April 19th, 1926.

Edward Beck, Esc., Secretary, Canadian Pulp & Paper Association, 511 St. Catherine St. West, Montreal.

Dear Mr. Beck :-

I beg to acknowledge receipt of your letter of April 17th with reference to the matter of the new building for the Pulp and Paper Division of the Forest Products Laboratories, etc.

I shall at all times be ready to discuss the matter further with your President's Committee. I would, though, ask him to avoid if possible the dates April 28th to May 2nd, inclusive.

Yours faithfully,

Principal.



# Canadian Pulp and Paper Association

511 ST. CATHERINE STREET WEST

MONTREAL

TEL. UPTOWN 1346 CABLE ADDRESS"PAPERPULP"

Apr. 17, 1926

Sir Arthur Currie, G.C.M.G., K.C.B.,

Principal and Vice-Chancellor,

McGill University

Montreal

Dear Sir Arthur Currie,

You will be interested in learning that the Executive Council of the Canadian Pulp & Paper Association at a meeting held in Montreal on April 15th gave consideration to a proposal coming from the Research Section looking to the provision of a new building for the occupancy of the Pulp & Paper Division of the Forest Products Laboratories, the Department of Industrial and Cellulose Chemistry of McGill University, and of the executive offices for the Canadian Pulp & Paper Association.

A resolution was passed calling for the appointment of a special committee by the President of the Association and under his chairmanship to examine into the proposal in all of its bearings, to consult with the executives of the Companies comprising the membership of the Association, and, if deemed advisable, to develop a scheme for financing the project and to report back to the Executive Council the results of their investigation.

Mr. L.R.Wilson, our President, is wholly in sympathy with the proposal and will lose no time in getting his committee to work and we hope and expect that tangible results will follow within a reasonable time.

> Yours very truly, CANADIAN PULP & PAPER ASSOCIATION

Edward Beek

Secretary

EB/BC

May 4th, 1925.

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Dr. R. F. Ruttan, Director, Department of Chemistry, McGill University.

Dear Dr. Ruttan:-

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With reference to your note of to-day, you may tell Mr. Hovey that the Forest Products Laboratories can have the additional accommodation practically at once.

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Yours faithfully,

Principal.

DEPARTMENT OF THE INTERIOR FORESTRY BRANCH

# FOREST PRODUCTS LABORATORIES OF CANADA

FOREST PRODUCTS LABORATORIES OF CANADA

MONTREAL

Report for the fiscal year 1922 - 1923.

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FOREST PRODUCTS LABORATORIES OF CANADA

MONTREAL

Report for the fiscal year 1922 - 1923.





Report of the Superintendent of the Forest Products Laboratories of Canada

W. Kynoch.

This report covers the fiscal year 1922-1923 ended March 31st, 1923.

As in the case of the preceding year the period now under review was again marked by a considerably augmented demand for the services of the Laboratories on the part of the industries and the public. Requests for technical information and service exceeded in number those dealt with in any previous year and outnumbered those of the last fiscal year by about one hundred. The Division of Pulp and Paper, which had been handicapped by inadequate staff, was strengthened by the appointment of a well qualified Pulp and Paper Specialist and by the addition of three technical men. The investigative and demonstration work carried out in the semi-commercial paper mill was more extensive than in any year since its installation, while the research and allied work of the Laboratories generally was greater in variety and amount than in any year since their inception.

A brief review of the activities of the various Divisions is given below.

#### DIVISION OF PULP AND PAPER

The major investigations carried out by this division during the year were as follows:

<u>Sulphite Pulp from Jack Pine</u>. Object: To develop a process of sulphite cooking which will yield a pulp of high quality free from resin.

Jack pine does not yield readily to the ordinary sulphite cooking process and endeavours to secure a satisfactory product by this process have as yet given far from satisfactory results, largely on account of the high resin content of the wood. In view of the large quantities of jack pine available the solution of the problem would be a valuable contribution to the pulp and paper industry.

The attempt was first made to eliminate resin by the use of cymene as an extracting medium. The results were unsatisfactory and the problem was next approached by careful manipulation of the cooking conditions. A material improvement was effected in the quality of the pulp. Further laboratory work, however, remains to be done. <u>Freeness as a Control Test in Groundwood Production</u>. Object: To determine the feasibility of applying the freeness test as a control in groundwood production.

The adaptability of this test to control work was investigated very thoroughly with promising results. The temperature of grinding was isolated as probably the most important factor in the

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production of a uniform grade of pulp. The investigation included work under commercial conditions at a paper mill and arrangements have been made to do similar work at three other mills with a view to substantiating results obtained. If the results are confirmed a contribution of material value to the industry will have been made. <u>Determination of the Burning Temperature of Exposed Chips in</u> <u>Sulphite Cooking</u>. Object: To determine the maximum temperature to which spruce and balsam fir chips may be raised, before being covered with acid, without injury to the chips.

The critical temperature was determined and the work successfully completed.

<u>Pulping Qualities of Fire-Killed Wood</u>. Object: To determine the effect of fire-killing and superficial charring on the pulping qualities of spruce and balsam fir.

The work was concluded and indicated that the fire-killed material, of which large quantities exist in certain districts, can be successfully used for pulp manufacture by the sulphite process.

<u>Chemical Research on Cellulose</u>. Object: To add to the knowledge of the constitution of the cellulose molecule and of the chemistry of the cellulose complex of Canadian woods generally, which is very incomplete.

Attention was given chiefly to the investigation of the chloral condensation products of cellulose on which a good deal of research work was done. The subject is a complex one and the investigation will be continued.

<u>Refining of Waste Paper Stock</u>. Object: To develop the best method of recovering good paper stock from the condemned paper currency withdrawn from circulation by the Department of Finance: to ascertain if this method can be profitably practised on a commercial scale.

Refining of the stock produced under normal cooking conditions was carried out and, by the exercise of great care and the use of a special washing equipment, it was found possible to recover an absolutely clean pulp. The work will be continued on a commercial scale, applying the information obtained at the Laboratories to the large equipment in Ottawa. Paper-making trials and the construction of a washing unit of sufficient size will also be involved.

In addition to the above several other investigations were undertaken: the sulphite pulping qualities of water-killed spruce were determined; a method of utilizing groundwood screenings by reducing them in a beater to a pulp of commercial quality was developed and awaits mill-scale trial; the fundamentals involved in the testing of pulps for strength were further investigated. Special attention was given also to paper fibre analysis and, in co-operation

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with the Technical Association of the Pulp and Paper Industry (U.S.) a material advance towards the standardization of methods was made.

#### DIVISION OF TIMBER PHYSICS

The following major investigations were conducted by this division:

<u>Preparation of Reference Collection of Microscopic Slides of Woods</u>. Object: To build up a collection of authentic microscope slides of the important commercial timbers of the world and of photomicrographs illustrative of anatomical features. Such a collection will be invaluable for research purposes as an intimate knowledge of the minute structure of woods is the key to innumerable problems encountered in their industrial use.

The work was continued from the preceding year and all Canadian timbers of any commercial importance have now been dealt with, together with a number of the more widely used foreign timbers. The work will be continued.

<u>Ply and Laminated Construction</u>. Object: To extend the field of application of the built-up type of construction, to add to technical knowledge on the subject and to draw the attention of industry to the latent possibilities in this connection which are, as yet, inadequately recognized.

Greater strength, freedom from warping, less waste in

manufacturing and (frequently) reduced weight are advantages often presented by built-up articles. The additions to our knowledge of adhesives which have been made in recent years have an important bearing on the strength and permanence attainable in built-up work. The work on adhesives which has been carried on by the Division of Timber Tests (See "Glued Joints", below) was therefore taken advantage of in this connection.

Attention was first given to sporting goods of which large quantities are imported into Canada. A laminated ski and a built-up tennis racquet were developed, service tests of the former carried out and those on the latter begun. The results were decidedly encouraging and commercial production on a small scale is expected to be begun by a Canadian firm sometime during the present year (1923). Further work on these articles, including strength tests on the skis, remains to be done following which other built-up products will be investigated.

<u>Kiln-Drying</u>. Object: To investigate the scientific principles involved in kiln-drying and to improve present kiln-drying practice.

The high percentage of loss in present day kiln-drying practice is serious and can be largely overcome by the dissemination of sound technical information and by demonstrations of the best modern practice and appliances.

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The preliminary work, which consisted of a thorough study of the theory and literature of the subject, was completed. A field study of kiln-drying practice at Canadian wood-working factories was begun and will be continued. This is to be followed by investigative and demonstration work at the Laboratories, which will involve the designing and construction of a kiln.

<u>Water-Storage of Groundwood Pulp</u>. Object: To determine whether the decay which frequently occurs in stored pulp, and is the cause of serious monetary loss, can be prevented by storage in water and, if so, whether the pulp thus stored is otherwise adversely affected for paper manufacture.

Groundwood pulp secured from various pulp mills has been stored in water for periods varying from two to three years. Paper made from these pulps was tested and compared with paper made from similar pulps newly manufactured and the results demonstrated that pulp can be stored under water for considerable periods without deterioration. The results of this investigation have already been brought to the attention of the industry and have attracted considerable attention. Semi-commercial and commercial trials are to be undertaken.

Decay of Timber in Buildings. Object: To secure exact and detailed information as to the conditions which facilitate the action of various wood-destroying fungi on woods used for interior construction in mills, factories, etc., and to work out procedure methods by means of which the decay can be prevented.

The monetary losses which result from such decay are very much greater than is usually supposed. Apart from decay, however, wood is an eminently suitable material for mill construction. The work has been in progress for some years and expert technical knowledge on the prevention of decay has been secured as a result of decay studies in some hundreds of large buildings, a number of which were examined during the year. The leading architects of the country were apprised of the service and advice which can be given to them in this connection and a special publication on the subject is being prepared.

Other investigations conducted by the division included a study of the relation of rate of growth to strength of several Canadian woods (which resulted in a valuable addition to our knowledge on this subject) and a study of the influence of rate of growth and structural characteristics of hard maple on penetration with creosote oil. A study of the development of red stain in jack pine, in relation to the use of this wood for ties, was begun. A considerable number of wood identifications was made, in response to requests from firms and individuals and photomicrographic work was carried out under the direction of the division.

#### DIVISION OF TIMBER TESTS

The major projects prosecuted by this Division during the year were as follows:

<u>Mechanical and Physical Properties of Woods Grown in Canada</u>. Object: To determine, by means of an exhaustive series of mechanical and physical tests, the strength functions of Canadian commercial timbers.

The obtaining of reliable data involves the making of a very large number of tests, some five thousand of which were carried out during the year. Results are of great value in connection with the utilization of wood for every purpose in which strength is of importance and are of immediate application in industry. Data have now been obtained for practically all Canadian timbers of any commercial value but much work remains to be done before figures can be considered complete.

<u>Glued Joints</u>. Object: To investigate the effectiveness of glues of the various classes for joint work.

Some twenty-six commercial adhesives of the hide and casein classes were investigated during the year, the work including both mechanical tests on joints and physical determinations on the adhesives. Aging tests to secure information on the permanency of the adhesives were also undertaken. The leading woods employed in cabinet and furniture manufacture were used. Upwards of five hundred mechanical tests were made and the work will be continued. Retention of Nails by Various Woods. Object: To ascertain the relative ability of various woods to retain nails.

