VIII.

JAN.-FEB., 1912

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No. 1.

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(1) The exploration of the public domain, so that lands unsuitable for agriculture may be reserved for timber production.

(2) The preservation of the forests for their influence on climate, soil and water supply.

(3) The promotion of judicious methods in dealing with forests and woodlands.

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# Canadian Forestry Journal

VOL. VIII.

OTTAWA, JANUARY-FEBRUARY, 1912

No. 1

THE official organ of the Canadian Forestry Association. A magazine devoted to the interests of forestry and in general to the advocacy of the wise and conservative use of the natural resources of Canada.

Annual Subscription, - \$1.00  
Single Copy, - - - 25c

Literary Contributions and communications regarding editorial matters together with communications regarding subscriptions, changes of

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## The Thirteenth Annual Convention.

'With a larger attendance and more evident enthusiasm than at any previous gathering in the interests of forest conservation ever held in this country, the thirteenth annual convention of the Canadian Forestry Association was opened yesterday morning.'  
—Ottawa Citizen.

To those responsible for the carrying out of this convention, conscious of the many shortcomings and gaps therein, these words and many sim-

ilar ones seem all too kind. At the same time it would be mock modesty to pretend that the officers and leading members of the Association are not pleased with the convention and do not realize that in the main lines on which it was planned it was a decided success. The aim was to make this convention as practical as possible, and to inaugurate a forward movement in regard to the handling

of those forest reserves which the different governments in Canada, federal and provincial, have set apart. It did this and more. It demonstrated to the man in the street, that forest conservation is now a matter which must be dealt with. Even to those in touch with the work it revealed greater advances than they had dared to hope for.

But to speak as if this convention were a thing apart, and a success by itself would be entirely wrong. There could have been no convention of value had the foundations not been laid in the past. Not only must one refer to the great convention of 1906, which brought home the national character of the work, but there was the patient work from 1900 when the Association was organized. Even further back than that, as the *Montreal Gazette* reminds us in a most thoughtful article, there was the meeting in that city of the American Forestry Association in the year of its organization (1882) 'when the Houghs, the Littles, the Jolys, the Penhallows and other wise men warned us against the assured nemesis of long generations of indifference.' On that occasion Mr. William Little chartered a large passenger steamer and held her at the wharf for three days that the delegates might have sleeping accommodation. In 1906 Mr. John R. Booth took the delegates out in a special train to see operations in his Madawaska limits. And the labors of Senator Edwards, and Messrs. Herbert M. Price, W. B. Snowball, Aubrey White, E. Stewart, Hiram Robinson, Thomas Southworth, R. H. Campbell and the late rector of Laval University, Mgr. Laflamme, are too much in mind to need recapitulation; work that was generously endorsed and supported on the governmental side by Sir Wilfrid Laurier, Hon. Clifford Sifton, Hon. Sydney Fisher, and by Rt. Hon. R. L. Borden, Hon. Frank Cochrane, Hon. Jules Allard and Hon. W. C. H. Grimmer in their

respective spheres. Then, too, the generous aid of the leading banks of Canada helped to make progress possible. Those who promoted the convention of 1912 often had occasion to say to themselves, 'Other men labored and ye have entered into their labors.'

Coming to the convention held, a review of its leading features shows that the effort was to follow the advice of Hon. Clifford Sifton given at the last meeting at Quebec to 'get something done'. In a word the whole aim was to be as practical as possible. This aim was furthered by the fact that for the first time in the history of the two organizations the Forestry Association and the Lumbermen's Association met at the same time and place. Some fearful ones, believing that the Forestry Association thought the Lumbermen selfish and careless in their operations, and that the Lumbermen deemed the Foresters a body of doctrinaires and impractical theorists, considered it inevitable that there would be a clash and an explosion that would injure the work of both. Instead of this, however, the convention proved a clearing house of ideas and showed that lumbermen and foresters are practically one in aim, and with not nearly so much divergence as to method as had been supposed. Instead of mutual recriminations there were mutual confessions, with the result that because of better understanding there will be better work on the part of both than ever before.

The meetings were held in the Railway Committee Room, which, next to the Commons Chamber, is the largest hall in the building. It seats comfortably somewhat over 250 people and during most of the sessions so many were standing as to bring this number considerably over 300. Viewed from the present moment it might have been better to hold the business sessions in some larger hall down town, but this would in all probability have prevented the attendance of the Right





Mr. G. Y. Chown.



Ven. Archdeacon R. J. Renison.

Hon. R. L. Borden, Premier, and Sir Wilfrid Laurier, who in the midst of tremendous pressure of their work in the heat of the parliamentary session were still able to devote an hour to the opening and an evening to the banquet. This fact is very much appreciated by all connected with the convention, and it goes to show how deeply in earnest our parliamentary leaders are in assisting the Forestry Association in its work to save the forests.

The Premier and Sir Wilfrid Laurier brought fitting words of welcome to the delegates and started off the meeting with a swing. The President, Mr. Geo. Y. Chown, in his address, demanded a forward step. Then came Mr. MacMillan's paper showing what a forward step would cost and what results it would secure.

Dr. Fernow in his report on forest fire legislation complimented Quebec that the rural clergy there helped in the fight against forest fires by giving warnings from their pulpits, and this fact that forest conservation is

of vital interest to others than those directly connected with it, was brought out at this convention by the attendance of the Very Rev. the Abbot of the Trappist Monastery at Oka, Quebec, which has done so much for the cause of agricultural education; by the presence of a number of Protestant clergymen, as well as the stirring address in which Archdeacon Renison, an Anglican missionary of fifteen years experience in Northern Ontario on the shores of Hudson Bay, urged the employment of the Indians as fire rangers. Besides this there were accredited delegates from boards of trade, county councils, Canadian clubs, associations of manufacturers, agricultural colleges, women's clubs, fish and game associations, etc.

The widespread appeal which forest conservation makes was evidenced as to its extent by the fact that delegates were in attendance from nearly all the provinces of Canada, including a representative from British Columbia and the Premier of Prince Edward Island, and from a

number of the states of the Union, including, in addition to Mr. Gifford Pinchot of Washington, Mr. E. A. Sterling, Forester of the Pennsylvania Railroad, Dr. J. T. Rothrock, of Pennsylvania, Mr. C. R. Pettis, Superintendent of State Forests, of New York; Dr. E. H. Hall, of New York, Mr. Harris A. Reynolds, Secretary of the Massachusetts Forestry Association, Mr. W. R. Brown, President of New Hampshire Forestry Commission.

The aim of the program committee was as far as possible to have one paper for each of the four business sessions with the object of devoting the remainder of the session to discussion. Here again many believed that a dangerous experiment was being tried, but the full and frank discussion participated in by forest engineers, educators, administrators and lumbermen gave a large amount of valuable information that could have been secured in no other way, and besides brought about a better understanding by each of the aims of the other than has heretofore existed. At times the divergence of view seemed to be great but before the discussions ended in every case the participators were much nearer agreement than when it opened.

The banquet in the Parliamentary Restaurant on Wednesday evening was one of the most successful features of the convention. Covers were laid for 200 guests and nearly every seat was occupied when the assembly sat down. The speaking was of a very high order, and it is safe to say that the Premier and Sir Wilfrid Laurier have never been heard to better advantage. Mr. Pinchot made a most striking speech, which, while it dealt with the general principle of conservation, did not cover any of the ground of his address on the following morning. The speeches of Mr. Alexander MacLaurin and Mr. Wm. McNeil for the lumbermen, and Mr. Nathaniel Curry, President of

the Canadian Manufacturers Association, showed how the conception of the need of forest conservation has gripped the leaders of industry in this country. Here again the united character of the meeting was in evidence. The lumbermen, in addition to the seats allotted to their leaders at the head table, filled two out of the five cross tables, while one side of one of the remaining tables was occupied by graduates or undergraduates of the Forest School of Toronto University.

A striking feature of Thursday morning was, of course, the great address by Mr. Gifford Pinchot on "The Groundwork of a Forest Service." The four points necessary to a successful forest service were (1) no politics, (2) enough money, (3) trained men, (4) federal control. A number of those present declared it was the finest address on practical forest conservation and administration that they had ever heard. Mr. R. H. Campbell, Director of Forestry of the Department of the Interior, Canada, in a few words following Mr. Pinchot, told of a visit he had made to some of the national forests of the United States after the reforms made by Mr. Pinchot, as Chief Forester of the United States, had been put into force. He found enthusiasm, intelligence and faithfulness—men with a pride in their work and a determination to keep out fire and other enemies of the forest, and to make it as useful as possible to the people. He hoped to see like results in the Canadian service.

In the afternoon Mr. E. Stewart, first secretary of the Canadian Forestry Association and one of its past presidents, gave his paper on the aims of the Association, holding that it should be an educative and agitating force but should not take up political questions or do administrative work. The various items of the necessary routine business of the Association which showed its finances to be in a healthy condition were

rapidly dealt with, the report of the resolutions and nominations committee presented and adopted and the 13th annual convention concluded.

### Wednesday Morning.

At ten o'clock the President of the Association, Mr. G. Y. Chown, B.A., Registrar of Queen's University, Kingston, called the assembly to order, and introduced the Premier, Right Hon. R. L. Borden.

Mr. Borden, after welcoming those present to Ottawa, briefly referred to the convention of 1906 and the progress of the Association's work since that time. 'We have been happily blessed in Canada,' he continued, 'with not only a great abundance, but a great variety of resources, and perhaps none of the natural resources of Canada which are at the command of our people are more important than those of the forest. We should all bear in mind that a nation, like an individual, may be prodigal. A young man comes into a vast estate; he sees no object more worthy of his attention than dissipating that estate as rapidly as possible. Similarly a young nation like Canada is apt to be reckless of its heritage. I think that every man who has given consideration to the subject will agree that, up to the present time, there has been a lack of thrift on the part of the people of Canada so far as the forests are concerned.'

Referring briefly to the subject of conservation, he observed 'As we properly understand conservation it means, after all, only wise and efficient utilization . . . . Every one of us must realize that such utilization must take place on wise lines and must have regard to the interests, not only of those of the present day, but of the interests of those who come after us as well.

'Burke has well said that the nation is a partnership, but not a partnership of the living alone, but a

partnership of those who are living, those who are dead and those who are yet to be born. It is in the spirit of these words, it seems to me, that the question of conservation should be approached.'

After referring to the lack of discrimination between soil fit for farming and that fit only for growing forests up to the present, he went on: 'Everyone who is gifted with the slightest power of observation must realize that the lands have been cleared and settlement made thereon in many places in Canada where the soil would have been infinitely more valuable if the forest had been preserved and the annual crop of the forest used from that land instead of the attempt being made to raise the ordinary crops of agriculture.'

Referring then to the question of forest fires, he concluded: 'No better work could be done by your gathering in this convention than to impress not only upon the Legislature but upon the people at large the importance, nay, the absolute, imperative necessity, of such legislation and such concerted action by all interested in this question that this awful destruction by fire shall no longer prevail, but shall be reduced as much as possible. I read in works on conservation which have been recently published in America that in the methods followed by the lumbermen in utilizing the material that they take from the forest there has been—in the United States at least—a very great and unnecessary waste. I do not know whether you have discussed that or attempted any education of the people in that regard, but it does seem to me that this is a subject which might well engage the attention of your Association, and in respect to which the methods to be adopted in the future might prove more efficient than those adopted in the past.'

After again expressing his sympathy with the work of the Association, and welcoming the delegates the Premier closed his address.

The president then called upon Right Hon. Sir Wilfrid Laurier, leader of the Opposition, to address the convention.

Sir Wilfrid opened with a reference to the 1906 Convention and to the sympathy and co-operation he then received from Mr. Borden. He also gave a word of welcome to those present.

'It has taken us a long time to realize,' Sir Wilfrid went on, 'that the forest is one of the greatest assets of our country. Of course, we know that one thousand acres under tillage will support a larger population than one thousand acres covered with forest. But we have commenced to learn also that, unless certain portions of the country are covered with trees, remain under forest, the soil as a whole will not be as productive as it would be otherwise. There are certain portions of the earth's surface in every country, and particularly in Canada, which were designed and intended by nature to remain in forest.'