Several widely used commercial woods were employed in the investigation and some six hundred tests were made with the specially designed equipment installed last year. Nails were of various types such as cement coated, barbed, etc.

Results are of value in connection with many uses of woods such as crates and containers for shipping manufactured articles. The work will be continued until all Canadian commercial woods have been covered.

Comparative Strength Values of Canadian Woods for Tie Purposes. Object: To establish "composite" figures for woods at present used, or of possible use, for railway ties.

The composite figure is arrived at by combining the figures for the several strength functions with the spike-retaining value, taking into consideration the physical properties of the wood under test. Spike-retaining tests were made on cedar, spruce and jack pine ties. The effect upon retention of driving into bored holes as compared with solid wood was carefully investigated, special attention being given to the effect of varying the diameter of the bored holes. The work will be continued until figures have been established for the several species to be covered. Several other investigations were also conducted. The strength of telegraph top pins of Canadian birch, beech and maple was compared with that of top pins of imported woods. Results demonstrated that the Canadian hardwoods possessed ample strength for the purpose. The strength of paper cores of different designs was further investigated, the shearing strength of plywoods was enquired into and a variety of minor tests and studies made.

In addition the preparation of maps showing the commercial distribution of our various timber species was undertaken. A considerable amount of work was done and the maps were nearing completion by the close of the year. No such maps have heretofore been available for Canadian woods and when complete they will be of material assistance in our researches on the strength of timbers and for other purposes.

#### DIVISION OF WOOD PRESERVATION

The major investigations under way in this division during the year were as follows:

<u>Creosote Treatment of Hard Maple for Railway Ties.</u> Object: To work out a satisfactory method of creosote treatment of this wood for the purposes and to establish service tests in track.

Maple proved to be a most erratic wood as regards penetrability with creosote oil, some material being very readily penetrable and some extremely refractory. An endeavour was made to ascertain the causes of this state of affairs by means of a study of the minute structure of the wood but gave negative results. Extensive work was done on treatment and a reasonably satisfactory method was finally worked out. Service test in track was not begun as all the ties treated for such test had to be used for study of penetration.

#### Creosote Treatment of Aspen for Railway Ties. Object:

(a) To determine the rate of seasoning of aspen ties and to ascertain the length of seasoning period necessary to bring them to "treatable condition".

(b) To work out a satisfactory method of creosote treatment of this wood for tie purposes.

Large Quantities of aspen occur in certain districts of Canada and in parts of Western Canada considerable supplies exist contiguous to railway lines. Little, if any, use is made of this timber. If, however, its natural perishability can be offset by means of a satisfactory creosote treatment, it should become of considerable value as a tie material.

The investigation now reported must be regarded as a preliminary one only as the material, which had been brought from the Peace River District, proved to be insufficient to permit of final conclusions being drawn. Tentative conclusions were, however, reached. While it will probably not be feasible to undertake further experimental work during the current year (1923-1924) the tentative conclusions remain to be confirmed by further work. It is believed, however, that, by means of the incising process, the wood can be successfully and economically treated. If so, the economic advantage to the prairie provinces and the trans-continental railways should be considerable.

<u>Preservative Treatment of Canadian Hardwoods for Top Pins and Pole</u> <u>Brackets</u>. Object: To work out a satisfactory method of creosote treatment of certain Canadian hardwoods for the accessories named.

Upwards of 6,000,000 top pins and brackets are used annually in Canada on poles for telegraph and telephone lines and up to the present time a large proportion has been manufactured from imported wood. Hardwoods must be used as mechanical strength is an important consideration. The perishability of hardwoods indicates preservative treatment as an economy.

A considerable amount of work was done both at the Laboratories and at a plant manufacturing the accessories and a satisfactory open-tank treatment was worked out. The specifications and price of the preservative were important factors and received due attention.

Special attention was also given during the year to the chemistry and specifications of creosote oils, tars and creosote-tar mixtures; further work on fire-retardent treatment of woods was done; a careful study and suggested revision of commercial specifications for telegraph and telephone poles was made and a number of minor tests and studies conducted.

#### EXHIBITS

The collection and preparation of exhibits of forest products and articles manufactured or derived therefrom was continued and a number of additions made to the permanent exhibit at the Laboratories. Exhibits were prepared also for the use of other Government offices and for display in public places. The Department occupied space at the 5th National Exposition of Chemical Industries held in New York during September, and an exhibit, illustrative of some of the possibilities of Canada as a field for chemical industries requiring water power or products of the forest, was prepared at the Laboratories. This exhibit was shown at the Sherbrooke Fair prior to being shipped to New York.

There was a brisk demand for hand-specimens of Canadian woods. A new supply of sets was prepared and a considerable number distributed in response to requests from educational institutions and others in Canada and abroad.

The work of collecting and displaying miscellaneous forest products such as gums, extracts, resins, etc. involved a good

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deal of study and enquiry on the part of the Exhibit Specialist and enabled him to undertake the task of dealing with enquiries on such products. The Exhibit Specialist also devoted a considerable amount of time to work in connection with the preparation of matter for publication.

#### LIBRARY

The reference library, which deals with the technology of woods, the products therefrom and related matters, was materially extended and improved. Literature bearing on many phases of the subjects mentioned has been collected and analysed for the past nine years and the reference library thus built up is an invaluable aid to the technical staff in their investigative work.

#### INFORMATION FURNISHED

The supplying of technical information in answer to inquiries relating to woods and products manufactured or derived from woods, is an increasingly important function of the Laboratories. The work involves a careful study of the available data on the subject in question and, in some cases, tests or investigations, the final step being the compilation of a report which is forwarded to the enquirer. Well over five hundred such enquiries received attention during the year, a greater number than in any previous year. The continually growing demand for the services of the Laboratories which is indicated

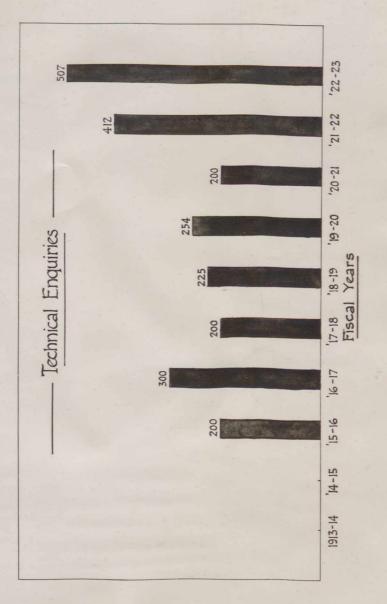
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by the annually increasing number of technical enquiries is worthy of note.

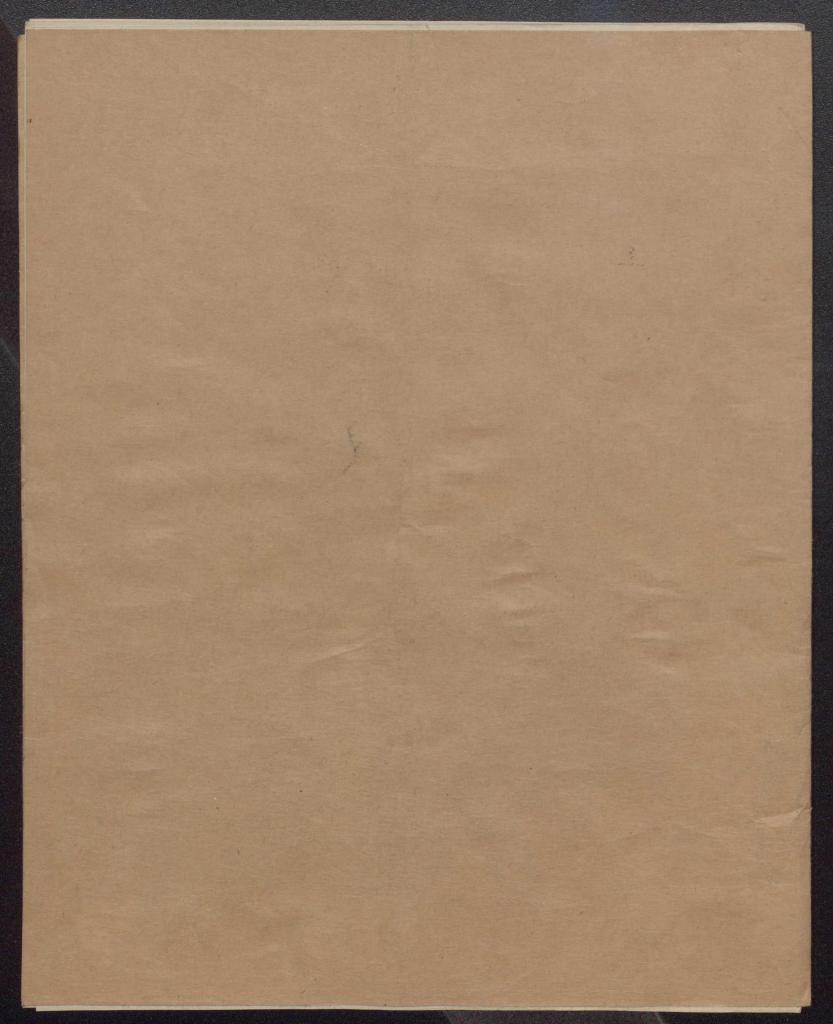
#### GENERAL

A number of technical articles and news-items was prepared during the year by members of the staff and published in Canadian and other periodicals or news-papers. The very complete bulletin on the distillation of hardwoods, which was prepared last year, appeared in print and has proved to be much in demand. A circular dealing with the creosote treatment of fence posts was prepared and is expected to be ready for distribution early in 1923-4. A number of lectures and addresses were also given before scientific and technical societies.

The investigative and research work of the Laboratories involves a good deal of special photography and photomicrographic work for record and other purposes and a high standard in this work was maintained. In this connection the series of photomicrographs of fibres and wood structure prepared for insertion in volume three of "The Manufacture of Pulp and Paper" a standard text book issued by the Pulp and Paper Industry of the United States and Canada, met with very favourable comment when the volume appeared.



Number of technical enquiries received yearly at the Forest Products Laboratories of Canada During the years 1915-16 to 1922-23.



June 30th, 1926.

The Assistant Superintendent, Forests Products Laboratories, University Street, Montreal.

Dear Sir :--

I am attaching herewith letter from a Mr. H. J. Curtis of Scotstown, Que. addressed to the Principal of McGill University.

The Principal would be pleased if you would give Mr. Curtis the information he desires.

Yours faithfully.

Principal's Secretary.

June 30th, 1926.

H. J. Curtis, Esq., Scotstown, Que.

Dear Mr. Cuptis :-

In the absence of the Principal I beg to acknowledge receipt of your letter of June 28th.

I have referred it to the Forest Products Laboratories here and the Superintendent there assures me he will do what he can to help you out.

Yours faithfully,

Principal's Secretary.

May 30th. 1924.

Dr. Maurice Brot, Boite Postal, 72, Grenoble, France.

Dear Sir:-

I beg to acknowledge your letter of the 13th of May asking for an appointment in the Forests Products Laboratory.

This is a Government institution and your application should be addressed to the Civil Service Commission. May I suggest that you send it direct to them.

Yours faithfilly,

Wilfrid Bovey.

### McGILL UNIVERSITY MONTREAL

SCHOOL OF COMMERCE, OFFICE OF THE DIRECTOR May 26th, 1924.