Sir Wilfrid then referred to the destruction of the forest by the early settlers, and the present awakening to their value. 'In the nature of things everything has an enemy,' he continued, 'but besides these enemies which attack the forest as part of the work of nature, the forest has three enemies of whom I desire to say a word. These three enemies are the settler, the railway and the prospector. I repeat what I have just said that there are certain parts of the country which ought to remain under trees. But the settler cannot always appreciate that. If he sees two hundred acres of land in a small valley which he thinks suitable for tillage, he very often does not care though, by clearing the soil on that two hundred acres, he destroys, perhaps, a hundred thousand acres of timber. I wish your convention would give attention to the suggestion made by my right honorable friend the prime minister a moment

ago when he suggested that there should be a survey of the whole country made to distinguish what is forest land and what is tillable soil. If the Conservation Commission which was appointed some years ago, and which has been doing some splendid work, were to apply itself to making a survey of the whole country, to carefully point out which part should remain in forest and which should be given to the settler, I am sure that the Prime Minister would not hesitate to put an appropriation in the estimates in order to have this map distributed over the whole country so that every man should know what land ought to remain in forest and what could be given over to the settler. I think we are all agreed that the hillsides and all the plateaux which are the sources of rivers should be conserved sacredly in forest, for if these hillsides and plateaux are denuded of their forests, the rivers will suffer and even the climate will be affected

. . . . Then I would be prepared, for my part, to join in an effort to induce all governments and parliaments and legislatures to have these plateaux for ever reserved, and never have the axe of the settler in them, but only the axe of the lumberman.'

Sir Wilfrid then referred to the railways as the cause of forest fires. While giving them credit for their efforts in this direction, he thought much more could be done.

'The third enemy of whom I have spoken is the prospector,' Sir Wilfrid continued. 'I am afraid he is not always as careful as he ought to be to put out his camp-fire. And this may be particularly true of some who realize that a forest fire uncovers the rocks in which he is seeking the find for which he so eagerly searches. I am told (I have no personal information on the subject) that the terrible fires of last season were largely caused by the prospector.'

With a few words of endorsement of what the Premier had said and of welcome to the delegates Sir Wilfrid resumed his seat.

The president then delivered his annual address. He reviewed the work of the society for the year and the progress of conservation work generally. He advocated the association taking a more aggressive attitude, and suggested three lines along which they should agitate, viz., (1) the taking of the forest services out of politics, (2) a permanent forest policy for Canada, (3) the adoption of efficient means of dealing with slash. He urged the employment of a trained forester by the Association.

#### A Progressive Forest Policy.

Mr. H. R. MacMillan's paper, entitled 'A Progressive Forest Policy Requires an Investment of Capital', was then read, in the absence of the writer, by Mr. R. H. Campbell, Director of Forestry, who, in reading it, made many valuable comments.



Mr. R. H. Campbell.

Mr. MacMillan drew attention to the fact that the setting aside of forest reserves was but the beginning of forestry. Proper administration of these reserves

must follow, and this demanded trained men and money. If properly managed, the Riding Mountain forest reserve in Manitoba would produce enough timber to supply in perpetuity the saw-mills of Ottawa and Hull, and yet leave wood for thousands of settlers. Again, the Rocky Mountain forest reserve would produce more timber than is now manufactured in the two provinces of Ontario and British Columbia, the two foremost lumber provinces of the Dominion.

Centuries of forest management in Europe proved that the financial return per acre from forests was in direct ratio to the amount spent in protection and management of the crop. Examples were quoted in proof of the statement.

The first need for expenditure on the forests was to make them 'fire-proof'. Fires along railways could be prevented by patrol and proper locomotive equipment, and by making the rangers live in these districts. The reserves must be made accessible in all parts by trails, and rapid communication must be provided for by the use of telephones. These must be supplemented by lookout stations with telephone connections.

Such cutting regulations must be enforced that the forest will not be left a fire-trap and that the trees may seed in naturally. Slash must be disposed of. Scientific study must be carried on to determine the proper methods of logging in each district, and experiments must be made in, and study given to, the utilization of saw-mill and other waste, the possible extension of the pulp industry and many other questions connected with the utilization of the forests.

Above all, the fact must be constantly borne in mind, that money intelligently put into forestry will yield good returns in future.

Ven Archdeacon R. J. Renison of Moose Factory, Hudson Bay District, (in charge of Church of England mission work in Northern Ontario), opened the discussion and in a vigorous speech urged the employment of Indians as fire rangers. The Indian, he said, was thoroughly at home in the woods, where his life was spent, would do far more work than a white man, and would make a good game warden as well as a good fire ranger.

Mr. E. Stewart, formerly Superintendent of Forestry, supported Archdeacon Renison's view, and spoke of his own attempts to introduce Indians into the service in this capacity.

Mr. R. H. Campbell, Director of Forestry, told of the measures taken to interest the Indians of the vicinity of Norway House in the prevention of forest fires.

Mr. Aubrey White, Deputy Minister of Lands and Forests for Ontario, then spoke briefly. He defended the use of college students as fire rangers, claiming that in dealing with parties of sportsmen and campers a young man of education was more capable than the average woodsman or 'lumber-jack.'

Other speakers of the morning were Rev. Dr. Geo. Bryce of Winnipeg; Lt.-Col. J. W. Harkom, of Melbourne, P.Q.; Mr. A. Knechtel, Inspector Dominion Forest Reserves, and Mr. W. H. Berry, Assistant Deputy Surveyor-General for New Brunswick, St. Stephen, N. B.

#### Wednesday Afternoon.

Wednesday afternoon's proceedings were opened with the reading by Dr. Fernow of the Report of the Committee on Forest Fire Legislation. This committee was composed of Dr. Fernow, chairman, and Messrs. Thos. Southworth, of Toronto, W. C. J. Hall, of Quebec, P.Q., Ellwood Wilson, of Grandmere, P.Q., Dr. Judson F. Clark, of Vancouver, B.C., Frank Davison, of Bridgewater, N.S., and G. C. Piché, of Quebec, P.Q.

The committee, the report stated, had collected all the existing forest fire legislation in Canada and most of the United States. They also received expressions of opinion from competent persons and upon these they based their report. They found that while the Dominion and all the provincial governments had passed legislation to protect forests from fire, these laws varied greatly in detail and in efficiency. They reviewed the laws of all the provinces, and having taken all things into consideration they stated that the law of Nova Scotia was probably the most efficient for the conditions there. New Brunswick, Quebec and Ontario had laws which were good in many respects, but they were all primarily designed to protect unorganized territory and they needed to be supplemented by provisions looking to the co-operation of county and township authorities in the organized districts with the officers of the province and the rangers of the lumbermen in the unorganized districts. The laws of the prairie provinces were designed in the first place to stop prairie fires and needed to be very considerably supplemented. In British Columbia and the Dominion, fire protection was largely a matter of executive administration.

The committee reported that legislation to be effective must be carried out by a thorough organization backed up by public opinion. Different sections required different laws and the reason the Nova Scotia system was efficient was because all parts of the province were organized territory. Preventive measures were need-



Dr. B. E. Fernow.

ful, and public opinion must be so aroused that persons guilty of causing fires might be properly punished.

The three main causes of forest fires were railways, settlers and persons, like sportsmen and prospectors, passing through the forest. Regarding railways, safety should be sought in improved equipment of locomotives, clearing of the right of way and patrol. In regard to settlers the first suggestion was an educative campaign. Quebec was congratulated in that the clergy under the direction of the bishops read letters of caution from their pulpits. Times should be fixed in which settlers must burn the slash from their clearing operations and in each case a permit to burn the same should be secured from the fire warden of the district. Regarding those whose business takes them into the woods, it was suggested that persons like tourists and prospectors passing through the woods should not be allowed to start fires for any purpose without having a permit from the proper officer. Such permits should be for a short time only and renewable upon good conduct. To reduce the danger from lumbering operations the report recommended the burning of the slash, while the logging operations were going on, or the 'downing' of tops and branches so that they might lie close to the ground and rapidly decay. Upon the important question of organization the committee report that it should be central and permanent, and should at the same time co-operate with municipalities and timber limit holders. The organisation

should have an experienced head with large discretionary powers, and a body of permanent paid rangers. During the danger season this body should be assisted by additional patrolmen. The country should be divided into inspectoral districts and each officer and patrolman must be held responsible for his unit. The equipment of districts at proper points with lookout stations, trails and telephone lines was recommended.

Dr. E. H. Hall, Secretary of the Society for the Protection of the Adirondacks, New York, outlined the methods adopted in that region, especially oil-burning locomotives and the 'lopping' of tops.

Mr. D. B. Rochester, of Ottawa, severely criticized the provincial government in regard to its ranger system, claiming that many of the present appointees were quite useless, and that experienced woodsmen should be appointed.

Mr. Ellwood Wilson said the lumbermen must protect themselves and provide efficient men. The best results were got from sending the men out in pairs, one a student (preferably a forestry student), the other a woodsman. He advocated the lumbermen forming protective associations, but the government must stand back of the licence-holders, and prosecute offenders responsible for fires.

Mr. A. MacLaurin, President of the Canadian Lumbermen's Association and a Director of the Canadian Forestry Association, criticized the Association for not having done anything, but was corrected by several members, who pointed to the part the Association had in agitating for the regulations under consideration by the Railway Commission.

Mr. N. S. Dunlop spoke in defence of the railways. The C. P. R. spent very large sums in fighting fires, many of which it was not in the least responsible for. For fighting one fire alone they had paid out \$8,000 in wages. Spark arresters in the front of engines, he claimed, were not practicable.

In answer to a question from Dr. Hall he said that not one per cent. of the fires were caused from ashes dropped from the firebox, and in this was corroborated by Lt.-Col. Harkom.

Prof. John Macoun described the organization which he had found on the C. P. R. lines in the Kootenay district for fighting fires along their lines. The people's neglect of fires in the forest was very blameworthy, and often large fires, such as that at Fernie, had come from this neglect. Restrictions should be placed on settlers burning brush. This service should be freed from political control; 'as long as politicians appoint fire-rangers', he said, 'there will be fires.'

Hon. Sydney Fisher defended the Association against the charge of having done nothing, and reminded them that at Quebec in 1911 the Association had made two main requests, first, that the forest reserve on the east slope of the Rockies should be set aside by law, and, second, that the railways should be placed under the control of the Railway Commission in regard to the work of dealing with fires. The first had been accomplished, and the Commission had been given power to summon the railway companies and lay down regulations regarding fires: the railways were to be held responsible for fires along their lines unless they could show that they had used the best and most modern appliances for the control of fires. The Railway Commission were even then engaged in formulating regulations for the control of fires.

Hon. W. A. Charlton strongly urged more generous treatment of the fire protective force. Sending rangers into the woods to have a picnic in the summer time was the best way to get the woods burned up. 'Get more fire-rangers, the best men you can get, pay good wages and give them plenty of money', was his advice. He instanced the case of a British Columbia lumberman of his acquaintance who every spring, of his own accord, burned the debris left in the previous winter's logging operations on his limits as a protection against fire risk. 'The loss of timber in Ontario during the last forty years would pay a great army of fire-rangers for a century', he said.

Mr. J. B. White, Calumet, P. Q., Supt. of Woods Operations of the Riordon Paper Co., questioned the figures given as to the cost of burning debris.

Dr. Fernow replied that they were actual figures given by the jobbers on an operation on an open white pine stand in Minnesota.

Mr. C. R. Pettis, of Albany, N. Y., State Forester, gave fifteen cents per cord as the cost of lopping tops on a pulpwood operation. He spoke of the benefits of the lookout stations they had established in his state and claimed the burning of oil by locomotives greatly lessened the number of fires.

Dr. Pinchot who reached the convention hall during the afternoon session, said that Prof. Macoun had laid his finger on the secret of fighting fires, namely, 'get your men at the fire as soon as possible'. It was impossible to secure adequate fire protection as long as men were appointed for political reasons. As to the cost of lopping tops, he knew it had been done in an operation in spruce timber at a cost of fifteen cents per market (195 board feet). In coniferous timber it was absolutely necessary to get rid of the tops.

Mr. Wm. Power, of Quebec, P.Q., told of

his own experience in installing telephones on his limits and the benefit they had been. He thought it would be worth while for the government to bonus lumbermen for building such lines. The fraudulent taking up of lots by so-called settlers must be put a stop to.

On motion of Dr. Fernow, seconded by Mr. Little, it was resolved to accept the committee's report and continue the committee for the purpose of reporting on organization.