Sir A.W.Currie,

Principal, McGill University.

Dear Mr. Principal.

Dr.Maurice Brot, of the University of Grenoble, has sent me the enclosed application for a post in the McGill Forest Products Laboratories, with the request that it be forwarded to you.

I knew Brot very well when he was Professor of Physics and Chemistry in the Ecole des Hautes Etudes Commerciales, Montreal, and I found him personally a very agreeable person, though perhaps somewhat eccentric. His abilities and his qualifications are of the first order. He did not, however, get on well at the University of Montreal, both on account of his advanced views and on account of the ill-feeling that always existed between him and the late Monsieur Prefontaine, then President or Chairman of the Ecole des Hautes Etudes Commerciales.

Yours very faithfully,

Robert In Sugars

Director - Secretary.

RMS/B Encl.



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# ÉCOLE FRANÇAISE DE PAPETERIE Reconnue par l'Etat (Décret du 8 Décembre 1922)

### UNERSITÉ DE GRENOBLE Institut palytechnique

Adresser la correspondance à M. le Directeur de l'Ecole

## ÉCOLE FRANÇAISE DE PAPETERIE

Reconnue par l'Etat (Décret du 8 Décembre 1922)

Grenoble, lette 13th May 1924.

The Rector

ue Siel University . Montreal (2.Q)

Cear Sir , I beg . to apply votichfully " to be suppoyed in the Forsts Instats Laboratories of your thisrasty - which. I have hear & from " Canatian students , are to be have firred to Ottawa -. Vioriously. Disfaros of chemistry (three years 13-16 ) at the Ecole is Hants Etailes - Montherf - analy head chemist of the Canadran presentend. Ottawa - Foods a Drugs. Cabora tour Queen Street I came back. to have - on Suty Furing The rear and since the end of the evan . I was teaching chemistry in Roman (Fustant chrimigue as Director) - and now. I am. liaching allulow " Enfer chemistry as wellas manufacture of Chemical Sulfs here an frewood Unitersity wind of the lost fire years . I was in the same time . counting herwish of the Dapeteries de France - which are many facturing Asuncil. Zulps ( Sucht pulp - For a pulp and Shaw Julp by the Se Vains Process -The Direction , I am taking . is the Research Cabo atonico ( Sapeleurs de Prance - De - Papier , fining 24 in fine , and In Deputene 23 horsend. 23 py 1102) - and my pertition large - of Vangunges and Documentation

are titles which allow me - to bring any researches no the

Cariation Fordo Tabaratorico - on the right way. I shalt be suy thankfull to you the my repeterfully 0= U. Brot .. Brit Emel 72. Junoble

February 4th, 1924.

Dr. John S. Bates, Bathurst Company Limited, Bathurst, N. B.

Dear Dr. Bates :-

January 30th. I thank you for your letter of

As you know, Sir William is now in England and cannot be approached again until his return. I promise you to find occasion to take the matter up with hom.

About a week or ten days ago the Chairman of the Research Committee of the Pulp and

Paper Association came to see me and told me that the Association had made available a sum of about \$40,000. for the purpose of aiding the Government research in the pulp and paper field. He said that his Association were most anxious that this further research be carried out at the pulp and paper division of the Forest Products Laboratories. He seemed greatly interested in the plans we have in view for making the whole of our Chemistry Building available for Chemistry and our using the Eddy bequest to add another expert Chemist to the staff,- one who has given special study to the problems of the paper industry. I hope we may establish a close liaison with that industry. As you know, the lack of funds handicaps seriously the University's efforts.

Yours faithfully.

BATHURST COMPANY LIMITED

MANUFACTURERS OF RAILWAY TIES OR SLEEPERS "BEAVER BRAND" CEDAR SHINGLES. SPRUCE & PINE LUMBER ROUGH OR DRESSED UNBLEACHED SULPHITE PULP AND KRAFT PULP GROUND WOOD PULP NEWS PRINT PAPER



HEAD OFFICE HEAD OFFICE MILLS YARDS AND WAREHOUSES BATHURST, NEW BRUNSWICK, CANADA CABLE ADDRESS<sup>®</sup>WONGAN<sup>®</sup> BATHURST, N.B. CODES ABC 4<sup>TH</sup> & 5<sup>TH</sup> EDITION-WESTERN UNION

> BATHURST January 30, 1924.

Sir Arthur W. Currie, G.C.M.G., K.C.B., Principal, McGill University, Montreal, Canada.

Dear Sir Arthur:

Referring to our correspondence of December, I have received a brief reply from Sir William Price through his private secretary. Sir William had hoped to reply personally but pressure of work had prevented going into the matter carefully before leaving for England.

Now that the subject has been opened perhaps you will find some way of attracting Sir William's further attention. Undoubtedly he is in sympathy with forest products research but is too busy just now to study the soundness of the present proposal.

From the newspaper reports I understand that the Canadian Pulp and Paper Association has granted financial aid to the Forest Products Laboratories in line with our Research Committee's recommendation. This should be an added reason for planning a new building and at the proper time the proposal might be brought to the attention of various men who might influence the result. After being connected with this research movement for ten years I really believe we have hit upon the right basis for permanent cooperation.

Yours very sincerely,

JSB/J.

7. P. Lab. John S. Bates ) Pri? - remarch 2) wood products

December 17th, 1923.

Dr. John S. Bates, Bathurst Company Limited, Bathurst, N. B.

Dear Dr. Bates :-

I am very much obliged for your letter of the 14th of December and wish to thank you for taking up the question of a Research Building with Sir William Price. I trust that your efforts to arouse his interest will be successful and that before long we shall have the facilities at which you are aiming.

I shall, of course, hold myself may be convenient to him.

Yours faithfully,

Principal.

## BATHURST COMPANY LIMITED

MANUFACTURERS OF RAILWAY TIES OR SLEEPERS "BEAVER BRAND" CEDAR SHINGLES SPRUCE & PINE LUMBER ROUGH OR DRESSED UNBLEACHED SULPHITE PULP AND KRAFT PULP GROUND WOOD PULP NEWS PRINT PAPER



HEAD OFFICE MILLS YARDS AND WAREHOUSES BATHURST, NEW BRUNSWICK, CANADA CABLE ADDRESS<sup>®</sup> WONGAN<sup>®</sup> BATHURST, N.B. CODES ABC 4<sup>TH</sup> & 5<sup>TH</sup> EDITION-WESTERN UNION

#### BATHURST

December 14th, 1923.

Sir Arthur W. Currie, G.C.M.G., K.C.B., Principal, McGill University, Montreal, Canada.

Dear Sir Arthur:

Your kind letter of November 29th reached me some days ago and I appreciate the clear way in which you have outlined the situation in connection with the proposed forest products building. After further consideration I have written Sir William Price rather fully pointing out that a university research building would serve to unite the government, McGill and the wood-using industries on a broad, permanent basis and that no name in Canada would be more appropriately linked with a forest products building than the name of the Price family. In asking for his consideration and advice on the subject I have suggested that you would naturally be able to give him a clearer view of the situation.

My belief in the value of research is so firm and my desire to see it an established fact is so great that I sincerely hope with you that Sir William will lead the way. I shall of course notify you of any reply from him and trust that you will find a suitable occasion to confer with him.

Yours very sincerely,

John S. Bates

JSB/J.

November 29th, 1923.

Dr. John S. Bates, Bathurst Company, Limited, Bathurst, N. B.

Dear Dr. Bates :-

Dr. R. F. Ruttan has written to me with reference to his conversation with you last Saturday regarding the possibility of getting a building presented to the University for the joint use of the Forest Products Laboratories and the Department of Chemistry. Dr. Ruttan has also given me a copy of your letter of November 1st last addressed to him.

I do not think that any good purpose would be served by approaching the Government before we could give them an assurance that a suitable building would be provided. As the matter stands with them they have promised us that the Forest Products Laboratories will not be removed from Montreal if suitable accommodation is provided here. The Minister has written to me that he would prefer that the work of the Laboratories be continued here. I feel that you can safely give Sir William Price the assurance that as far as the Government is concerned they would continue to spend on the work the amount they now provide.

On our part we would set aside the Eddy bequest for the purpose of establishing a research professorship in Chemistry and would secure a man specially qualified to deal with the problems of wood chemistry. On the part of both the Government and the University the assurance could be given that facilities would at all times be available for research work by any of the staff of the pulp and paper industry. I am quite sure no objection would be raised to members of such staff using the

#### Dr. John S. Bates - 2 -

to conduct a special line of investigation.

It would be the hope to establish here an institution where the Government, the University and the Pulp and Paper industry could work together in order to solve the problems and difficulties of the wood industry. If Sir William would say that, provided this co-operation was assured, he would provide the building, I know the University would provide the land and I believe the Government would give at least the same measure of support to the Laboratories as they are now extending. I do most sincerely hope that the reaction of Sir William to the suggestion you intend to make to him will be favourable. If I can be of any service to you I shall most gladly help in any way you think possible.

Assuring you of the cordial co-operation and support of the University and wishing you every success, I am,

Ever yours faithfully,

November 29th, 1923.

Dr. R. F. Ruttan, Chemistry Building, McGill University.

My dear Ruttan :-

I am enclosing herewith copy of a letter to-day addressed to Dr. John S. Bates.

Yours faithfully,

## McGILL UNIVERSITY

DEPARTMENT OF CHEMISTRY

R. F. RUTTAN, DIRECTOR

MONTREAL. 26th November, 1923.

Sir Arthur Currie, Principal, McGill University.

Dear Sir Arthur:-

On Saturday last I had a talk with Dr. John S. Bates regarding the possibility of getting a building presented to the University for the joint use of the Forest Products Laboratory and the Department of Chemistry. The suggestion is that someone, probably Sir William Price of Quebec, should put up a building, bearing his name, which would house the research work in connection with the investigation of cellulose conducted by a professor in the Department of Chemistry and the staff of the Forest Products Laboratory which would be increased and improved by recommendations and assistance from the Pulp and Paper Association. If Dr. Bates is assured of co-operation on the part of McGill and the Department of Inland Revenue, he is willing to sound Sir William Price.

I am enclosing you copy of the letter which I received from Dr. Bates some time ago and to which I referred in conversation with you. Personally, I think that, so far as the Department of Chemistry is concerned, such an arrangement would work admirably but I am afraid of the Government at Ottawa.

I am,

Enclo. Letter.

RFR/JH

Sincerely yours ielace

Director of Chemistry.

BATHURST COMPANY LIMITED

Bathurst, November 1, 1923.

Dr. R. F. Ruttan, Dept. of Chemistry, McGill University, Montreal, Quebec.

COPY .

Dear Dr. Ruttan:-

As you know, I made the suggestion to Mr. E. P. Cameron that it may be possible to find one or more leaders in the pulp and paper industry who would be interested in presenting to McGill a suitable building to provide a permanent basis of co-operation in research on forest The assumption is that there would be accomproducts. modation for the Forest Products Laboratories, which would be operated by the Government on their appropriation of over \$100,000. per year, and that there would also be accommodation and co-operation whereby the pulp and paper industry could carry out special research at their own expense. Furthermore, it is assumed that McGill would be interested in providing the Eddy bequest or some other fund for work in some way related to forest products and would round out the co-operation by training students and handling cellulose research, etc.

I am merely writing to know what you think of the possibility and whether McGill would welcome a proposition of this kind. I have thought of placing the matter before Sir William Price in a personal way by reason of my great interest in the attainment of organized research for the pulp and paper industry. Naturally it would be unwise to take any step of this kind if there might be a re-action on the part of the University or the Government later. Of course it is only a chance that the donation would materialize but there is nothing like trying.

With best wishes.

Yours very truly, (Sgd.) John S. Bates.

JSB/J.

March Twentieth 1923.

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Edward Beck, Esq., Drummond Building, Montreal.

2 28

Dear Mr. Beck :-

Thank you very much for your letter of yesterday telling me of the action of the Executive Council of the Canadian Pulp and Paper Association re the Forest Products Laboratories.

Will you please convey to the Council the thanks of McGill for their interest in this matter.

Yours faithfully,

Principal.



# Canadian Pulp and Paper Association

DRUMMOND BUILDING

MONTREAL

Mar.19,1923.

General Sir Arthur Currie, McGill University, Montreal.

Dear Sir,

Your letter of Jan. 11th enclosing copies of correspondence with Honorable Chas. Stewart, Minister of the Interior at Ottawa, relative to the proposal to remove the Forest Products Laboratories from Montreal to Ottawa was laid before our Executive Council, at a meeting held in Montreal on March 15th.

A resolution was passed deprecating the proposed removal and suggesting to the Minister that no final deposition should be made of the Laboratories until the question of the establishment of a Mational Research Institute such as is now proposed is disposed of.

The Secretary was instructed to advise the Brincipal of McGill University and the Minister of the Interior of the action taken.

> Yours very truly, CAMADIAN PULP & PAPER ASSOCIATION

Edward Beck

Sedretary

EB/BC



Ottawa, Ontario, 13th February, 1923.

My dear Sir Arthur,

I have your letter of the 23rd ultimo. The Quebec Government have requested us to turn over our Montreal Laboratories to them. They have been advised of our intention to remove the Laboratories to Ottawa, and to operate them in future from the seat of Government.

We advised the Quebec Government that we would consent to their purchasing our plant and equipment now at Montreal excepting our paper machine. As to what disposal they will make of any equipment they might obtain from us should they desire to purchase it we have, of course, no knowledge.

Yours faithfully,

Chas Sterout

General Sir Arthur Currie, G.C.M.G., K.C.B., LL.D., Principal, McGill University, Montreal, Quebec.

### DRAFT.

MONTREAL, September 6th, 1922.

Honourable Charles Stewart, Minister of the Interior, O t t a w a, Ontario.

Dear Mr. Stewart:

In the absence of Sir Arthur Currie, I have been forwarded your letter to him of the 29th ultimo relative to the removal of the Forest Products Laboratories from Montreal to Ottawa.

It appeared to us when the question was first mentioned that there would be some difficulty in putting the present building in a good state of repair so as to enable the work to be carried on there and it was because of this fact that Sir Arthur wrote you. The Governors have since considered the matter further and are of the view that we can provide the necessary facilities and accommodation.

As I informed you some time ago, I have always felt that it would be a distinct step backwards to remove the Laboratories from the University where the work can be prosecuted with advantage both to the Government and to the College.

If, therefore, you are willing to permit the present arrangement to continue, we will take the necessary steps to make the accommodation adequate.

Yours very truly,

Chancellor.



# Canadian Pulp and Paper Association

DRUMMOND BUILDING

MONTREAL

Jan. 12,1923.

Gen. Sir Arthur Currie, C.C.M.G., K.C.B., LL.D., Principal and Vice-Chancellor, McGill University, Montreal.

Dear Sir,

This is to acknowledge receipt of your letter of Jan.11th in which you advise that the Department of the Interior has served notice on McGill that they must provide new quarters for the Forest Products Laboratories or suffer the removal of the laboratories to Ottawa.

We quite agree with your view that in asking McGill to go to an outlay of \$100,000 or more in order to accommodate the Laboratories the government is asking more than McGill should be called upon to do.

There seems, however, to be no way out of the alternative and it looks as though the deputy minister would achieve his long cherished desire of taking the Laboratories to Ottawa.

We will place your communication before our Executive Committee at their next meeting and should they desire to take any action in regard to it we will advise you.

> Yours very truly, CANADIAN PULP & RAPER ASSOCIATION

Edward Beck

secretary

EB/BC

Details of Space		Present Accommodation in sq. ft.	Future Require in sq.	
1. Pulp and Paper Division Paper mill Beater room Wood room Digester house		2400	2400 1200 630 600	
Chemical laboratory Office space	Total	1642 <u>75</u> 4117	1200 <u>370</u>	6400 V
2. Timber Tests Division Testing laboratory			1100	./
Office and computing storage	g and specimen Total	<u>1389</u> 1389	800	1900
3. Wood Preservation Division Laboratory	on	116	340	
Office space Experimental lab. Creosote storage	Matal.	116 712 <u>160</u>	200 1060 550	0.5 5 6
4. Timber Physics Division	Total	988		2150
Laboratory Office space Pathological labora	tory	325 259 <u>593</u> 1177	320 230 800	1350
5. Administration Superintendent's off	51.00	251	250	
Asst. Supt. office Clerical Stenographers Vault Library Exhibits office Exhibits Draughting Lavatories		251 235 244 366 140 400 160 725 394 75	250 170 420 375 525 150 1360 200 75	
Photographic and dan	rm rooms Total	267 3257	<u>850</u> 4450	4450
6. Accessories Saw-mill Storage sheds		576 1576	1000 1000	
Carpenter shop, work machine-shop Coal and boiler room Dry kiln and seasoni	1	1973 - 500	2100 350	
be outdoors)	Total	4625	2100	6550
	Total	15553	2	22800
Timber Tes Paper Mill	rvation Lab.	28 ft. 14 ft. 14 ft. 12 ft.		

Details of Space	Present Accommodition in square ft.	Future Requirements in square ft.
1. Pulp and Paper Division	4117	6400
2. Timber Tests Division	1389	1900
3. Wood Preservation Division	988	2150
4. Timber Physics Division	1177	1350
5. Administration	3257	4450
6. Accessories	4625	6550
Totals	15553	22800

January Twenty-third 1923.

Hon. Charles Stewart, Minister of the Interior, Ottawa.

Dear Mr. Stewart :-

With reference to the last paragraph of your letter of the 18th of January, I note that the Province of Quebec are asking you to turn over the plant and equipment at the Montreal Laboratories to them.

It would be strange if this plant and equipment should eventually find its way to the University of Montreal. The Provincial Government sometimes makes what appear to us like gifts to the University of Montreal, though when we ask the Government about the gifts, we are told that they are only that they are only loans, as for example, the \$100,000. worth of radium which the Government hought, was not given to the University of Montreal, but merely loaned. Perhaps, the plant and equipment which you are giving to the Province of Quebec may be loaned to the University of Montreal.

Yours faithfully.

Principal.



OTTAWA 18th January, 1923.

My dear Sir Arthur Gurrie,-

I have your letter of the llth instant confirming the decision which you conveyed to Mr. Cameron of our Forestry Branch personally, namely that the University authorities cannot see their way clear to provide the accommodation necessary for the retention of the Forest Products Laboratories at Montreal.

with arrangements for the removal of the Laboratories to Ottawa.

A request has been received from the Government of the province of Quebec asking us to turn over our plant and equipment at the Montreal Laboratories to them. Negotiations in this connection are under way now and it is possible that the Quebec Government may take over this equipment with the exception of our paper machine which we cannot spare.

Yours faithfully.

Sir Arthur W. Currie, G.C.M.G., K.C.B., LL.D., Principal, McGill University, MONTREAL.

Chas Stewark

January Eleventh 1923.

Honourable Charles Stewart, Minister of The Interior, Ottawa.

Dear Sir:-

At my final interview with Mr. Cameron of your Forestry Department I told him that I would write formally to you acquainting you with the decision of McGill University re your demand that we provide rent free suitable quarters for the Forest Products Laboratories, failing which it was your intention to remove the Laboratories to Ottawa.

When the Chancellor of the University (Mr. E. W. Beatty) wrote to you on the 6th of September it was our hope that the premises now occupied at 700 University Street could be put in such a condition of repair and safety that you would be justified in leaving the Laboratories where they are. Our engineers have decided that it would be unwise to make such an attempt.

I understand that if a new building were erected to give you the space required that building should furnish a floor space of 22,800 square feet and that some of the rooms would require ceiling heights of 28 feet, others from 12 to 14 feet. As the requirements for the Pulp and Paper division (6,400 sq. feet) could be easily provided for by small additions to the present Paper Mill Building, and as your requirements for the Testing Laboratories (1,100 sq. feet) already exist in the Engineering Building of the University, we might reduce your total building requirements to 15,300 square feet (22,800 less 7,500). To provide such a building harmonising with the other buildings on McGill's campus would require an expenditure of University funds well Hon. Charles Stewart - 2 -

over \$100,000. without taking into consideration the value of the land. We would not be justified in spending such an amount in order to keep the Laboratories here, and the Board of Governors feel that there is nothing further that we can do towards that end.

There is little association between the Laboratories and McGill at the present time, the Laboratories making use of McGill far more than McGill is making use of them, but we do foresee that in the near future we might be able to work out an arrangement with the Laboratories, particularly with the pulp and paper division, which would result not only to our mutual advantage but in a great service to the pulp and paper industry. Now we shall have to work out the liaison with that industry in another way.

I have yet to hear an opinion from any one interested in scientific research or engaged in the industries which the Laboratories seek to serve favourable to your contemplated action of removing the Laboratories from Montroal to Ottawa.

Yours faithfully,

Principal.

January Eleventh 1923.

J. N. Stephenson, Esq., Editor, Pulp & Paper Magazine, Gardenvale, Que.

Dear Sir:-

I am forwarding herewith copy of a letter which I am to-day sending to the Honourable Charles Stewart, Minister of the Interior, re the Forest Products Laboratories.

The Minister arbitrarily demands that we furnish suitable accommodation or he will remove the Laboratories to Ottawa. The cost of providing the accommodation is more than the University is justified in undertaking at the present time and I am afraid the Minister must be allowed to do with the Laboratories as he pleases. On many occasions by word of mouth and by letter I have endeavoured to persuade him that he was giving approval to a retrograde step, but the influence of the Deputy, apparently, is very strong. Old correspondence on this subject reveals the fact that the Deputy persistently opposed the establishment of the Laboratories here.

Only a few years ago there was some consideration given to the question of the Government paying rent to McGill for the building on University Street. One can scarcely understand the change when the Government now demands that we spend more than \$100,000. in order to accommodate them.

Yours faithfully,

Principal.

January Eleventh 1923.

Edward Beck, Esq., Canadian Pulp & Paper Association, 511 St. Catherine St. West, Montreal.

Dear Sir:-

\* . .

I am forwarding herewith copy of a letter which I am to-day sending to the Hon. Charles Stewart, Minister of the Interior, re the Forest Products Laboratories.

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Yours faithfully,

J. J. HARPELL, Pres. and Man. Dir.

> Eastern Manager: A. S. CHRISTIE, Gardenvale, Que.

J. N. STEPHENSON Editor-in-chief

Western Manager: H. W. THOMPSON, Toronto, Ont.

# Pulp and Paper Magazine of Canada

Published weekly by the Industrial & Educational Publishing Company Limited

GARDENVALE, Que.