### The Banquet.

On Wednesday evening a banquet was held in the Parliamentary Restaurant, at which about two hundred guests were present. The chair was occupied by the president of the Association, Mr. Chown, at whose right were seated Rt. Hon. R. L. Borden and Mr. Alex. MacLaurin, president of the Canadian Lumbermen's Association, and on his left Rt. Hon. Sir Wilfrid Laurier and Dr. Gifford Pinchot. Others seated at the head table were Hon. G. E. Foster, Mr. Wm. McNeil, Director of the Canadian Lumbermen's Association, Hon. G. H. Perley, Hon. T. W. Crothers, Hon. Sydney Fisher, Sir Frederick Borden, Hon. F. Oliver, Dr. B. E. Fernow, Hon. J. G. Foster, U. S. Consul, Major R. W. Leonard, Chairman N. T. R. Commission; Dr. Rothrock, of Pennsylvania, Dr. E. H. Hall, of New York, Mr. W. R. Brown, of New Hampshire, Hon. Speaker Sproule, Mr. Haughton Lennox, M.P., Hon. J. A. Matheson, Premier of Prince Edward Island. The vice-chair was occupied (in the unavoidable absence of Senator Edwards) by Mr. H. M. Price, and at his table were seated Messrs. N. Curry, President of the Canadian Manufacturers Association, Geo. Burn, General Manager Bank of Ottawa, Dr. F. C. Harrison, President of Macdonald College, Prof. W. J. Black, president Manitoba Agricultural College, Aubrey White, Deputy Minister of Lands and Forests for Ontario, Jas. White, Secretary Commission of Conservation, Dr. J. W. Robertson, Chairman Commission on Technical Education, Rev. Dr. Geo. Bryce, Member of the Commission on Technical Education, Wm. Little, Wm. Power, M.P., Lt.-Col. Harkom, E. Stewart, R. H. Campbell, Senator Bostock, Wm. Pearce, S. Kydd, of the Montreal Gazette, H. A. Reynolds, Secretary of the Massachusetts Forestry Association, and N. S. Dunlop, of the C. P. R.

The toast to 'The King' was proposed by the chairman, and honored in the usual manner.

The toast to 'The Parliament of Canada' was proposed by Hon. Sydney Fisher, who, in opening, congratulated the present parliament on having brought down a larger appropriation for forestry than had ever been provided before. He enlarged upon

the importance of the reserve made of the eastern slope of the Rocky Mountains, and commended to the parliament of Canada the figures given that morning by Mr. Campbell, Director of Forestry.

Rt. Hon. R. L. Borden was the first to reply. In opening he made appreciative reference to Hon. Mr. Fisher's faithful work as Minister of Agriculture. Mr. Borden referred again to his expression of the morning, that conservation consisted in the wise and prudent utilization of the country's natural resources, having regard to the fact that they were the property, not alone of those living to-day, but also of both those who had passed away and those who were to come.

After a brief complimentary reference to Dr. Pinchot, Mr. Borden expressed his gratification in realizing that Canada had started the work of conservation earlier in her national history than had the United States. The work was only beginning, as was shown by the difficulty experienced in obtaining reliable information in regard to the natural resources both of Canada and the United States. He suggested that Canada should immediately begin a stock-taking of her great natural resources.

Sir Wilfrid Laurier, after some humorous references to the changed positions in Parliament of himself and Mr. Borden, referred to the unanimity shown by both parties in putting through the bill creating the Commission of Conservation. The idea of the commission had come to them from their neighbors of the United States, and, among them, Dr. Pinchot had been foremost in pressing the idea. He was welcome with them on that occasion, and would be welcome if he decided to live permanently in Canada. Sir Wilfrid paid a high tribute to the chairman of Canada's Commission, Hon. Clifford Sifton. He (Sir Wilfrid) hoped the Forestry Association would become a permanent institution. No life was more pleasant, he thought, than that of the lumberman.

Mr. H. M. Price proposed the toast of 'Our Guests'. He referred especially to Dr. Pinchot, and alluded to a passage from Mr. O. W. Price's book, 'The Land We Live In', to the effect that the natural resources of the country were resources in which a man's children were even more interested than he himself. He advocated the prosecution of forestry instruction among the boys and girls of Canada.

Dr. Pinchot, in reply to the toast, after thanking the convention for their compliment, gave an inspiring speech, clearly showing how forestry had branched out into the conservation movement, and that again into an alliance with the forces fighting against child labor, unfair conditions of work in factories, poisonous foods and many other abuses. Forestry began



with trying to make the best use of the forests, both for the present and the future, for the welfare of the nation. The conservation movement simply included in this formula, along with the forests, the nation's other resources. Dr. Pinchot gave instances of woodlands and other lands fraudulently appropriated by private concerns in the United States. They found they had to ask two questions: not only 'Shall the resources continue to exist?' but also 'For whose benefit shall these resources be used?' Then they struck the question of monopoly, and found themselves allied with some of the forces mentioned, with whom they at first seemed to have no relation. 'There we came to a question which at first sight is not related to conservation at all, the question of monopoly, because we had discovered, when we came to work at these matters, that every monopoly of every kind, when you follow it down to its source, is based somewhere on the control of a natural resource or a natural condition.' The moment they began to act in conservation they found themselves confronted by the political power of some particular interest to whose advantage it was to prevent the active execution of the conservation policy, or, in other words, by monopoly maintained through politics by a few men for their private advantage. It was at this point that they saw their common interest with the other forces. The whole question of conservation could be reduced to the elimination of waste, not only of waste of forests, but of waste of the nation's property when a water-power was grabbed by a special interest, of waste through strikes and lock-outs, of waste of human life and all that goes to make life worth living. All these were waste to the nation, waste of the power to make the nation better.

Hon. Geo. E. Foster then proposed the toast to 'The Lumbermen'. In opening he expressed his appreciation of the conservation principles as laid down by Dr. Pinchot. The bounds of conservation, he thought, were not simply national, but world-wide. Turning then to the lumbermen themselves, he thought the day of the 'predatory' lumberman, who looked on the forest as something to be got out of the way, was practically passed, and that he was giving way to the lumberman of foresight. While the present generation had a right to the use of the nation's present resources, they had no right to devastate or destroy. The 'predatory' lumberman should be disciplined by his fellow lumbermen and by the governments. In closing Mr. Foster endorsed the idea of more education of the boys and girls of to-day along the lines of conservation.

Mr. Alex. MacLaurin, after thanking the convention for the toast, on behalf of

the lumbermen, asked their assistance in having the Quebec forest reserves set aside by act of the legislature.

Mr. Wm. McNeil also responded on the lumbermen's behalf. He drew the attention of the audience to the legislation at the moment before the British Columbia government, putting into statute form their policy of forest preservation and conservation. Mr. O. W. Price, an associate of Dr. Pinchot's, was their consulting forester, and they were also to have the benefit of Mr. Pinchot's advice. Special provision was being made in the act for fire protection.

Dr. B. E. Fernow then briefly proposed the toast of 'The Forest Services', in a brief and witty speech, in the course of which he compared the forester to a phagocyte, the forester being ready to correct bad conditions in a lumbering business as a phagocyte corrects bad conditions in the blood.

Mr. R. H. Campbell, in replying, pointed out the fact that Canada's supply of hardwoods had been depleted to such an extent that these woods had now to be imported from the United States, and that the white pine, inside of fifty years, might become a curiosity in Canada. The time had come when Canada must make a special study of her forests and must have trained men to make this study, study not only of special instances, but of general conditions, so that a proper basis could be formulated on which their policies and plans could be founded. The general public, too, must be educated so as to get to know and sympathize with the efforts of the forest services. Canada was democratic and would remain democratic, and the people must be educated to look to the future.

Mr. Aubrey White also responded to the toast. He congratulated the Association on the success it had achieved in creating and molding public opinion. He described the conditions in the province of Ontario and showed what steps were being taken by the government to conserve the resources of the province. He referred to his own experience in attending the Forestry Conference at Washington in 1905, and the influence of ex-President Roosevelt in advancing the conservation idea.

Sir Frederick Borden then briefly proposed the toast to 'The Allied Interests'. He expressed his pleasure in having heard Dr. Pinchot, and in knowing that the people, as a whole, were taking such interest in conservation questions, and that the interest so taken was world-wide.

Mr. Nathaniel Curry replied for the Manufacturers. To illustrate the interest taken by the manufacturers, he related an experience of his own firm, who, in ordering certain lumber for the manufacture of

their cars, were forced to go to the southern states for most of it, and also send a man to follow the order up. He thought the forestry movement should have been started years ago, and criticized the government in regard to its attitude to forest fires, especially along the line of the Intercolonial railway. His efforts to get the Intercolonial to assist in the protection of his lands from fire had been without result, and as a result they had burned up about half of his timber. In the Maritime Provinces the railways were the most destructive agency, then the fishermen and then the settlers clearing land. He had himself ordered trees from Germany and was about to try reforestation work.

Mr. N. S. Dunlop replied on behalf of the railways. He believed the C. P. R. would co-operate in any measures that would tend to keep down the fires along the railways. He had been himself trying to instil ideas of conservation into the employees of the C. P. R.

The singing of the National Anthem then closed the banquet.

#### Thursday Morning.

The session of Thursday opened at ten o'clock.

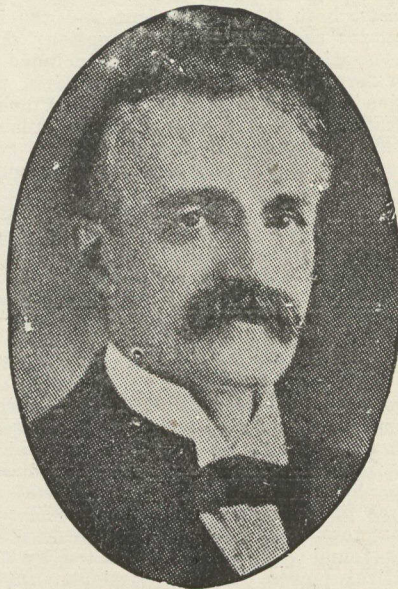
Mr. N. M. Ross, Chief of the Tree Planting Division of the Forestry Branch, opened the program with a short account of the work done by the Forestry Branch in the free distribution of trees to the farmers on the prairies. He explained the regulations and touched on the results of the distribution. He favored the establishment of a Dominion laboratory especially with a view to the conducting experiments in wood preservation.

Mr. R. D. Prettie, Chief Forestry Inspector for the C. P. R., touched on the question of the work being done by the C. P. R., especially at the timber preservation plant connected with that corporation.

Dr. C. Gordon Hewitt outlined the work being carried on by the Department of Entomology of the Central Experimental Farm, with special reference to the Larch Sawfly and the Spruce Budworm.

#### Mr. Gifford Pinchot's Address.

Dr. Pinchot was received with hearty applause. In the commencement of his address he referred briefly to the anomalous position which the U. S. Forest Service occupied before 1905, when the forests were all administered by the Department of the Interior, while the foresters were all in the Department of Agriculture. Prior to the change political influence had played a considerable part in appointments to the executive force controlling forests.



Mr. Gifford Pinchot.

The first mistake they had thus made was to allow political considerations to enter into appointments. Under President Roosevelt, however, entrance to the Forest Service was made subject to passing an examination.

The first principle on which a successful forest service must be based was that of absolute freedom from political control in the making of appointments—a point he had been glad to hear the Premier favor on the preceding evening.

The second principle to be followed in forming an efficient service was that the men must be trained. The most practical men in the end were those who came into the service with scientific training and then got the practical experience.

The third principle was that the administration of the forest must be given enough money. Even yet the U. S. Forest Service had not obtained an appropriation sufficiently large to carry out necessary work.

In the United States they had to meet a demand for the surrender to the states in the west of not only the forests, but also the water-powers within their boundaries. Men with offices in New York and Chicago were especially anxious that the natural resources of states such as Nevada, Oregon and Colorado should be turned over to state control. From the conservationist standpoint federal control was preferable because the smaller legislatures were more easily controlled by the special interests. 'Federal control of national resources

seems to me to be absolutely essential in the work you are undertaking.'

In organizing a forest, fire protection must be the first aim of all, and the great thing was to make the forest accessible with trails, telephone lines and other means of communication. The fundamental principles on which an efficient forest force was to be built up were thus four in number: (1) No politics; (2) Trained men; (3) Enough money; (4) Federal control.

In the organization of such a force the line of responsibility from man to man must be absolutely clear, and each man must know the extent of his responsibility.

Young men could successfully bear three or four times as much responsibility as one would expect of them.

Then the man must be 'given his head.' An organization where a man simply worked under orders, not even signing the letters he wrote, might ruin the man for high-class executive work. An organization built on democratic lines such as indicated would get twice as much work from men as the more rigid one, and could do field work that could not be done at all along other lines.

Local interests must be given a chance in handling their own forests, in some such way as the Grazing Advisory Boards assisted in the Western States. They must understand, too, that the forests are being handled in their interests. In this way local sympathy is gained.

Delay in dealing with matters of administration must also be avoided.

Antagonism between office and field force must be prevented. As much work as possible must be taken from the office and given to the field men. The U. S. Forest Service exists, not for the office end, but for the field end. In the U. S. Forest Service men were frequently given a change from the one class of work to the other. 'We have a definite order that the recommendation of the field man must not be turned down unless affirmative reasons be given. . . . You absolutely must have the field man know that the man in the office is ready to stand behind him, even to the extent of losing his job.'

A forest service, to be efficient, must combine research work with its executive work. 'The reason the (U. S.) Forest Service exists to-day in the face of many attacks from its enemies is that it succeeded in building up a public sentiment so strong that the men who wanted to destroy the service could not fight that sentiment.' Publicity was absolutely essential, and it should be a regular part of the daily duty of the service to let the public know what is going on.

Hon. Martin Burrell, Dominion Minister of Agriculture, expressed his pleasure in hearing Mr. Pinchot's speech. He referred to the immense loss sustained in his own province, British Columbia, by forest fires, and expressed his appreciation of the great value of the preservation of the forests of the province for the sake of the water-powers, and, in the dry belt, for irrigation.

Mr. R. H. Campbell remarked on the loyalty of the staff of the United States Forest Service and expressed his confidence that Canada could build up as good a service. He emphasized the value of the trained men (such as the Faculty of Forestry of the University of Toronto was turning out) because of their wider outlook. A much larger appropriation than the one now given on Dominion lands in Canada (less than one cent per acre) was urgently heeded.

Mr. E. Stewart agreed with Mr. Pinchot that young men employed in forestry should have enough responsibility to keep them interested.

Mr. E. A. Sterling, Forester for the Pennsylvania Railroad, then gave his paper on 'The Attitude of the Railway toward Forest Fires', a synopsis of which is as follows:—

Although doubtless over-estimated, the number of fires caused by railway locomotives is large, therefore the attitude of the railways toward fires and the possibilities of reducing this source of danger are important. While for many years rail-



Mr. E. A. Sterling.

ways showed little interest in this subject they in this erred in common with all other interests from the governments down to the woodlot owner.

Practically all accomplishments in forestry in the United States and Canada have taken place in ten years and the most important within the last five years. Our forests are still far from safe, but governments and individuals are now active, and another ten years should remove the fire menace.

There are various reasons why railways have been too frequently the cause of forest fires. No spark arrester has yet been designed which will check all sparks and yet give the locomotive free draft. Logically all inflammable material should be removed from the right of way, but this is very difficult, especially in new railways through forests. The right of way is too narrow for a safe fire belt even if cleared to mineral soil.

There is no reason for the belief that railways deliberately permit fires to start. They are the heaviest losers when forests burn. They lose freight, and tourist travel, and are besieged with damage claims. Under the impetus of the conservation movement in the United States, the federal and state governments, the timber owners and railways are now co-operating to reduce this loss.

The most effective methods are the removal of debris from the right of way, regular patrol, systematic reporting of fires by train crews, trackmen, etc., the use of oilburning locomotives, the keeping of ash-pans and spark-arresters in good condition. The clearing of land adjacent to the right of way with a fire guard on each side 200 feet from the tracks has been very successful.

During 1911 only one fire was reported as having been caused by the Pennsylvania Railroad Company, and this was found to have occurred beyond the range of sparks.

Mr. Sterling closed by quoting the resolutions of the Forest Fire Conference held in Portland, Oregon, in December, 1911. These recommended that all debris be cleared from rights of way, a track patrol both night and day during dry seasons; increasing of efficiency of spark arresters and the use of oil-burning locomotives in forest districts where practicable; that no ashes be dumped from trains in motion; that the furnishing of men from section crews to fight fires be expedited; that fires be reported by train crews at the first station passed; that there be co-operation between governments and railways both in preventing and fighting fires, and also in securing data as to conditions and as to best methods of meeting the problem in each locality.

Prof. John Macoun suggested the use of

brine as a preservative for wood, and Mr. Sterling observed that one United States railway company had some thousands of ties in pickle in Great Salt Lake.

Mr. G. C. Piché, Chief Forestry Engineer of the Quebec Department of Lands and Forests, then spoke briefly. He began by expressing the regret of Hon. J. Allard, Minister of Lands and Forests of Quebec, at his inability to be present at the convention. Mr. Piché then touched on different lines on which the province was making progress in forestry matters. In their province the re-organization of the forest service had been followed by the establishment of a forest school, and they were now going on to further measures. One of these was a combined forest and water-power service. Progress had been made in the creation of township forest reserves, which now numbered eleven, with a total area of 120,000 acres, and which they hoped soon to extend. Reforestation was also engaging their attention and next spring they hoped to start that work at Lachute and possibly at Berthier. Reduction of waste in methods of lumbering was also engaging their attention.

Mr. Ellwood Wilson urged the need for the establishment of a school for forest rangers, which would, in the course of a few weeks, give pupils some elementary notion of forestry along with matters involved in their daily routine, such as the management of canoes, etc.

Mayor Hopewell, of Ottawa, and Mr. R. D. Prettie, of the C. P. R. forestry department, were also to have spoken, but were detained.

The session adjourned at 12.30 p.m.

#### Thursday Afternoon.

The first business taken up at Thursday afternoon's session was the report of the nominating committee, which recommended the following as office-holders for the year 1910-11:—

*Patron*—H.R.H. the Governor General.  
*Honorary President*—Rt. Hon. R. L. Borden.  
*Honorary Past President*—Rt. Hon. Sir Wilfrid Laurier.  
*President*—John Hendry, Esq., Vancouver.  
*Vice-President*—Hon. W. A. Charlton, Toronto.

#### Territorial Vice-Presidents.

Ont.—Hon. W. H. Hearst.  
 Que.—Hon. Jules Allard.  
 N.B.—Hon. J. K. Flemming.  
 N.S.—Hon. G. H. Murray.  
 Man.—Hon. R. P. Roblin.  
 P.E.I.—Hon. J. A. Matheson.  
 Sask.—His Honor G. W. Brown.  
 Alta.—Hon. A. L. Sifton.  
 B.C.—Hon. W. R. Ross.  
 Yukon—Geo. Black, Commissioner.  
 Mackenzie—F. D. Wilson.  
 Keewatin—His Honor D. C. Cameron.  
 Ungava—His Grace, Mgr. Bruchesi, Archbishop of Montreal.

## Board of Directors.

Wm. Little.  
 Hiram Robinson.  
 Aubrey White.  
 E. Stewart.  
 H. M. Price.  
 W. B. Snowball.  
 Thomas Southworth.  
 Hon. W. C. Edwards.  
 Geo. Y. Chown.  
 Hon. Sydney Fisher.  
 R. H. Campbell.  
 J. B. Miller.  
 Gordon C. Edwards.  
 Dr. B. E. Fernow.  
 Ellwood Wilson.  
 Senator Bostock.  
 F. C. Whitman.  
 G. C. Piché.  
 Alex. MacLaurin.  
 Carl Riordon.  
 Mgr. Mathieu, Bishop of Regina.  
 A. P. Stevenson.  
 Wm. Pearce.  
 Wm. Power.  
 C. E. E. Ussher.  
 Denis Murphy.  
 C. Jackson Booth.  
 Wm. Price.  
 J. W. Harkom.  
 A. S. Goodeve, M.P.  
 W. C. J. Hall.  
 J. S. Dennis.  
*Secretary*—James Lawler.  
*Treasurer*—Miss M. Robinson.  
*Asst. Secretary*—F. W. H. Jacombe.

On motion of Mr. Aubrey White, con-  
 vener, seconded by Lt.-Col. Harkom, the  
 report was adopted and the above declar-  
 ed duly elected.

The Resolutions Committee then pre-  
 sented the following resolutions:—

*Resolved*, that this Association re-affirms  
 its attitude in favor of the inspection of  
 the public domain and the inclusion in for-  
 est reserves of lands unsuited for agricul-  
 ture or where the forests are required for  
 the protection of the watersheds, and urges  
 on the federal and provincial governments  
 that such a policy be carried out at the  
 earliest possible date; and that when such  
 reservations are created they should be  
 made of a permanent nature by Act of  
 Parliament and adequate provision should  
 be made for a progressive administration  
 on permanent lines.

*Resolved*, that this Convention has noted  
 with pleasure that the Parliament of the  
 Dominion has during the past year enacted  
 legislation which provides for a fire patrol  
 along lines of railway, under regulations to  
 be formulated by the Board of Railway  
 Commissioners; and also an amendment ren-  
 dering Railway Companies liable for damage  
 to any property, including timber, that may  
 be destroyed through the agency of such  
 companies.

*Whereas*, efficiency in the adminis-  
 tration of the forests of Canada, which  
 are one of the greatest of the national as-  
 sets, can be obtained only by adopting a  
 permanent policy carried out by a staff ap-  
 pointed on the grounds of special fitness

for the positions which they are to fill, and  
 removable only on grounds of inefficiency.

*Therefore, Resolved*, that this Association  
 urges on the federal and provincial govern-  
 ments the necessity for providing a system  
 of examinations to test the qualifications of  
 appointees and of making appointments per-  
 manent during good behaviour, and that  
 in the case of the federal government for  
 this purpose appointments should be plac-  
 ed in the hands of the Civil Service Com-  
 mission.

*Whereas*, the history of forest manage-  
 ment in countries where it has been highly  
 developed demonstrates that the profits to  
 the state from the forest are directly pro-  
 portional to the expenditure for efficient  
 management.

*And, whereas*, the expenditure on forest  
 management in Canada is on the average  
 less than one cent per acre of the forest  
 lands, while the average in other countries  
 ranges from two cents per acre in the  
 United States to six cents per acre in  
 India, nine cents per acre in France, and  
 \$1.90 per acre in Prussia, and whereas effi-  
 ciency of administration will require a much  
 larger expenditure than is yet being made  
 in Canada.

*Therefore, Resolved*, that the Canadian  
 Forestry Association in convention assem-  
 bled urge upon the federal government and  
 the governments of the provinces the neces-  
 sity for providing larger appropriations so  
 as to ensure efficiency of management and  
 increasing profitableness from the forests of  
 Canada.

*Resolved*, that this Association notes with  
 satisfaction the passage of an Act by the  
 Legislature of the Province of Ontario, em-  
 powering municipalities to take up waste  
 lands for the purpose of reforestation, and  
 expresses the hope that the policy of waste  
 land planting in the older provinces be fur-  
 ther developed and placed on a practical  
 basis.

*Resolved*, that this Association impress  
 upon the government the necessity of build-  
 ing, equipping and maintaining in conjunc-  
 tion with the Forestry Branch an experi-  
 mental laboratory for testing and investi-  
 gating the physical and mechanical prop-  
 erties of Canadian woods with a view to  
 extending the possibilities of their use; for  
 experimenting with the preservative treat-  
 ment of timber against decay with a view  
 to making possible the use of non-durable  
 Canadian woods; for experimenting in the  
 manufacture of wood pulp and paper from  
 the less valuable Canadian woods and dif-  
 ferent grades of wood waste which might  
 be made available for pulp and paper man-  
 ufacture.

*Resolved*, that this Association deprecates  
 the practice of exporting in large quanti-  
 ties Christmas Trees of spruce and balsam

and recommends legislation to prevent such practice.

*Resolved*, that the Canadian Forestry Association, in convention assembled, wishes to place on record its deep sense of the loss which has been sustained by the Association and the cause of forestry in general by the untimely death of the late E. G. Joly de Lotbiniere, a past president of the Association, and who, following in the footsteps of his distinguished father, was one of the most active and faithful advocates of forest protection in Canada and a strong and earnest supporter of the work of this Association. The services of the late Mr. Joly de Lotbiniere to forest conservation cannot be overestimated. By voice and pen and by the publication of his own practical studies in the forests he did important work in the campaign of public education, and his enthusiasm and kindly help were a great incentive and support to those who had the pleasure of working with him in the great cause which he had so much at heart, and his passing from our midst leaves a keen feeling of personal loss. To his widow and family we wish to convey our heartfelt sympathy with them in their bereavement,

And that the Secretary be instructed to transmit a copy of this resolution to the family of the late Mr. Joly de Lotbiniere.