Jan 16th, 1923.

Sir Arthur Currie, Principal, McGill University, Montreal.

Dear Sir.

I feel greatly honored in having you send me with your kind letter of January 11th, a copy of your letter to the Minister of the Interior.

I take the liberty of enclosing a copy of an editorial that has been roaming around in my mind for some time and which was crystal/ized by the receipt of your letter. Most of the material in this editorial is an expression of a conversation between Mr. Bryant, Chairman of the Technical Section, and myself following the conference in your office last month.

Sincerely Yours.

JNS/BP.

JASA Jelumone EDITOR.

P.S. If there are any points in this editorial that you think our friends in Ottawa might take serious exception to, a telephone call from yourself or your secretary to me at Ste Anne de Bellevue 165 will be greatly appreciated.

ASK FOR INFORMATION ABOUT HOME STUDY COURSES IN PULP AND PAPER MAKING

REPORT OF THE COMMITTEE ON ABSTRACTS AND PUBLICATION.

To the Technical Section of the Pulp and Paper Association.

During the past year your committee provided for 140 pages of abstracts of current articles which were published in the Pulp and Paper Magazine and paid for by that journal. These pages have been reprinted as a bulletin of the Technical Section and distributed to members through the secretary's office. An index of the abstract is in preparation.

It has been suggested that instead of reprintim the abstracts in full shortly after publication in the magazine, it might be better in the end to hold merely the first three or four lines indicating the titles of the article and the place where it appeared, then to collect these at long intervals, say at once or twice a year, and reprint what would be an index of the year in abstract form. The opinion of the Section is awaited by your committee as to what should be done in this respect.

At the beginning of the New Year, the chairmanship of the Abstract Committee of the Technical Association of the Pulp and Paper Industry, was taken over by Mr. Charles J. West, leaving Mr. Ross Campbell with more time to devote to his work as chairman of the Dyestuff Committee. We wish to express at this time our deep appreciation of the cordial cooperation and ready assistance of Mr. Campbell during the several years of his chairmanship. The handling of the abstracts will continue to be carried on cooperatively as has been done in the past.

The chairman had the pleasure of meeting Mr. Arthur Baker of Greenhithe. England, the first chairman of the British Tecnical Section, and as a result of conferences it seems probably that the British Technical Section will join with the Technical Association and our own Section in the matter of abstracts. The abstract program of the Technical Association will be curtailed slightly by the restriction of articles dealing with engineering matters and with the forestry. Your committee however, feeling the great importance of forestry matters to the Technical Section and to the Woodlands Section, have decided to continue this fractors service and have arranged with the Pulp and Paper Magazine to publish abstracts of articles dealing with forestry under the department entitled "With the Woodsmen"

Bound copies of the abstracts for 1922 can be had from the Pulp and Paper Magazine at \$3.50 per volumes.

There are now ready for distribution copies of the transactions and proceedings of the Technical Section for 1922. This volume contains papers, reports, and discussions presented at the annual meeting last January and a brief account of the summer meting of the Technical Section MANEXIMST at the Abitibi Pover & Paper Company, Ont., It includes also the bylaws and a biographical list of members of the Section. This list of members is not up to the minute but will be kept revised from how on as the committee has under consideration the preparation of a semi-annual volume.

> Respectfully submitted, J.N. Stephenson, CHAIRMAN.

2.

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> Respectfully submitted. J.N. Stephenson, CHAIRMAN.

2.

Sir antur Currie tum trank D. adams-

MEMORANDUM concerning a meeting of certain members of McGill University and certain representatives of the Pulp and Paper Industry held in the Office of General Sir Arthur Currie on the afternoon of December 13th. 1922.

Representatives of the pulp and paper industries expressed themselves as interested in two kinds of research:-

(1) Fundamental research in which the properties and character of cellulose - which material is the basis of their industry - are studied. This they think could best be carried on at the University.

(2) Investigation directed to the solution of the various problems which are continually presenting themselves in the manufacture of pulp and paper, together with investigations looking to the improvement of the processes which are at present in operation. This they think can best be done at an institution such as the Forest Products Laboratory.

They are of the opinion that the Forest Products Laboratory should remain in Montreal and not be removed to Ottawa. They state that they have obtained comparatively little benefit from the work of their Laboratory up to the present time, not on account of any fault of the Laboratory as an institution, but owing to the fact that it has been impossible to retain the services of able men to direct the laboratory, this in its turn being due to the fact that the salaries paid in the Forest Products Laboratory are so small that so soon as a man showed that he had marked ability he was at once offered a much larger salary by one of the great pulp and paper companies and his services were thus lost to the Forest Products Laboratory. In this way valuable work which was commenced was never finished, nor was the work done ever collated and published. This statement applies to the pulp and paper division of the Forest Products Laboratory, it being understood that a somewhat more marked success had been achieved by the departments dealing with Timber Physics and Wood Preservation. These, however, are of no direct interest to the manufacturers of pulp and paper.

To sum up - the representatives of the pulp and paper industry were of the opinion that they might receive marked benefit from the Forest Products Laboratory, but they had failed to do so up to the present time.

The representatives of the industry expressed their opinion that the industry would support any institution from which it derived benefit. They would be glad to contribute to any research body which would "deliver the goods."

Mr. Sabiton seemed to be rather doubtful as to whether the industry would at the present time give a direct contribution to an institution such as the Forest Products Laboratory. He said that the pulp and paper companies were considering the appointment of a Director of Research who would correlate and make use of the partial facilities existing for research at different mills in the St. Maurice district, and thus secure valuable results which would be available for the industry as a whole.

They fully recognize and appreciate the difficulties of dual control which would result from any direct support given by the pulp and paper industry to the Forest Products Laboratory

-2-

being, as it is at present constituted, a branch of the Government service.

It was suggested that the best way to secure cooperation between the Government and the pulp and paper industry, would be for the Government at Ottawa instead of maintaining the Forest Products Laboratory as at present, to give a grant of money equal to that which is now devoted to the Laboratory which grant might be supplemented by contributions from the pulp and paper companies and by assistance, other than that of a financial nature, from the University, the whole to be managed and administered to the interest of Research by a special board.

-3-



October 2nd, 1922.

My dear Sir Arthur:

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I enclose herewith a letter received from the Honourable Charles Stewart in reference to the Forest Products Laboratories.

In your absence I wrote him as per copy attached.

I think it is essential that we should put Molson House in a proper state of repair to carry on the Forest Laboratory work there. You will observe, however, that Mr. Stewart does not commit himself to retain the Laboratories in Montreal, and it will be necessary for us to have a definite understanding with him that in the event of our going to this expenditure there will be no further attempt made by the Government to remove these Laboratories to Ottawa.

Yours very truly.

Sir Arthur Currie, K.C.B., Principal, McGill University, Montreal. Que.



Ottawa, Ontario, September 25, 1922.

Dear Mr. Beatty -

I have your letter of the 6th instant and notethat the Governors of the University are prepared to provide the necessary facilities and accommodation for the Forest Products Laboratories in Montreal.

In view of this, the whole matter is receiving further consideration.

Yours sincerely,

Chas Stewart

E. W. Beatty, Esq., B.A., K.C., Chancellor of McGill University, Nontreal, P.Q.

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September 6th, 1922.

Dear Mr. Stewart:

In the absence of Sir Arthur Currie, I have been forwarded your letter to him of the 29th ultimo relative to the removal of the Forest Products Laboratories from Montreal to Ottawa.

It appeared to us when the question was first mentioned that there would be some difficulty in putting the present building in a good state of repair so as to enable the work to be carried on there and it was because of this fact that Sir Arthur wrote you. The Governors have since considered the matter further and are of the view that we can provide the necessary facilities and accommodation.

As I informed you some time ago, I have always felt that it would be a distinct step backwards to remove the Laboratories from the University where the work can be prosecuted with advantage both to the Government and to the College.

If, therefore, you are willing to permit the present arrangement to continue, we will take the necessary steps to make the accommodation adequate.

Yours very truly;

Chancellor.

Honourable Charles Stewart, Minister of the Interior, O t t a w a, Ontario. DRAFT.

MONTREAL, September 6th, 1922.

Honourable Charles Stewart, Minister of the Interior, O t t a w a, Ontario.

Dear Mr. Stewart:

In the absence of Sir Arthur Currie, I have been forwarded your letter to him of the 29th ultimo relative to the removal of the Forest Products Laboratories from Montreal to Ottawa.

It appeared to us when the question was first mentioned that there would be some difficulty in putting the present building in a good state of repair so as to enable the work to be carried on there and it was because of this fact that Sir Arthur wrote you. The Governors have since considered the matter further and are of the view that we can provide the necessary facilities and accommodation.

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If, therefore, you are willing to permit the present arrangement to continue, we will take the necessary steps to make the accommodation adequate.

Yours very truly.

Chancellor.

## McGILL UNIVERSITY MONTREAL.

SECRETARY AND BURSAR'S OFFICE.

September Fifth 1922.

E. W. Beatty, Esq., President, Canadian Pacific Railway, Montreal.

Dear Mr. Beatty:-

#### FOREST PRODUCTS LABORATORIES.

I enclose copy of a letter addressed to the Principal by the Hon. Charles Stewart, which I think probably needs immediate attention.

In view of the attitude taken by the Board of Governors at its last meeting in regard to this matter, being such as to indicate that they would like to see these Laboratories remain connected with McGill, I thought that possibly you might be willing to say at this time that the University was prepared to furnish proper accommodation for them.

I have written to Mr. Stewart today acknowledging receipt of his letter and stating that he might expect to hear from you in the course of a few days.

Mr. Lawrence's estimate for the cost of furnishing the accommodation in question has been held up pending the return of the Government Superintendent here. E. W. Beatty, Esq. - 2 -

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I believe he is expected this week. I can, however, give you an approximate figure within a few days.

Yours faithfully,

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Secretary.

### MINISTER OF THE INTERIOR

Ottawa, Ontario, August 29th, 1922.

Dear Sir Arthur Currie:-

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Upon my return to the City, I have had placed before me your correspondence relative to the removal of the Forests Products Laboratories from Montreal to Ottawa, and I note that the McGill University is unable to provide, rent free, suitable accommodation for these Laboratories.

It is regrettable that you appear to be unable to secure proper accommodation. I have been holding space here for some considerable time awaiting your decision, and I fear I shall have to give the Public Works Department an answer in the very near future. Owing to the inadequacy of the building on your premises and the serious condition it is in at the present time, I fear that it will be necessary for my Department to take action as indicated.

Believe me,

Yours faithfully,

(Sgd.) CHAS. STEWART

Sir Arthur Currie, G.C.M.G., K.C.B., Principal, McGill University, Montreal. Memorandum re. Forest Products Laboratories and their Relation to McGill University, Prepared for the Information of the Principal of McGill, Sir Arthur Currie.

Dear Sir Arthur:-

The Forest Products Laboratories are under the Forestry Division of the Department of the Interior, of which Sir James Lougheed is Minister, the Deputy Minister being Mr. W. W. Cory. Mr. R. H. Campbell is Director of the Forestry Branch and in immediate control of the Laboratories. Mr. Campbell is an invalid and, although he has not been superannuated, he is not taking any active part in the work of the Forestry Branch. Mr. E. H. Finlayson is carrying on Mr. Campbell's duties.

Mr. Cory, the Deputy Minister, has from the very beginning advocated the transfer of the Forest Products Laboratories to Ottawa. Sir James Lougheed gave a snap decision last spring at a meeting with Mr. Kynoch, supporting Mr. Cory's request to have the Laboratories removed to Ottawa, since then nothing has been done. Mr. Finlayson will not be here before the end of next week or the beginning of the week after, and I have arranged with Mr. Kynoch to have an interview with him. According to Mr. Kynoch, Mr. Finlayson is not at all in favour of transferring the Laboratories to Ottawa. The only argument in favour of this change is that the Deputy Minister would be able to exercise a closer supervision over the work. He has never been in Montreal to visit the Laboratories.

The Laboratories were organized in the autumn of 1913, an arrangement having been made by which McGill University undertook to provide accommodation and to allow the use, without charge, of certain equipment in the Faculty of Applied Science. Dr. McIntyre was the first

superintendent

superintendent of the Laboratories. He retired within a year to accept a very lucrative post in one of the large paper and pulp industries in the United States. He was succeeded by Dr. John Bates, who took charge of the installation of the staff and of the buildings, 684-700 University Street, in 1914. Dr. Bates then obtained permission from the Department of Forestry to establish an Advisory Committee. This Committee consisted of the Director of the Forestry Branch, Mr. R. H. Campbell; Dr. Bates, representing the Laboratories; Dr. Adams, Prof. Mackay and Dr. Ruttan, representing McGill; Mr. Carl Riordon or his Manager, Mr. Thorne, representing the Riordon. Paper and Pulp Company; Mr. F. A. Sabbaton, representing the Laurentide Company; and Mr. J. Stadler, representing the Belgo-Canadian Company. This Committee met two or three times a year up to the autumn of 1919, since then it has not been called together. Dr. Bates resigned in 1919. Mr. William Kynoch was appointed in 1920 and is at present superintendent of the Laboratories. The old Molson house contains the offices and most of the laboratories. In addition there is a paper mill, housed in a building erected in 1918. In this there is a very valuable and complete paper machine and various accessories now in perfect running order. All of the apparatus and equipment necessary for experimental work in paper and pulp on a semi-commercial scale have been installed, with the exception of two large sized digestors for which plans and specifications have been prepared and which can be installed at once if the Laboratories remain here. The Molson house is in very bad condition but not dangerous, and could probably have its foundation strengthened at a comparatively small cost. Many other houses have been so treated in this vicinity.

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The Laboratories are now in good working order and carrying on research work, as well as technical service in connection with various products which could not be obtained elsewhere. The Laboratories, however, have not been able to obtain a specialist in paper and pulp to replace Mr. O. F. Bryant who resigned in 1918, or, what they need most, a highly trained cellulose chemist; owing to the small salaries offered by the Civil Service Commission, they lost Mr. Janson in 1918, one of the best cellulose chemists in America, who was induced to go to the United States. At present there are thirty-five employees, of whom about twenty-four or twenty-five are technicians.

The attitude of the Minister and of the Deputy Minister is such as to rather discourage research work. They hold the opinion that research should be carried out by the industries themselves, rather than by a Government bureau. Hence it is evident that they wish to confine the activities of the Laboratories, if they be moved to Ottawa, to technical service. The Laboratories have done more research work in the past than any other department of the Government, with the exception, perhaps, of the Department of Agriculture and the Mines Branch of the Geological Survey.

If the Laboratories remain in Montreal in close connection with McGill, it will be an encouragement to friends of the University to provide us with a Forestry Department and to supply a chemical engineer for the Department of Chemistry, who, while having the general qualifications and experience of a chemical engineer, would be a specialist on paper and pulp. If McGill were so equipped, it would be quite possible to make the University a centre of technical education in connection with Canada's greatest chemical industry.

Mr. Kynoch

- 3 -

Mr. Kynoch, who is an expert in timber and forestry, is very strongly in favour of keeping the Laboratories in Montreal and is willing, so far as is in his power, to cooperate with the University in establishing a school for training experts in paper and pulp. The Laboratories have obtained greater recognition by the public on account of their connection with McGill than they would as a Department of the Federal Government. All those immediately connected with the Laboratories recognize this.

If the Laboratories go to Ottawa in the near future, they will undoubtedly become routine departmental laboratories with no incentive or encouragement for research, and it would be difficult later on to make them part of a Research Institute. This latter course has been advocated by Sir George Foster. They would, however, lose the advantage of immediate contact with the University and its scientific branches, as well as not having access to such a library as we have in the Department of Chemistry. Personally, I consider the best interests of Canada and of . the Laboratories themselves can be served by keeping them in connection with McGill. If they be moved to Ottawa. this should be done later on when they could be made a special department in the Research Institute, where sufficient salaries would be offered to attract first class research men in cellulose and in the utilization of the waste products of the wood industry.

In discussing the question with Dr. Adams, he suggested that the University offer the Department the right to build a laboratory on the present site under favorable conditions. If that be refused, a powerful effort might be made to bring political influence to

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bear upon the Government by the University and the city.

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Respectfully submitted, A.J. Auturn

Department of Chemistry, McGill University, 22nd October, 1921.

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#### APPENDIX

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Extracts from a Report by Mr. Kynoch

## Should Forest Products Laboratories be Maintained in Canada?

The question whether Laboratories of this kind should be maintained in Canada admits of no answer but the most decided affirmative. Ample justification of this statement is furnished by considerations of which the following are a few which readily suggest themselves:-

(a) The per capita consumption of timber is, and has for many years been, steadily increasing in all the civilized countries of the world for which figures are available: wood is continually becoming more valuable commercially.

(b) The existing Canadian industries dependent upon timber are, in the aggregate, second in economic importance only to the agricultural industries: timber is Canada's most important purely natural product.

(c) Canada is easily the leading timber-producing country in the British Empire. Therefore timber research in this country possesses an imperial as well as a national significance.

(d) Research applied to forest products unquestionably presents great economic possibilities as proved by what has already been accomplished in this field, particularly in the United States.

(e) The foundation of a first class Forest Products Laboratory has already been solidly constructed at our Laboratories.

#### Forest Products.

The term forest products, in the sense in which it is here used, is a somewhat elastic one. It refers not only to the natural and immediate products of the forest but includes also all articles or commodities manufactured therefrom. More particularly therefore the function of the Forest Products Laboratories is research and technical service in connection with:-

- (a) Every article in the manufacture of which timber is directly utilized, e.g. railway ties, furniture.
- (b) Derived products, e.g. pulp and paper, artificial silk, alcohols, acetic acid.
- (c) Minor products, e.g. turpentine, essential oils, resins.
- (d) Utilization of byeproducts or wastes now worthless, many of which are of potential or possible commercial value, such as waste sulphite liquor (containing over 40% of the original wood material), sawdust and other wood wastes, barks.

Extract from "THE PULP AND PAPER MAGAZINE." February 16th, 1922.

#### "PULP AND PAPER AT MCGILL".

It is hardly more than once in a lifetime that an opportunity like the present comes to a University for establishing a work that will have such a wide influence as would the establishment of a course in pulp and paper making at McGill University. There is no educational institution on the continent better provided with equipment for all the work properly incident to such a course, as the well-known university so ably presided over by the world renowned Gen. Sir Arthur Currie. It would bebut another instance of Sir Arthur's foresight and initiative to recommend and assist in the establishment of Canada's first school of pulp and paper menufacture. There is no industry in Canada which would profit more from a specialized course of this character and there is none better able or more inclined to give willing and helpful co-operation.

The present is the most opportune time that could possibly be conceived. The announcement has just been made of the munificient bequest of Mrs. E.B. Eddy in the establishment of a chair of Industrial Chemistry, with particular reference to the working out of problems in the pulp and paper industry. There is no name in Canadian Industry more highly respected than that of the man who established and built up the great manufacturing enterprise at Hull, a name that is known the world over as a manufacturer of pulp and paper, matches, lumber and numerous other articles produced from wood. It is natural and fitting then, that the Mrs. E. B. Eddy chair should carry with the obligation that the endowment should be devoted particularly to the study of problems and giv-

ing instruction in subjects connected with wood and its utilization. There are few chemical industries in Canada that do not in some way touch upon the chemistry of wood so that this subject becomes very near being the keynote of industrial chemistry in Canada. Certainly the pulp and paper industry, apart from the source of this bequest, has a proper claim to the major activities of such a professorship. There are few lines of industrial activity which hold greater promise of development or which have greater need for high class research work than is to be found in the many problems confronting those interested in the products of the forest. These problems range all the way from many puzzling points in the fundamental chemistry of the wood itself, even going back to the soil and the atmosphere where the tree grows, and on down through the many processes of conversion to the properties of pulp and paper and the elusive molecules of the mysterious substances in the waste liquors. Pages can be written simply in the tabulation of the problems that are even now pressing for solution. It is a curious fact, furthermore, that the attack on one problem is almost sure to open up three or four more that depend on it and that in some cases must be solved before the original line of research can be followed to completion.

Instruction in pulp and paper subjects and research in fundamental problems to be most effective, requires familiarity with, or expression in terms of mill equipment. The proximity of the well equipped paper mill of semi-commercial size at the Forest Products Laboratories of Canada which are housed in McGill property furnish unsurpassed opportunities. Besides the paper making equipment already installed and only occasionally used, there was recently built an additional

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building designed to accomodate two digesters, one for pulp making by acid processes, and another for alkaline processes. Specifications were worked out for this equipment through the cooperation of the advisory committee to the laboratories appointed to the Technical Section of the Pulp and Paper Association so that the apparatus could be ordered and installed without delay. In fact, it is understood that there has been an appropriation of the Dominion Trusty Branch for this purpose.

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Mention was made in these columns last week of the desirability of a closer cooperation between the University and the Laboratories and now that the announcement has been made of the endowment of the Mrs. E.B.Eddy Chair, it seems that nothing should stand in the way of working out an arrangement that would be most beneficial to all parties.

#### Ottawa, 28th May, 1921.

The Right Honourable Sir George E. Foster, P.C., G.C.M.G., Minister of Trade and Commerce, Ottawa, Ont.

Dear Sir George :-

I received your letter of May 25th with enclosure from Mr. J. B. Hunter regarding the transfer of the Forest Products Laboratory from Montreal to Ottawa.

You ask whether my, or all, of the work done at present in connection with laboratories, is necessary to the Departmental work. There is practically no routine Departmental work carried on in the Forest Products Laboratory. It is planned as a Research Laboratory for the development of forest products. The research work was carried on under three headings -

Paper and Pulp
Timber testing in all its branches
Timber preservation

A number of minor researches were carried on under Dr. Bates.

If we had a Research Institute, the work of the Forest Products Laboratory could be carried on in the Institute, utilizing the present excellent equipment now possessed by that Laboratory. If it were removed from the Department and placed under the Research Institute, it would have the moral and financial support of the whole Paper and Pulp Industry.

I regret to note that it is proposed to remove the Laboratory to Ottawa, as I am afraid the effect of transferring it to Ottawa will not be conducive to the spirit of investigation which has characterized that Laboratory in the past.

I am.

Very sincerely yours,

Administrative Chairman.

RFR/EMeC

July 14th, 1922.

Hon. Charles Stewart, Minister of the Interior, Ottawa.