*Resolved*, that the thanks of this Association be tendered to those who assisted in making the convention a success, and particularly to the Rt. Hon. R. L. Borden, Rt. Hon. Sir W. Laurier and Mr. Gifford Pinchot.

*Resolved*, that the Canadian Forestry Association desires most respectfully to convey its thanks to His Royal Highness, the Duke of Connaught, for the gracious extension of his patronage to the Association.

*Resolved*, that the thanks of the Canadian Forestry Association be tendered the Dominion Government for its continued assistance to the Association in the grant of \$2,000 per year; also to the Government of Ontario for its grant of \$300 to the Governments of Quebec and British Columbia for their grants of \$200 each, and to the Government of New Brunswick for its grant of \$100; and that the Secretary be instructed to endeavor to secure a grant from the other timber owning provinces of the Dominion.

*Resolved*, that the thanks of the Canadian Forestry Association be conveyed to the General Managers of the Bank of Montreal, Bank of Commerce, Merchants Bank, Molsons Bank, Bank of British North America, Imperial Bank, Royal Bank, Traders Bank, Quebec Bank, Bank of New Brunswick and Bank of Hamilton, for their continued assistance by making their Branch Managers, or such of them as reside in lumber districts, members of this Asso-

ciation. This assistance is not confined to the amount received, important as that is, but it also introduces the subject of Forestry into communities where it would not otherwise have a footing. The Secretary is instructed to bring this matter before other Banks, particularly those largely interested in timber districts, that this plan may be further extended.

*Resolved*, that the thanks of the Canadian Forestry Association be tendered to the railways of Canada for their kindness in granting special rates to the convention.

*Resolved*, that the thanks of the Canadian Forestry Association be tendered to the Press of Canada for its continued support of forest propaganda in publishing extracts from the bulletins and other literature sent out, and in giving prominence to the meetings of the Association.

*Resolved*, that the Association desires to express its appreciation of the faithful and efficient work of the Secretary and staff of the Association.

*Resolved*, that, in accordance with the notice duly given, Clause VII of the Constitution be changed to read as follows:—VII. The annual meeting of the Association shall be held during the month of February in the City of Ottawa, unless otherwise determined by the Executive Committee of the Association, and a notice of one month of the date selected shall be given to each member by the Secretary.

*Resolved*, that the members of the Committee on Forest Fire Legislation be thanked for their report, that the report be adopted, and that the Committee be continued and requested to work out a scheme of organization.

*Resolved*, that the minutes of the last meeting, having already been printed and published in the Association publications, be taken as read.

*Resolved*, that the report of the Treasurer, as audited, be received and adopted, and that the accounts therein are hereby ordered to be paid.

*Resolved*, that the Auditors, Messrs. Hawkins and Clendinnen, be paid the sum of \$10 each and thanked for their services, and requested to act for the year 1912.

*Resolved*, that an honorarium of \$100 be paid to the Treasurer for her services.

It was then moved by Lt.-Col. Harkom, seconded by Mr. Stewart, that the thanks of the Association be tendered to our retiring President for the able manner in which he has conducted its affairs during his term of office.

This was passed by a standing vote. The retiring President thanked the members for their kind resolution, but said that anything he had done had indeed been a labor of love.

Mr. E. Stewart then read his paper on 'The Aims and Objects of the Canadian Forestry Association.'

Mr. Stewart pointed out the objects for which the Association had been formed; it was intended to be, first, educative, and, second, advisory. No administrative work had been contemplated, and, if the association had engaged in controversial topics, it would have impaired its influence. Its strength lay largely in the fact that it was entirely non-political.

The Association's first aim was to arouse public interest in forestry. One result was seen in the fact that opposition to forestry appropriations had died away. By conventions and literature much interest in forestry had been awakened in the public mind and the public of Canada had much need of awakening to the problems of forestry. The Association had done much good and advanced forestry interests by its recommendations to the various governments. One point in which the Association might still do much good work was in inducing the Dominion government to distribute in other countries fuller information regarding the different species of Canadian woods and their qualities. The Association had been particularly fortunate in its Patrons. Another respect in which much success had been attained was in securing the co-operation of the lumbermen.

Mr. Chown wanted more progressive measures, and thought the Association should consider the employment of a trained forester.

Lt.-Col. Harkom agreed with Mr. Stewart, that the Association should be only advisory, not executive.

Mr. J. A. Gripton, of Toronto, suggested the formation of commercial museums and bureaus of information.

Dr. C. D. Howe, of the Faculty of Forestry, University of Toronto, urged the need of further educational propaganda, especially in the lower grades of public schools.

Dr. A. Blue then read a short paper on 'Maple Sugar as a By-product of the Forest'.

The convention then adjourned.

#### LETTERS OF REGRET.

*Following are extracts from some of the letters of regret:—*

John Hendry, Vice-President Canadian Forestry Association, Vancouver, B.C., (now in Europe)—"I am leaving London on Tuesday next for about five or six weeks, but have left instructions for any mail to be

forwarded to me. I am very sorry I cannot attend the joint meeting and banquet, but hope the meeting will be successful and the banquet enjoyable."

Sir Edmund Walker, President The Canadian Bank of Commerce, Toronto.—"I have your letter of 12th instant, and I regret exceedingly that I have engagements which render it impossible for me to be present at the meetings of the Canadian Forestry Association on the 7th and 8th February. I have been Honorary President for many years of the Mendelssohn Choir, and its annual concerts are held in the week which includes the dates referred to."

Hon. Clifford Sifton, Chairman Commission of Conservation, Ottawa. — "I very much regret that I shall be compelled to be away from Ottawa at the time mentioned, being called away by important engagements. It is a matter of great regret to me that I cannot participate in the proceedings of your convention, and be present at the banquet. I trust that the efforts which your Association has been making in past years will be continued with unremitting vigor in the future, and that the tangible results which we already see will be multiplied as time goes on. With best wishes to the President, Directors and Members of the Association."

Henry S Graves, United States Forester, Washington, D.C.—"I am exceedingly sorry to have to advise you that it is necessary for me to leave for the Pacific Coast at the end of this week to attend a series of important meetings of Forest officers, which will preclude the possibility of my returning in time to attend your convention in February. I am particularly sorry to have to send you this unfavorable reply as I appreciate the situation in the Dominion and should like to help in every way I can."

Hon. Mr. Justice R. M. Meredith, Court of Appel, Ontario.—"The task which the Association has undertaken is a great one, with vast opportunity for doing good; and so it should have, and as I am sure has, the good will and best wishes of everyone. Reckless waste and wilful destruction of the natural forests of this province have caused incalculable loss; but nature is a great repairer and restorer even of forests, as even in my time has been proved in a number of instances; so, with such associations as yours, and present day enlightenment on the subject, much better things in these respects may be said to be in sight."

Most Rev. S. P. Matheson, D.D., Archbishop of Rupert's Land, and Primate of the Anglican Church in Canada, Chancellor of the University of Manitoba, Winnipeg.—"It was very kind of the Canadian Forestry Association to ask me to their banquet and also to the annual meeting. It

would give me the very greatest interest and pleasure to attend both, but I fear that I cannot get away at this season of the year. The preservation of our Canadian forests and the spreading of trees on our prairies commend themselves to me very strongly indeed. In fact, some of my farmer friends in the country think that I am a crank on the subject. I am always exhorting them about the matter. I shall be interested in hearing of the results of the meeting. Kindly convey to the Association my regret at not being able to be present."

J. S. Willison, Esq., Editor-in-Chief *The News*, Toronto.—"It will be quite impossible for me to leave Toronto during next week. I should like to attend the sessions of the Association, and can only hope that at some future time I may have the privilege of doing so."

J. S. Brierly, Esq., President The Herald Company, Montreal.—"I regret very much to say that pressing business engagements will prevent my being present, as I appreciate very much the work your Association is doing for Canada, and I would like very much to have the opportunity of testifying to that appreciation by being with you on Feb. 7."

Sir William Whyte, Vice-President Canadian Pacific Railway, Winnipeg.—"I expect to be in the South at that time, therefore will be unable to be present. I regret this very much, as I should like to listen to the able addresses that will, no doubt, be delivered on the occasion. I consider the question of reforestation of very great importance to the Dominion at large. If the demolition of our forests is permitted to go on, without any effort being made towards reforestation, the streams will cease to flow and a deal of the land that is now productive will become semi-arid. I sincerely hope that the addresses delivered at the banquet will be the means of causing the Federal Government, also the provincial governments to take immediate action towards introducing and putting into operation a proper system of reforestation."

David McNicoll, Vice-President Canadian Pacific Railway, Montreal.—"There is a somewhat prevalent opinion that the railways are forest destroyers, but that is really very far from the truth. We have spent enormous sums of money in clearing our line and we watch the whole subject very closely, and I am satisfied if we could get those owning the land adjacent to ours to give the question a little attention, we would hear less of fires."

Hon. W. C. Grimmer, Attorney General of New Brunswick.—"I do not intend to cease my efforts in connection with forestry though I have given up charge of the Crown Lands in the Province of New Brunswick, but

will endeavor to keep in touch with this industry and with our Crown Lands in a very intimate degree."

*Note.*—Hon. Mr. Grimmer has recently exchanged the portfolio of Surveyor General for that of Attorney General.

#### UNABLE TO BE PRESENT.

Among those who sent letters of regret were the following:—

- Allard, Hon. J., Minister of Lands and Forests, Quebec.  
 Atkinson, J. E., Editor *Star*, Toronto.  
 Baker, J. Fred., M.F., Professor of Forestry, Michigan Agricultural College, East Lansing, Mich.  
 Balfour, C. H., General Manager Union Bank of Canada, Quebec.  
 Bass, Hon. Robert P., Governor of New Hampshire, President of American Forestry Association.  
 Bourassa, Henri, M.P.P., Montreal.  
 Clouston, Sir Edward, Vice-President Bank of Montreal.  
 Cochrane, Hon. F., Minister of Railways, Canada.  
 Conklin, Hon. R. S., Commissioner of Forestry for Pennsylvania.  
 Creelman, Dr. G. C., President Ontario Agricultural College, Guelph.  
 Doherty, Hon. C. J., Minister of Justice, Canada.  
 Dougall, J. R., Editor *Witness*, Montreal.  
 Edwards, Hon. W. C., Ottawa.  
 Elliott, H. G., Gen. Passenger Agent, Grand Trunk Ry.  
 Elliott, James, General Manager Molsons Bank, Montreal.  
 Falconer, Dr. R. A., President University of Toronto.  
 Flemming, Hon. J. K., Premier of New Brunswick, Fredericton.  
 Gordon, Rev. Dr., Prin. of Queen's University.  
 Gosselin, Rev. A. E., Rector, Laval University, Quebec.  
 Graham, Sir Hugh, Montreal.  
 Graves, H. S., United States Forester, Washington, D.C.  
 Grimmer, Hon. W. C. H., Attorney General, Fredericton, New Brunswick.  
 Hanna, D. B., Third Vice-President Canadian Northern Railway, Toronto.  
 Hazen, Hon. J. D., Minister of Marine, Canada.  
 Hearst, Hon. W. H., Minister of Lands, Forests and Mines, Ontario.  
 Hebden, E. T., General Manager Merchants' Bank, Montreal, Que.  
 Hirst, E. C., State Forester, New Hampshire.  
 Hughes, Col. the Hon. S., Minister of Militia, Canada.  
 Kemp, Hon. A. E., Ottawa.  
 Lindquist, E., Acting Swedish Consul for Canada, Montreal.  
 Lougheed, Hon. J. A., Ottawa.  
 Macdonald, Dr. J. A., Editor *The Globe*, Toronto.  
 Mackay, J. F., General Manager *The Globe*, Member of Commission of Conservation, Toronto.  
 Mackinnon, James, General Manager, Eastern Townships Bank, Sherbrooke, Que.  
 McNicoll, David, Vice-President Canadian Pacific Railway.  
 Monk, Hon. F. D., Minister of Public Works, Canada.  
 Motherwell, Hon. W. R., Minister of Agriculture for Saskatchewan.  
 Murray, Hon. G. H., Premier of Nova Scotia.  
 Nantel, Hon. W. B., Minister of Inland Revenue, Canada.  
 Pease, E. L., General Manager Royal Bank, Montreal.  
 Pelletier, Hon. L. P., Postmaster General, Canada.  
 Peterson, Dr. W., President of McGill University.