Dear Mr. Stewart :-

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In reply to your letter of the 29th of June which I found awaiting my attention on my return from the West I regret to say that McGill University is unable at present to provide rent free accommodation for the Forests Products Laboratories which you would regard as suitable.

We have at present no accommodation to spare and the demands for increased accommodation by our several Departments are so great that we cannot look forward to supplying what you would regard as suitable quarters for some time to come. Nevertheless I think it would be a very great pity and a very great mistake to remove these Laboratories to Ottawa. In all seriousness I submit that the Government should accept the offer which I made on behalf of McGill, namely to supply the ground on which the Government could erect a suitable building to house the Laboratories and to carry on the work which they are at present doing. I doubt very much whether it will be cheaper for you to move these Laboratories to Ottawa than to provide yourself accommodation here. You will have to go to the expense of moving, to the expense of fitting up the building in Ottawa as a laboratory, to the expense of purchasing considerable necessary machinery and equipment which is owned by us here and which we allow the Laboratories to use. The cost of administration in Ottawa will be no less than if the buildings were administered here.

Your policy of breaking up the association of these Laboratories with a University which has a large staff of very eminent scientists engaged in research work Hon. Charles Stewart - 2 -

along kindred lines is so different to what prevails in many countries - even to what prevails in our own. Only the other day I read in the Toronto Globe that the Department of Agriculture (it did not say Provincial or Dominion) were establishing in Kingston. Ont. an institution which had to do with the dairying industry solely because of the available association with Queen's University.

I am not alone in believing that the removal of these Laboratories to the dull, official and routine atmosphere of Ottawa constitutes a retrograde step and one which you should not take. It is a step which is not approved by the Pulp and Paper industry, by the men who have the closest association with the Laboratories, nor by the leaders in research thought and activity in Canada.

Yours faithfully,

Copy to Mr. Marler.

Principal.



OTTAWA, 29th June, 1922.

My dear Sir Arthur,-

Adverting to previous correspondence and interviews which we have had relative to accommodation for the Forest Products Laboratories, I may say that unless suitable accommodation is provided rent free in Montreal, we will have to proceed immediately with the arrangements which we have made for the transfer of the Laboratories to Ottawa, where we have a suitable building in view as I cannot assume responsibility for retaining the Laboratories in the present unsafe and unsatisfactory quarters.

I would feel obliged if you would write me giving me an indication as to whether you have been able to secure the required accommodation for us.

Yours faithfully,

Chas Stewart

Sir Arthur W. Currie, G.C.M.G., K.C.B., LL.D., Principal, McGill University, MONTREAL.

#### McGILL UNIVERSITY,

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MONTREAL.

DEPARTMENT OF BOTANY FRANCIS E. LLOYD MacDonald Professor of Botany CARRIE M. DERICK Professor of Morphological Botany

15 June, 1921.

Sir Arthur Currie, Principal, McGill University.

My dear Sir Arthur:

My attention has been drawn on several occasions lately, but in a quite informal way, to the possibility of the Forest Products Laboratory being removed from McGill to Ottawa.

Should this be done, I for my part would regret it, for the reason that, with our assured equipment for botanical work, the Department of Botany will be in a position to cooperate effectively with the Forest Products Laboratory in giving special instruction in matters relative to certain economic problems, as for example, the problem of paper pulp diseases. I mention this in particular, because we are now planning for work along this line.

Mention has been made of the possibility of having here a school for paper manufatture. This proposal may serve to illustrate that we have the possibilities in our various university departments concerned a splendid opportunity of doing just this sort of thing. This Department could contribute larged to this work, and I am anxious that this should be done. Professor Derick concurs with me in this.

I beg to inclose a memorandum covering this question, and to ask you, if I may, to take the matter under consideration from the University point of view. I realize that the problem of housing the Forest Products Laboratory is a difficult one because of the condition of the premises now occupied. But I understand that after all there is no danger of the house falling in, even if it looks to a layman to be in a precarious condition.

Faithfully yours, They S.

sted : menso. He The above subject.

PULP AND PAPER MAGAZINE

February 9, 1922.

EDITORIAL :-:

#### MOVING THE FOREST PRODUCTS LABORATORIES.

There has been a rumor about for some time, that the Department of the Interior has been contemplating the removal of the Forest Products Laboratories of Canada from their present quarters in Montreal, to a new location at Ottawa. Correspondence with the Department confirms the rumor that this matter has been contemplated but no definite step has been taken as yet. The reason for, or the advantage in, making such a move was asked for but no information on that point has been forthcoming. We assume that there is neither.

From an occasional visit to the laboratories and a review of the work accomplished and that in progress, together with the problems pressing for solution, it seems perfectly clear that what is needed at the present time is a little more generous appropriation for staff in order to cope with the present situation rather than to spend money in moving to other quarters whose preparation for the work of the laboratories would be even more expensive.

Moving the Laboratories to Ottawa would be, in our mind, advantageous under only one circumstance; that is, the establishment of a Central Research Bureau which would include facilities for the investigation of the basic problems affecting Canada's important industries, particularly those founded on our unexcelled natural resources. Until such a central bureau is established and can supply facilities for investigations and immediate expert advice in pure science to those investigating industrial problems, it will be far better to leave the Laboratories in their present location where cooperation with one of Canada's leading Universities is not only possible but practicable.

There will come a time when certain departments of the Laboratories will require safe housing. The present structure, while attractive from the outside to one whose eye does not notice the considerable deviation of the walls from the vertical, and not inconveniently arranged inside, is becoming inadequate to the possibilities for service if better quarters were available. The building has been gradually sinking until it has really become unsafe and should be replaced. This building houses the Departments of Timber Physics and the general offices of the Laboratories but not the Pulp and Paper Division, which is accommodated in a separate building which is at present quite adequate to the needs of this department,

there having been erected a few years ago, an addition designed to accommodate digesters and other pulp making equipment. The property belongs to Mc-Gill University and it will not be unreasonable to expect that the advantages of association with the Laboratories might induce the University faculty to provide out of their new building fund for better housing of their tenants.

The advantages of association with the University go far beyond the mere question of shelter. There are at the University a number of timber testing machines which are in very frequent use by the Laboratories staff and also used for instructional work by the University staff. Part of this equipment belongs to the Laboratories and is installed at the University for convenience and other parts belong to the University and are at the disposal of the Laboratories staff. This makes it possible to have practically double the equipment that either institution could afford by itself. Further than this, the personnel of both institutions are at hand for consultation and mutual assistance. This cooperation between the University and the Laboratories has apparently been more extensively developed with regard to the mechanical and physical properties of timbers than has been the case with regard to the utilization of wood in the manufacture of pulp and paper. It is in this direction that we are most interested although we fully appreciate the value of the work done by the other departments, such for instance, as measuring of fibres, the examination into the causes of and remedies for the growth of fungus and the preservation of timber for mill roofs.

We have felt that the Dominion of Canada as a whole, and those interested in the Pulp and Paper Industry in particular, have seriously suffered from the lack of co-ordination between the faculty of Applied Science at McGill and the pulp and paper division of the Laboratories. We fully appreciate the valuable work that has been done with the equipment and funds at the disposal of the limited staff of this branch for several years but we are certain that it would mean dollars to the people of Canada and more efficient operation of mills and more complete utilization of pulpwood if a director of exceptional ability could have been afforded by the Laboratories. Opportunities investigations in pulp and paper making and cellulose chemistry, together with the problem of the disposal or utilization of mill wastes, are almost unlimited. Many of these problems are not very urgent but there are many others which are pressing for immediate solution in order to prevent manufacturing losses, to eliminate wastes and to promote more efficient methods of manufacturing which would thus put Canadian industries in a position to compete more effectively with the industries in other countries where more attention has been paid to scientific developments.

Canada has no School of Pulp and Paper Making; Canada has not even a single University course in pulp and paper manufacture. McGill University and the University of Toronto include four lectures on this important industry in a series on Industrial Applications of Chemistry. This is good as far as it goes but it does not meet the situation. It is true that industrial development and the perfection of processes in volving the natural sciences depends more on a thorough knowledge of fundamental scientific principles than on a superficial knowledge of some particular industry but it cannot be denied that a young man entering the pulp and paper industry as a career will give more satisfactory service and will be happier in his environment if he has had an opportunity of carrying out himself on a semi-commercial scale, the various operations of the pulp and paper mill. Such a practical laboratory work should of course, be based on an adequate course of lectures covering the entire industry. His mill work may be circumscribed. The students training should also include study and experience on the properties of cellulose. The class work and the experimental laboratory work would naturally be most efficiently done at the University but the practical operation of mill machinery and the control of manufacturing processes could not be better provided for than at the Forest Products Laboratories. The same man should be in charge of the work at both places. Such an arrangement would provide for the development of the best trained body of operating engineers who would be available anywhere during the near future. There is certainly no place on this continent where such combination of facilities is available and with the continuation of the plan of the Technical Section for placing University students in the mills for vacation work, there attaches a purposeful meaning to a University course which is of the greatest benefit to both the student and the mill.

It will be remarked that the first purpose of the Laboratories is the investigation of the problems associated with the utilization of timber and that the first duty of the University is to train the investigators who will attempt to solve these problems. What could be more logical or advantageous therefore, than to associate these two institutions and conduct the work of training and investigating in conjunction? At present we understand that the investigation of a problem as a basis for the writing of a thesis is not required for graduation in the department of Chemistry although we understand that essays are sometimes written on certain phases of industrial work. We believe that the young graduate will be far more useful to the industry he chooses to connect himself with if he could have some training in the organization and conduct of his attack on some industrial problem under the direction of a trained research man. We hardly see how a young man can otherwise obtain an appreciation of the factors involved in industrial operation nor the means of obtaining adequate, essential data with the least interference with mill operation. The very aquaintance he would get with measuring instruments and a bit of practice in cutting and fitting pipe would put the University man on an altogether different and better status with the mill man than he enjoys at present and his services will be worth far more to his employer.

It seems a shame that for so many years this opportunity of giving students some practical mill work and in the development of a course dealing particularly with Canada's most important manufacturing industry has been neglected. Under the direction of a qualified research man the work of investigation on many important problems could be organized in such a way as to collect the necessary data and at the same time give the students experience in the organization and interpretation of research work and the operation of pulp and paper mill equipment. Such an opportunity as the present close association between the University and the Laboratories offers would be entirely lost and without any compensating gain if the Laboratories were moved elsewhere. The idea of divided services is probably a bugaboo that has tended to scare the Forestry Branch from co-ordinating the work in both institutions under one man but there was a very successful precedent for such divided services in the experience of the first Superintendent of the Laboratories who at the same time was also editor of the Pulp and Paper Magazine and secretary of the Canadian Pulp and Paper Association. The work of the Laboratories is now too big for the superintendent to hold another position at the same time but the work in the Pulp and Paper division could not only be carried on simultaneously with teaching at the University, but such a combination would be a distinct advantage to both institutions and an unqualified advantage to the student and the industry with which he would later be connected.

No, Mr. Stewart, please don't move the Forest Products Laboratories of Canada to Ottawa or anywhere else until you have an institution as good as McGill to connect it with, but rather get together with the University faculty and work out some means for closer cooperation.

To try to make others comfortable is the only way to get comfortable ourselves, and that comes partly of not being able to think so much about ourselves when we are helping other people.

The world does not owe any man a living but every man owes the world a life.

#### The Possibilities of Co-operation between

the Forest Products Laboratories of Canada and McGill University.