- Reid, Hon. J. D., Minister of Customs, Canada.  
 Rhodes, J. E., Secy. Weyerhaeuser Lumber Co., St. Paul, Minn.  
 Roblin, Hon. R. P., Premier of Manitoba, Winnipeg.  
 Roche, Hon. W. J., Secretary of State, Canada.  
 Rogers, Hon. Robert, Minister of the Interior, Canada.  
 Roosevelt, Hon. Theodore, New York City.  
 Ross, P. D., Editor *The Journal*, Ottawa.  
 Ross, Hon. W. R., Minister of Lands, British Columbia, Victoria, B.C.  
 Roth, Dr. Filibert, Professor of Forestry, University of Michigan.  
 Rowley, W. H., President E. B. Eddy Co.  
 Roy, Rev. Dr. A. B., Rector University of Ottawa.  
 Rupert's Land, Archbishop of, and Primate of Anglican Church in Canada, (Dr. Matheson).  
 Shaw, G. H., General Traffic Manager, Canadian Northern Railway, Toronto.  
 Sifton, Hon. Arthur L., Premier of Alberta.  
 Sifton, Hon. Clifford, Chairman Commission of Conservation.  
 Smith, E. Norman, Editor *Free Press*, Ottawa.  
 Snowball, W. B., Past Pres. Canadian Forestry Assn., Chatham, N.B.  
 Southam, W. M., Editor *The Citizen*, Ottawa.  
 Southworth, Thomas, Vice-Pres. Deloro Mining & Reduction Co., ex-Superintendent of Forestry and Colonization for Ontario, Toronto, Past President Canadian Forestry Association.  
 Stevenson, B. B., General Manager, Quebec Bank, Quebec.  
 Stikeman, H., General Manager, Bank of British North America, Montreal.  
 Strathy, Stuart, General Manager, Traders' Bank, Toronto.  
 Tarte, L. J., President *La Patrie*, Montreal.  
 Toumey, Prof. J. W., Director Yale University Forest School.  
 Turnbull, J., General Manager, Bank of Hamilton, Hamilton.  
 Wainwright, Wm., Vice-President Grand Trunk Railway.  
 Walker, Sir Edmund, President Canadian Bank of Commerce, Toronto.  
 White, Hon. W. T., Minister of Finance.  
 Whitman, F. C., Lumberman and Director C.F.A., Annapolis Royal, N.S.  
 Wilkie, D. R., General Manager Imperial Bank of Canada.  
 Willison, J. S., Editor-in-Chief *The News*, Toronto.  
 Whyte, Sir William, Vice-President Canadian Pacific Railway.

#### NAMES OF THOSE PRESENT.

Explanation of terms: F.E., Forest Engineer; M.F., Master of Forestry; M.S.F., Master Science of Forestry; B.Sc.F., Bachelor Science of Forestry.

- Abbott, Stephen A., 419 McLaughlin St., Ottawa.  
 Airst, H., Fort William, Ont.  
 Alexander, R., 17 Monk St., Ottawa.  
 Alford, Walter, Belleville, Ont.  
 Allan, Gilbert, Export Lumber Co., Ottawa.  
 Allan, J. B., Robert Cox & Co., Ottawa.  
 American Lumberman, Chicago, representative of (Albert Cone).  
 Ami, Dr. H. M., Geologist, 453 Laurier Ave. E., Ottawa.  
 Anderson, Rev. E. A., 17 Fairmont Ave., Ottawa.  
 Andrews, Leonard, School of Forestry, University of Toronto, Toronto, Ont.  
 Anstie, W. A., Secy. Mountain Lumber Manufacturers' Association, Calgary, Alta.  
 Antoine, R. P., Abbott of La Trappe, Que.  
 Armstrong, L. O., Colonization Agt., C.P.R., Montreal.  
 Bailey, W. F., 297 St. Antoine St., Montreal.  
 Baird, Hon. G. T. (Senator), Andover, N.B.  
 Ball, C. W., 573 Wellington St., Ottawa.  
 Ballantyne, J., 54 Main St., Ottawa.  
 Ballantyne, Norman F., 110 Hawthorne Ave., Ottawa.  
 Barnard, W. R., Ottawa.  
 Barnjum, Frauk J. D., Lynfield Centre, Mass.  
 Beatty, W. R., Colonial Lumber Co., Pembroke, Ont.  
 Bell, W. J., Spanish River Lumber Co., Sudbury, Ont.  
 Bédard, Avila, M.F., Professor of Forestry, Laval University, Quebec.  
 Bartram, J. C., The Rideau Lumber Co., Ottawa.  
 Beland, Hon. H., M.P., Beauce, Que.  
 Belisle, J. R., Ottawa University.  
 Belford, J., Ottawa.  
 Bell, J. Jones, Rockcliffe Park, Ottawa.  
 Bell, J. M., 166 Centre St., Ottawa.  
 Bell, Dr. Robert, F.R.S.C., F.R.G.S., etc., Ottawa.  
 Berry, W. B., Ottawa, rep. *N. Y. Sun*, etc.  
 Berry, W. H., Assistant Deputy Surveyor General, Fredericton, N.B.  
 Berry, W. W., 118 Macdonald St., Ottawa.  
 Binger, Harry, 408 Lewis St., Ottawa.  
 Bishop, R. W., Owen Sound, Ont.  
 Black, W. J., B.S.A., Principal Manitoba Agricultural College.  
 Blackburn, James, 83 Bayswater Ave., Ottawa.  
 Blair, W. B., 45 Souvenir Ave., Montreal.  
 Blais, Noah, 88 Charlotte St., Ottawa.  
 Blanchet, Octave, Amqui, Que.  
 Blue, Archibald, Chief Officer Census Dept., Ottawa.  
 Blue, C. S., Committee Staff, House of Commons, Ottawa.  
 Blyth, A. W., Mutchmor St., Ottawa.  
 Booth, C. Jackson, Ottawa.  
 Borden, Sir Fredk., Ottawa.  
 Borden, Rt. Hon. R. L., Premier of Canada, Ottawa.  
 Bostock, Hon. Hewitt (Senator), Monte Creek, B.C.  
 Botten, E., Ottawa.  
 Bottomley, Mrs. Harry, 523 King Edward Ave., Ottawa.  
 Boulbee, Horace, Canada Lumberman, Toronto.  
 Bousfield, Rev. Geo., Eastview, Ont.  
 Bowman, H. J., C.E., County Engineer, Berlin, Ont.  
 W. Guy H. Boyce, Forestry Branch, Ottawa.  
 Boyd, W. T. C., The Mossom Boyd Co., Bobcaygeon, Ont.  
 Bradley, J. C., 178 Le Breton St., Ottawa.  
 Bradley, Reginald R., Forester N. B. Ry. Co., St. John, N.B.  
 Brennan, M. J., 62 Rideau Terrace, Ottawa.  
 Brinkerhoff, H. E., Riordon Paper Co., St. Jovite, Que.  
 Bristol, H. R., Forester D. & H. Co., Plattsburg, N.Y.  
 Britton, T., Ottawa.  
 Brock, R. W., Director Geological Survey, Ottawa.  
 Brown, Oscar Y., Ottawa.  
 Brown, R. M., Faculty of Forestry, University of Toronto.  
 Brown, W. R., Pres. New Hampshire Forestry Association, Pres. N. H. Forestry Commission, Berlin and Concord, N.H.  
 Browne, J. C., lumberman, Ottawa.  
 Bryce, Rev. Dr. George, Member Com. of Conservation and Member Com. on Technical Education, Winnipeg.  
 Burnham, J. H., M.P., Peterborough, Ont.  
 Burrell, Hon. Martin, Minister of Agriculture.  
 Burn, Geo., Gen. Mgr. Bank of Ottawa.  
 Burton, A. J., Sparks St., Ottawa.  
 Bysshe, Fred. H., Parks Branch, Dept. of Interior, Ottawa.  
 Calvin, Hiram, Gorden Island, Ont.  
 Cambie, Chas., Bank of Commerce, Ottawa.  
 Cameron, D. Roy, B.S.F., Forestry Branch, Dept. of Interior, Ottawa.  
 Cameron, R. G., Cameron & Co., Ltd., Ottawa.  
 Campbell, Arthur H., Montreal.  
 Campbell, A. C., Debates Office, Ottawa.  
 Campbell, Cassius, 396 MacLaren St., Ottawa.

- Campbell, R. H., Director of Forestry, Dept. of Interior, Ottawa.
- Campbell, Roy L., Toronto University, Faculty of Forestry.
- Cane, J. G., (J. G. Cane & Co.), Toronto.
- Carr, W. N., Woodstock, N.B.
- Carroll, W. F., 210 Slater St., Ottawa.
- Carufel, L. E., 82 St. Antoine St., Montreal.
- Cassels, Hon. W. G. P., Exchequer Court, Ottawa.
- Cauchon, N. C.E., 164 Waverley St., Ottawa.
- Charlton, Hon. W. A., M.P., ex-Minister of Crown Lands for Ontario, Lumberman and Limit Owner.
- China, Consul General of, (Hon. Mr. Wang), Ottawa.
- Chipman, W., 346 Frank St., Ottawa.
- Chown, Geo. Y., President Canadian Forestry Association, Kingston.
- Christie, H. R., School of Forestry, University of Toronto.
- Chubbuck, C. E. D., 350 Somerset St., Ottawa.
- Claire, R. K., 230 Clemow Ave., Ottawa.
- Clark, A. E., Toronto.
- Clark, J. A., Expt. Sta., Charlottetown, P.E.I.
- Clark, Dr. Judson F., Lyford, Clark & Lyford, Vancouver, B.C.
- Clarke, Chas. S., 407 Somerset St., Ottawa.
- Cochrane, R. J., 112 Lisgar St., Ottawa.
- Cole, T. B., Ottawa.
- Collins, J. R., Fassett Lumber Co., Fassett, Que.
- Conley, Rev. T. B., 27 Gwynne Ave., Ottawa.
- Cook, Fred, Ottawa, rep. *London Times*.
- Coolican, P. T., 419 Daly Ave., Ottawa.
- Conn, H. S., Ottawa.
- Cornellier, L. P., Ottawa University.
- Costigan, Hon. John (Senator), Edmundston, N.B.
- Cote, Louis, St. Hyacinthe, Que.
- Cottle, Herbert, 3 Cathcart Sq., Ottawa.
- Cotton, A., 1133 Pacific St., Vancouver, B.C.
- Coupal, Geo. F., Ottawa University.
- Coutlee, Lt.-Col. L. W., 136 Bay St., Ottawa.
- Crawford, M., Campbellville, Ont.
- Cream, Daniel, 303 Pine Ave. West, Montreal.
- Creighton, C. D., Toronto.
- Crombie, W. R., of E. H. Lemay, 81 New St., New York City.
- Crothers, Hon. T. W., Minister of Labour, Ottawa.
- Crowe, W. J., 906 St. Catharine St. East, Montreal.
- Cummings, M. M., River Desert, Que.
- Curry, Nathaniel, President Canadian Manufacturers' Assn., Montreal.
- Davidson, Hugh, (Hastings Shingle Mfg. Co.), Vancouver, B.C.
- Davis, A. M., McAnuliffe-Davis Lumber Co., Ottawa.
- Davis, L., 94 Chapel St., Ottawa.
- Davison, Frank, Member Com. of Conservation, Bridgewater, N.S., and 117 Spadina Road, Toronto.
- Day, James R., 172 O'Connor St., Ottawa.
- Denis, Leo G., Com. of Conservation, Ottawa.
- Denison, R. Seldon, Breeze, Denison & Co., saw-mill mfrs., Napanee, Ont.
- Dick, W. J., Com. of Conservation, Ottawa.
- Dionne, G. L., Amqui, Que.
- Doherty, T. K., Chief of Publications Branch, Dept. of Agriculture.
- Dolan, Dominic J., University of Ottawa.
- Donnelly, Thomas, Deseronto, Ont.
- Doucet, J. A., Forestry Branch, Dept. of the Interior, Ottawa.
- Dowling, D.B., Geological Survey, Ottawa.
- Drake, E. F., Irrigation Branch, Dept. of Interior, Ottawa.
- Driscoll, D. J., 143 Gloucester St., Ottawa.
- Dufresne, Thomas, 452 Pie IX Ave., Maison-neuve, Que.
- Dunlop, N. Stewart, Claims Agent Eastern Division Canadian Pacific Railway, Montreal.
- Dwight, T. W., B.Sc.F., Forestry Branch, Dept. of the Interior, Ottawa.
- Dyer, Mrs. W. E. L., representing Montreal Women's Club, 310 Grosvenor Ave., Montreal.
- Eadie, Rev. Robt., 1321 Wellington St., Ottawa.
- Eastcott, A. L., Pembroke Lumber Co., Pembroke.
- Eastcott, W. M., Ottawa.
- Edgar, F. G., Faculty of Forestry, University of Toronto.
- Edgar, N. N., Arthur St., Ottawa.
- Edwards, C. M., Watson & Todd Co., Ltd., Ottawa.
- Edwards, Gordon C., Ottawa.
- Edwards, Hon. W. C., Ottawa, Past President Canadian Forestry Association.
- Egan, H. K., Hawkesbury Lumber Co., Ottawa.
- Ellis, L. M., C.P.R. Forestry Dept., Winnipeg, Man.
- Elmitt, T. F., Ottawa, Ont.
- Engrem, E. M., 112 Fourth Ave., Ottawa.
- Evans, A. Kelly, Ontario Fish & Game Commissioner, Toronto.
- Everist, R. E., Saskatchewan Exper. Station, Scott, Sask.
- Fairfield, W.A., Lethbridge, Alberta.
- Fenton, J. W., 359 Cooper St., Ottawa.
- Ferguson, P., Tate, Sask.
- Fernow, Dr. B. E., Dean of the Faculty of Forestry, University of Toronto.
- Filion, W. A., of E. H. Lemay, 683 St. Denis St., Montreal.
- Finlayson, Ernest H., Forest School, University of Toronto.
- Firstbrook, W. A., of Firstbrook Box Co., Toronto, representing Toronto Board of Trade.
- Fisher, Hon. Sydney, ex-Minister of Agriculture.
- Fleming, W. J., 49 Brooke Ave., Westmount, Que.
- Fogarty, W., 374 Slater St., Ottawa.
- Foster, Hon. Geo. E., Ottawa.
- Foster, Hon. J. G., United States Consul General to Canada, Ottawa.
- Fox, Geo. M. (ex-Warden of Wellington County), Drayton, Ont.
- Fraser, J. B., Lumberman, Ottawa.
- Fraser, M. F., 279 Arlington Ave., Ottawa.
- Fraser, Rev. R. Douglas, Presbyterian Publications, 60 Bond St., Toronto.
- Fream, Edward J., 608 Leeson & Lineham Block, Calgary, Alta.
- Gagne, Phillippe, Ste. Luce, Rimouski County, Que.
- Gardner, Geo. C., Manager Bank of Toronto, Ottawa.
- Garratt, R. S., Wellington, Ont.
- Genest, Arthur T., 519 King Edward Ave., Ottawa.
- Gibb, Lachlan, J.P., Montreal.
- Gilbert, A. V., 383 Albert St., Ottawa.
- Gillies, D. A., Braeside, Ont.
- Gilmour & Hughson, Hull, Que.
- Gillmor, John M., 522 Rideau St., Ottawa.
- Godfrey, Ernest H., Census & Statistics Branch, Ottawa.
- Goodeve, A. S., M.P., Kootenay, B.C.
- Gordon, Geo., ex-M.P., Cache Bay, Ont.
- Gordon, P. D., 80 St. Francois Xavier St., Montreal.
- Gosselin, D., 977 Wellington St., Ottawa.
- Gov, John, 140 Parkdale Ave., Ottawa.
- Graham, E. J., Buckingham, Que.
- Graham, James, Teulon, Man.
- Graham, Martin, 23 Forest Hill Road, Toronto, Ont.
- Graham, W., Fortune, Kamloops, B.C.
- Grant, Sir James, M.D., Ottawa.
- Gratton, N., 410 Nelson St., Ottawa.
- Gripton, James, 153 Victoria St., Toronto.
- Guy, Stanislas, Sandy Bay, Matane County, Que.
- Guendon, Romeo, University of Ottawa.
- Guppy, Harry J., 502 Lyon St., Ottawa.
- Gussow, W. T., Dominion Botanist, Ottawa.
- Hall, E. H., L.H.D., Sec. of Association for Protection of the Adirondacks, 154 Nassau St., New York City.
- Haney, F. R., C.P.R., Montreal, Que.
- Hanley, Denis, Read, Ont.
- Hardy, Edgar D., 42 Central Chambers, Ottawa.
- Hare, W. A., 38 Preston St., Ottawa.
- Harkom, Lt.-Col. J. W., Director Canadian Forestry Assn., Melbourne, Que.
- Harris, J. A., Ottawa University.

- Harrison, Dr. F. C., Pres. Macdonald College, Quebec.
- Hartt, T. A., M.P., St. Andrews, N.B.
- Harvey, W. H., Deseronto, Ont.
- Hawkins, Frank, Secretary Canadian Lumbermen's Assn., Ottawa.
- Heins, Donald, Ottawa.
- Hellyer, A. W. E., 69 Belmont Ave., Ottawa.
- Herold, Otto, Brantford, Ont.
- Hewitt, Dr. C. Gordon, Dominion Entomologist, Central Experimental Farm, Ottawa.
- Higman, Ormond, Chief Electrical Engineer, Inland Revenue Dept., Ottawa.
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# Conservation Commission Meeting, 1912

The Commission of Conservation held its third annual meeting, according to statute, on Tuesday, Jan. 16. The Commission met in the Carnegie Library, Ottawa, the members present being Hon. Clifford Sifton, who presided, Sir Sandford Fleming, of Ottawa; Hon. Martin Burrell, of Ottawa; Hon. H. S. Beland, of St. Joseph de Beauce, P. Q.; Hon. W. C. Edwards, of Ottawa; Dr. B. E. Fernow, of Toronto; Rev. Dr. Geo. Bryce, of Winnipeg, Man.; Messrs. Frank Davison, of Bridgewater, N. S.; C. A. McCool, of Ottawa, and J. F. Mackay, of the Globe, Toronto.

The chairman opened the meeting with a brief speech and then called on the different technical officers of the Commission.

Dr. C. A. Hodgetts, Medical Adviser to the Commission, reported for the Committee on Public Health, touching on the work of that committee in regard to tuberculosis, the establishment of a Dominion Department of Public Health and of a Dominion Laboratory, where sera of guaranteed strength and purity could be prepared, infantile paralysis, town planning and housing, rural sanitation, inspection of meat, the Ottawa typhoid epidemic of 1911, bovine tuberculosis, and the establishment of the Canadian Public Health Association.

Mr. F. C. Nunnick, agricultural expert of the Commission, then presented the report of that section. Among the topics touched upon were the agricultural survey of representative areas of the different provinces, and the investigation of alfalfa-growing in the province of Quebec; a number of suggestions for the future work of the Commission were also given.

Mr. W. J. Dick, mining expert for the Commission, presented the report of that section, discussing briefly the inspection of coal mines made under the direction of the Commission, making recommendations for the bettering of government regulations in regard to natural gas, records of drill-holes and plans of abandoned mines, and recommending a Royal Commission to investigate the high death-rate in the mines of Canada.

The chairman then brought up the matter of peat fuel, reading a memorandum prepared by the Superintendent of Mines on the establishment of a peat industry for Canada.

Mr. M. J. Patton, editor and assistant secretary of the Commission, then reported for the Fisheries, Game and Fur-bearing Animals Committee. Among the topics touched on were the investigation of the fish and game resources of the different provinces, the oyster and shad fisheries, fur farming and the unsatisfactory nature of the published statistics on natural resources.

Mr. Leo. G. Denis, hydraulic engineer for the commission, then reported on the work done in the investigation of Western water-powers, and discussed the matter of a 'power survey' for Canada.

Mr. A. V. White also reported on the British Columbia water-powers. He gave a resumé of the arrangements made with the provincial government in regard to the work, and also the work done under the Dominion Government authorities in the Railway Belt and by the Commission's engineers in the Kootenay district, also work done for the town of Red Deer, Alta.

Mr. Patton also reported for the publication work of the Commission.

## THE NOVA SCOTIA FOREST SURVEY.

Dr. B. E. Fernow then reported on the Nova Scotia forest survey. After touching on the origin of the survey, describing the data secured, the nature of the survey and the personnel of the party (already noted in the Canadian Forestry Journal, 1909, page 141), he gave some interesting facts secured as the result of the work of the party. The farm land of the province was found to be 20 per cent. of the area, the green forest area slightly less, virgin forest practically none (only some 100,000 acres), the burned-over area about eight per cent., the waste area recoverable ten per cent., and the natural waste area ten per cent. The total estimate of the timber of the province came to some eight and a half billion feet and might run to ten billion (10,000,000,000) feet. The distribution of the different species among these ten billion feet was found to be in the following proportion: spruce, five; hemlock, three; white pine, one. An investigation was also made into the rate of growth of the spruce, which was found to be much slower than was commonly supposed in the province; instead of producing pulpwood twelve inches in diameter in fifty years, it would take 120 years to do this. The present mill capacity of Nova Scotia was capable of

exhausting the supply of merchantable timber in twenty years.

The chairman also discussed the work of the commission in forestry matters. It had taken an active part in getting the Rocky Mountain forest reserve and the obtaining of legislation in regard to the measures to be taken by railways against forest fires.

#### Afternoon Session.

In the afternoon the first item on the program was an address by Dr. J. W. Robertson, who gave a report in some detail on the agricultural survey of the Dominion. He discussed also seed-selection, weeds and plant diseases and illustration farms.

#### THE ROCKY MOUNTAIN FOREST RESERVE.

Mr. R. H. Campbell, Director of Forestry, then addressed the Commission on the Rocky Mountain forest reserve. He referred to the boundaries of the reserve as first set apart by Council and explained how it had been necessary to enlarge these. The general principle laid down in marking out the eastern boundary of the reserve was to include all land lying at an elevation of 4000 feet or over, above which agriculture could not be carried on. Timber line was, generally speaking, at an elevation of 6000 to 7000 feet. The chief trees were Engelmann spruce, Douglas fir and lodgepole pine. The supply of timber was very important for the coal mines of the Eastern slope, and the reserve was also important on account of its including the sources of the chief streams watering the prairies, and hence was important for irrigation, domestic water supply and power.

Mr. Campbell then summarized the provisions of the Forest Reserves Act of 1911. He then went on to treat particularly the provisions of the Act. Only portions of the reserve were made into game preserves, but in these a very fair amount of protection had been given and the results were noticeable.

The two great objects of the administration of the reserve, however, were the protection of the timber from fire and the protection of the water supply. The cost of administration of the forests in Germany was at least one dollar per acre, and in the United States two cents per acre were allowed for the administration. So far, the government of Canada had not granted even one cent per acre for the administration of the Rocky Mountain reserve. There were many sources of danger from fire within the reserve. The greatest of these was the railways. The administration must be got into shape at once, so as to be effective when danger should come. Trails must be built to points commanding a view of the surrounding country, so as to discern fires,

and also all through the forest so that men can get quickly to the scene of a fire. There should also be a system of telephones, so that help could be quickly summoned. The disposal of the debris after lumbering was also important. A paramount question was that of the reproduction following lumbering. In the administration of the reserve there must be one man at the head, called perhaps an inspector. The reserve must be, for administrative purposes, broken up into districts, probably four in number, with a scientifically trained man in charge of each. Under these there should be a staff of fire-rangers, probably a dozen rangers for each division.

After resolutions favoring the extension of certain portions of the work of the Committee on Lands and for the establishment of a Dominion Laboratory had been agreed to, it was moved by Dr. Geo. Bryce, seconded by Mr. McCool, and carried;— That Dr. B. E. Fernow be appointed as the special representative of the Commission of Conservation to co-operate with His Honor Judge Mabee, Chairman of the Railway Commission, in the granting of regulations, under the law requiring railways to protect from fire forests through which they pass, and that Hon. W. C. Edwards, Dr. Fernow and the Chairman of the Commission be a committee to further the general purposes of the work in connection with the Railway Commission.

It was also moved by Hon. W. C. Edwards, seconded by Rev. Dr. Bryce, that in view of the enormous importance of this subject the Commission of Conservation recommends that an appropriation of not less than \$110,000 be provided for forest protection in the Rocky Mountain forest reserve during the fiscal year 1912-3. The motion was agreed to.

Dr. J. G. Adami was, on motion, appointed the representative of the Commission, in conjunction with representatives of the province of Ontario and the city of Toronto, on a commission to secure a more complete organization of agencies for the suppression of tuberculosis.

Resolutions were also passed directing the Committee on Public Health to represent the Commission on questions regarding town planning, approving the experiments regarding the use of peat for fuel and urging their continuance, making certain changes in the personnel of the Commission in accordance with certain changes in the Dominion and provincial ministries and appointing Dr. C. C. Jones and Hon. H. S. Beland as chairmen of the Fisheries, Game and Fur-bearing Animals Committee and the Water-powers Committee respectively, and adding to the personnel of certain committees.

The meeting then adjourned.

# La Forêt, la Température et le Régime des Pluies.

[L'article qui suit est un extrait du 'Manuel de l'arbre', un ouvrage publié par le 'Touring-Club de France'. Le but du livre est bien défini dans les paragraphes suivants pris de l'introduction :

Ce petit livre est dédié à la jeunesse. Il répond au désir récemment exprimé par MM. les Ministres de l'Instruction publique et de l'Agriculture que des notions sommaires de sylviculture et d'améliorations pastorales soient données dans les Ecoles.

Son but est, surtout, d'inspirer aux enfants l'amour de l'arbre et des forêts, de faire ressortir l'utilité, le rôle essentiel que ces sociétés végétales jouent dans la nature et leurs rapports nombreux et étroits avec nos sociétés humaines.—*Ed.*]

En été, quand, après avoir traversé une grande plaine brûlée par le soleil, on arrive sous les ombrages d'une forêt, on éprouve une délicieuse fraîcheur. En hiver, c'est une impression contraire que l'on ressent et l'on se trouve réchauffé, protégé contre le froid par le couvert ou l'abri des arbres. Les observations thermométriques sont d'accord avec ces impressions.

Sous bois la température moyenne est moins chaude en été, moins froide en hiver qu'en terrain découvert. Les écarts de la température diurne sont également atténués : le thermomètre s'élève moins haut dans le milieu du jour et s'abaisse à un degré moindre au coucher du soleil. Ainsi la forêt régularise la température et cet effet se propage dans un certain rayon à l'entour de ses massifs. Elle a donc une influence comparable à celle de la mer dont la température beaucoup plus constante que celle de la terre tantôt réchauffe, tantôt refroidit ses rivages. Je n'ai pas besoin de dire combien cette régularisation du climat est favorable à la santé de l'homme aussi bien qu'à la prospérité de ses cultures. Celles-ci ont moins à redouter la gelée et les ardeurs du soleil.

La même influence régularisatrice est exercée par les forêts sur le régime des pluies'. Dans les régions boisées, les pluies sont plus fréquentes, plus prolongées, mais moins violentes.

La caractéristique des régions déboisées est au contraire d'avoir des pluies rares, mais torrentielles. L'explication de ces faits est simple. L'atmosphère qui entoure les forêts est presque toujours humide. Après la pluie, l'eau séjourne sur le sol ombragé et ne s'évapore que très lentement. D'autre part, les racines vont chercher jusqu'à une grande profondeur l'eau nécessaire à la formation des tissus de l'arbre. Une grande partie de cette eau est rendue peu à peu par la transpiration de feuilles à l'atmosphère qui ainsi conserve tout l'été un degré d'humidité sensiblement plus élevé qu'en terrain découvert. Or, on sait que l'humidité atmosphérique se résout d'autant plus facilement en pluie que l'air est plus abondamment chargé de vapeur d'eau et qu'ainsi il approche davantage de ce que l'on appelle le 'point de saturation.' Le moindre abaissement de la température suffit alors à provoquer la condensation pluviale. Cet abaissement de la température peut être provoqué par la forêt elle-même. On a constaté en effet que les couches d'air qui composent l'atmosphère au-dessus des massifs boisés sont jusqu'à une hauteur assez considérable plus froides que dans les régions environnantes. Les aéronautes, notamment, ont remarqué qu'en passant au-dessus de grands massifs boisés, leurs ballons s'abaissaient d'eux-mêmes vers la terre ainsi qu'il arrive par le fait d'un refroidissement extérieur, diminuant la tension du gaz dans l'aérostat.

Il résulte de là qu'en été, quand

les courants aériens, déjà chargés d'une certaine quantité de vapeur, arrivent en contact avec cette colonne d'air plus humide et plus froid qui surmonte et enveloppe les forêts, ils abandonnent assez fréquemment, sous forme de pluie, de brouillard, de rosée, une partie de leur humidité. Voilà pourquoi on entend dire que les forêts attirent la pluie. Voilà pourquoi dans les vastes plaines de la Russie méridionale où les récoltes sont très fréquemment compromises par la sécheresse du climat, le Gouvernement et parfois les propriétaires particuliers font planter à l'entour des terres de culture de grands rideaux boisés.

C'est bien aussi à la disparition des forêts qu'il faut pour une grande part attribuer les sécheresses prolongées qui désolent certaines contrées telles que la Grèce, l'Asie Mineure, la Syrie, l'Algérie, l'Espagne, le Midi de la France, presque tous les rivages enfin de la Méditerranée. De faits nombreux relatés par les historiens, par les voyageurs, par les géographes et entre autres par notre grand géographe français Elisée Reclus, il ressort nettement que ces régions étaient autrefois mieux arrosées, plus riches en eaux courantes, moins arides.

Elles étaient à coup sûr beaucoup plus fertiles et prospères. Leur climat semble s'être asséché. Qu'elles pleurent à jamais leurs forêts détruites! Car c'est surtout sous leur ciel chaud et lumineux que l'on peut dire: 'Terre sans eau, terre sans récolte.'

<sup>1</sup>Ensemble des caractères que présentent les pluies dans une région déterminée, notamment au point de vue de leur fréquence, de leur intensité, de leur distribution, suivant les saisons, etc.

### Rules Will be Framed.

Of the very greatest importance to forestry interests was the session of the Railway Commission held at Ottawa, on February 7th, the first morning of the Association's conven-

tion, when the matter of regulations governing railways in the matter of forest fires arising from the operation of their lines through forested districts was before the Board.

The question came up on an application from the British Columbia Department of Lands, asking for an order of the Board regulating the operation of locomotives within the forest regions of the province. This order was granted.

Judge Mabee said the regulations would be drawn up and submitted to the parties concerned and, if too drastic, amended. The question, he thought, should have come up twenty five years ago.

The matter of oil-burning locomotives was discussed at some length. The officials of the C.P.R. said these locomotives were now being used on their western lines, but were found expensive. Great Northern Railway representatives reported that their road was using oil-burning locomotives with satisfaction. Dr. Fernow urged the use of oil-burning locomotives, as tending to keep down the number of forest fires.

### Will Study Forest Insects.

Mr. J. M. Swaine, M.Sc.A., late of Macdonald College, has been appointed to the staff of the Central Experimental Farm, and will, under the direction of Dr. C. Gordon Hewitt, carry on the study of insects affecting forest trees. His special work is indicated by the designation Assistant Entomologist for Forest Insects.

Mr. Swaine is a graduate of Cornell University, where he obtained both the Bachelor's and the Master's degrees in Agriculture. He has spent five years on the staff of the Macdonald College, as lecturer in the biological department, of which Prof. Lochhead is the chief.

Mr. Swaine is at present engaged on special study of the *Scolytidae*, or bark-boring beetles.



# With the Forest Engineers.

## Annual Meeting C.S.F.E.

The annual meeting of the Canadian Society of Forest Engineers was held in Ottawa on Thursday evening, February 8, at eight o'clock.

The President, Dr. B. E. Fernow, occupied the chair, and there were also present the following active members: Dr. J. F. Clark, of Vancouver, B.C.; N. M. Ross, of Indian Head, Sask.; A. H. D. Ross and Dr. C. D. Howe, of the University of Toronto Faculty of Forestry; E. J. Zavitz, of the Ontario Agricultural College, Guelph, Ont.; Ellwood Wilson, of Grand Mère, P.Q.; L. M. Ellis, of the C.P.R. Forestry Dept., and R. H. Campbell, H. R. MacMillan and F. W. H. Jacombe, of Ottawa, Ont.

After some discussion regarding the finances of the society, it was resolved that associate members, as well as the active members, should receive the Forestry Quarterly as return for a portion of the membership fees.

On motion Mr. H. R. MacMillan was appointed auditor for the current year.

A discussion was introduced by Mr. Wilson as to the feasibility of standardizing mapping and estimates of cost. The value of an interchange of ideas among the members on this and other subjects was pointed out. Many of them were doing private work, and the benefit of any progress on their part in regard to methods in the absence of any publication was lost. The subject was especially suited to the present stage of development of forestry in Canada because the majority of foresters in the Dominion were doing mapping and estimating work almost exclusively.

On motion a committee was appointed to investigate the possibility of standardizing the maps along the lines suggested.

Mr. Wilson was appointed to investigate the practicability of the formation of an international society of foresters.

The meeting then adjourned.

## Notes on Rocky Mountain Reserve.

The plans under consideration for the management of the Rocky Mountain forest reserve contemplate the division of the whole reserve into four districts, viz.: (1) from the International boundary north to the High River district; (2) from the High River district north to the headwaters of the Red Deer river, or thereabouts; (3) from this last-named point to the Athabaska, and (4) all north of this to the northern boundary of the reserve.

Each of these districts will have a supervisor, a technical assistant and a staff of rangers. The central office will probably be located in Calgary, from which the Cooking Lake and Cypress Hills reserves, with any others that may, and in all probability, will be established in the north, will be administered.

Trails will be put through with all possible speed and telephone lines established. Houses and shacks for the rangers will be constructed at a number of important points. The rangers must live on their beats.

A considerable number of scientific foresters will be required to work out the organization properly, in addition to the local men to fill the lesser offices.

Mr. R. R. Bradley, forester for the New Brunswick Railway Co., was one of New Brunswick's representatives at the late convention.

Mr. C. A. Lyford, Montreal, of the firm of Lyford, Clark and Lyford, forest engineers, attended some of the convention sessions.

Mr. R. H. Campbell, Superintendent of Forestry, Ottawa, was the host at a very pleasant and informal dinner given to the professional foresters in attendance at the convention on Thursday evening, February 8th, at the Laurentian Club, Ottawa. The guests comprised Dr. B. E. Fernow, Dr. J. F. Clark, Dr. C. D. Howe, and Messrs. E. J. Zavitz, N. M. Ross, Ellwood Wilson, A. H. D. Ross, L. M. Ellis, H. R. MacMillan, T. W. Dwight, E. G. McDougall, D. R. Cameron and F. W. H. Jacombe.

Mr. J. R. Dickson has been hard at work all season at his work of technical assistant on the Rising Mountain forest reserve, with headquarters at Dauphin, Man.

Mr. F. W. Beard has been assigned to duty as technical assistant on the Duck Mountain forest reserve, also with headquarters at Dauphin, Man.

The forest engineers who have been during this winter at headquarters at the Forestry Branch, Ottawa, include Messrs. E. G.



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McDougall, T. W. Dwight and D. Roy Cameron.

Mr. P. Z. Caverhill has been given the duties of technical assistant on the Cypress Hills reserve.

Mr. G. H. Edgecombe is making his headquarters at Edmonton this winter. His address is c/o Commissioner Dominion Parks, Edmonton, Alta.

Messrs. G. C. Piché and A. Bédard, forest engineers of the Quebec Department of Lands and Forests, were in attendance at the convention. Their many friends among the forest engineers regretted that pressure of official business compelled their cutting their stay short.

Many of the students of the University of Toronto Faculty of Forestry visited Ottawa for the convention.

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To the Secretary, Canadian Forestry Association,  
 Canadian Building, Ottawa, Ont.;

I hereby suggest the names of the following persons as likely to become members of the Canadian Forestry Association:

| Name. | Address |
|-------|---------|
| ..... | .....   |
| ..... | .....   |
| ..... | .....   |
| ..... | .....   |

(Signed) .....