- 1. The Importance of the F.P.L. as a technological institution.
  - (a) Forest products, as a national resource, are second in importance to agriculture only.
  - (b) Some of the largest Canadian industries (e.g., lumber, pulp, paper, building, wood-products etc.) are dependent upon forest products for their chief raw materials.
  - (c) Canada is the largest timber and pulp producing country within the British Empire.
  - (d) The world is using wood faster than ever before and much faster than it can be grown. The proper utilization of wood is one means of counteracting the inevitable shortage.
  - (e) Very little scientific study has been devoted to wood as compared with other materials.
  - (f) The F.P.L. have valuable equipment for scientific and technical research into wood and wood-products. They have instruments for investigating the chemical and physical nature of woods, machines for testing the strength of timbers, plant for methods of preserving timber, plant and apparatus for making pulp and a fine paper machine specially arranged for experimental work. A library of books and periodicals relating to the utilization of forest products is kept abreast of the world's knowledge of such subjects.

The staff is familiar with the problems offered by the work and have now some experience in dealing with them. 2. The possibilities of co-operation.

- (a) Already the F.P.L. receive valuable assistance from the University sity - first, by the provision of premises at 700 University Street; second, by the use of the testing laboratory in the Engineering Building. In the latter instance the staff of the F.P.L. have the occasional use of the college machines for special work.
- (b) In the past the staff of the F.P.L. has provided lecturers for special courses at the University. The special knowledge possessed by members of the staff should make this feature a valuable one to the University. The following scientific and technological courses might be given by the aid of the staff of the F.P.L.
  - 1. To botanists, architects and engineers: lectures on the structure of wood, on the physical characters of wood, on the mechanical properties of wood, on the causes and prevention of decay of wood, on the methods of preserving timbers.
  - 2. To chemists and chemical engineers: lectures on the manufacture of pulp and paper, lectures on the chemistry of wood and other sources of cellulose, methyl alcohol, acetic acid etc.

More than lectures might be provided and the excellent equipment available for the use of a Pulp and Paper School would perhaps be a considerable factor in deciding upon the foundation of such a department. By coming to an arrangement by

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which the chief of the Division of Pulp and Paper in the F.P.L. should also direct the instruction in the Pulp and Paper School it should be possible to secure the best man available without either the Government or the University paying a large amount. Separately, neither is likely to offer an amount which would compare favourably with the salary which such a man could obtain in the industry. Some of the students attending such a course in pulp and paper could be absorbed by the laboratories.

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### Memorandum: - Cooperation with McGill University

Subjects in which the Forest Products Laboratories might assist.

#### Applied Science

#### Engineering:

Strength of materials Strugtures Testing methods peculiar to timber Wood Preservation Selection of materials

Chemical Engineering:

Pulp and Paper Chemistry of wood Wood distillation

#### Architecture

Selection of materials Special constructions Prevention of decay by suitable design Preservative treatments Wood finish

#### Physics:

Hygroscopicity of wood and relation to atmosphere Kiln-drying

#### Botany:

Wood structure Physics and chemistry of wood Wood-destroying fungi (Pathology of wood)

#### CANADIAN PACIFIC RAILWAY COMPANY OFFICE OF THE PRESIDENT

#### MONTREAL November 1st, 1921.

General Sir Arthur Currie, G.C.M.G.,K.C.B., LL.D., Principal, McGill University, Montreal.

My dear Sir Arthur:

I have carefully read the memoranda and correspondence contained in your file relative to the threatened transference of the Forest Products Laboratories from Montreal to Ottawa. It would be a great pity if these laboratories were transferred as it is apparent that the same work cannot be done at Ottawa or such work as is done cannot be as well done as would be the case in conjunction with the University and with the utilization of the University's other facilities and staff. I doubt very much whether any immediate move will be made but I would suggest that you drop a note to Sir James Lougheed stating that before anything definite is decided upon you desire that yourself and myself should have the opportunity of disclosing all the facts to him. It is more than probable that you will receive an immediate answer to the effect that nothing will be done until after the elections. This, in the circumstances, will, I think, be satisfactory.

Your very kruly.

October Wineteenth. 1922.

Herbert Marler, Esq., 701 Transportation Building, Montreal.

Dear Mr. Marler:-

I thank you for your letter of the 17th of October re the Forest Products Laboratories.

For your information I may say that a committee of the Pulp and Paper industries is meeting a committee of McGill University, with a view to ascertain how this University can best serve that industry. The fate of the Forest Products Laboratories is associated with that meeting.

I may say that all the Pulp and Paper people are firmly of the opinion that these Laboratories should be left where they are and also that Ottawa is the last place on earth where they should be placed. You probably know Mr. Chahoon of the Laurentide Company. He frankly and positively states that if the Laboratories are moved to Ottawa they will be no use whatever to the Pulp and Paper industry.

I thank you for the assurance (really not necessary) that we can always look to you for assistance in any representations we may make to the Government.

Yours faithfully,

Principal.

701 Transportation Building, Montreal, 17th October 1922.

HERBERT MARLER

Sir Arthur W. Currie, G.C.M.G.,K.C.B.L.L.D., Principal of McGill University, Sherbrooke Street West, Montreal, P.Q.

Dear Sir Arthur, RE FOREST PRODUCTS LABORATORIES:

In this matter the Honourable Charles Stewart now advises me under date the 21st of September last that the question of Forest Products Laboratories in Montreal is receiving further consideration seeing that Mr.Beatty has advised the Government that the Governors of McGill University are prepared to provide accomodation and facilities. I wrote you in this matter on the 6th of September last.

Mr. Stewart's letter above referred to of the 21st of September last was received at my office during my absence, hence my reason for not having attended to it earlier.

If I can be of further help or service to you in this matter do not hesitate to command such help.

Yours sincerely, M/mmh

APSG:MC.

September Fifth 1922.

Honourable Charles Stewart, Minister of The Interior, Ottawa.

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Dear Sir:-

I acknowledge receipt of your letter of August 29th addressed to the Principal. Sir Arthur has left for the West and will not be back before the lst of October.

Since the matter you speak of. however, appears to be urgent I have sent a copy of your letter to Mr. E.W.Beatty, the Chancellor of the University, and you may expect to hear from him within the next few days.

Yours faithfully,

Secretary.

HERBERT MARLER

701 Transportation Building, Montreal. 6th September 1922

Sir Arthur W. Currie, G.C.M.G., K.C.B., LL.D., Principal of McGill University, Sherbrooke Street West, Montreal.

Dear Sir Arthur, RE FOREST PRODUCTS LABORATORIES:

On the 9th of August last I wrote you in connection with this matter. I also wrote to the Honourable Charles Stewart, Minister of the Interior. He at that time was out of town on a visit to the West.

He has now written me under date the 29th of August last giving various reasons as to why he thinks it would be better to move the laboratories to Ottawa. He did say however in his letter that after considering the whole matter he came to the conclusion that if McGill was prepared to assure him that a suitable building would be provided, rent free, he was willing to submit for consideration that action towards removal be deferred for the time being. Apparently McGill cannot furnish the building required.

I have written again to Mr. Stewart saying that while I am not convinced that his reasons are conclusive to the extent that the laboratories would be better in Ottawa than Mc-Gill, because in my opinion they would be better at McGill, nevertheless I presume that great weight requires to be given to his various reasons. Sir Arthur W. Currie, G.C.M.G., K.C.B., LL.D., 6th September 1922

Needless to say if I can be of further service in this matter to you please do not hesitate to command such service.

Yours sincerely,

APSG:MC.

September Fifth 1922.

E. W. Beatty, Esq., President, Canadian Pacific Railway, Montreal.

Dear Mr. Beatty: -

#### FOREST PRODUCTS LABORATORIES.

I enclose copy of a letter addressed to the Principal by the Hon. Charles Stewart, which I think probably needs immediate attention.

In view of the attitude taken by the Board of Governors at its last meeting in regard to this matter, being such as to indicate that they would like to see these Laboratories remain connected with McGill, I thought that possibly you might be willing to say at this time that the University was prepared to furnish proper accommodation for them.

I have written to Mr. Stewart today acknowledging receipt of his letter and stating that he might expect to hear from you in the course of a few days.

Mr. Lawrence's estimate for the cost of furnishing the accommodation in question has been held up pending the return of the Government Superintendent here.

E. W. Beatty, Esq. - 2 -

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I believe he is expected this week. I can, however, give you an approximate figure within a few days.

Yours faithfully,

Secretary.



Ottawa, Ontario, August 29th. 1922.

Dear Sir Arthur Currie,-

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Upon my return to the City, I have had placed before me your correspondence relative to the removal of the Forest Products Laboratories from Montreal to Ottawa, and I note that the McGill University is unable to provide, rent free, suitable accommodation for these Laboratories.

It is regrettable that you appear to be unable to secure proper accommodation. I have been holding space here for some considerable time awaiting your decision, and I fear I shall have to give the Public Works Department an answer in the very near future. Owing to the inadequacy of the building on your premises and the serious conditions it is in at the present time, I fear that it will be necessary for my Department to take action as indicated.

> Believe me, Yours faithfully, Chad Stewart

Sir Arthur Currie, G.C.M.G., K.C.B., Principal, McGill University, Montreal.

701 Transportation Building, Montreal. 9th August 1922.

HERBERT MARLER

Sir Arthur W. Currie, G.C.M.G.,K.C.B.L.L.D, Principal of McGill University, Sherbrooke Street West, Montreal, P.Q.

Dear Sir Arthur,

In reference to my letter to you of the 1st of August instant as I indicated therein I wrote to the Honourable Charles Stewart respecting the matters referred to in such letter. I now have a reply from the Minister's Secretary acknowledging my letter and stating that my representations will be brought before him on his return from the West. The Secretary encloses a copy of Mr. Stewart's letter to you of the 29th of June last the contents of which you had already placed before me.

I will follow this matter up and will be very glad if you will keep in touch with me so that I can render you all possible service.

Yours sincerely, Manh

701 Transportation Building, Montreal, 1st August 1922.

HERBERT MARLER

Sir Arthur Currie, K.C.B., Principal of McGill University. Sherbrooke Street West. Montreal. P.Q.

Dear Sir Arthur, RE FOREST PRODUCTS LABORATORIES:

In this matter I acknowledge the receipt of your letter of the 14th of July last, which reached me only this morning, enclosing copy of letter written under like date to the Minister of the Interior.

I remember the conversation between the Minister of the Interior, Dr. Ruttan and yourself at Ottawa last May.

Although I fear I cannot persuade the Minister otherwise I am writing to him in an attempt to consider the position of the McGill University in this matter and asking his assistance.

Yours sincerely.



Ottawa, Ontario,

July 20th. 1922.

Sir -

In the absence of the Honourable Mr. Stewart, I beg to acknowledge the receipt of your letter of the 14th instant with regard to the Forests Products Laboratories.

In order that your representations may be given attention, I am referring your letter to the Deputy Minister of the Interior, Mr. W. W. Cory.

Yours faithfully,

K. Hacherseon

J.E.FEatherston, Private Secretary.

Sir Arthur Currie, G.C.M.G., K.C.B., LL.D., Principal, McGill University, Montreal.



# OTTAWA, Ontario, 20th May, 1922.

My dear Sir Arthur .-

With further reference to my letter of the 16th instant, if you will let me know your decision in regard to the provision of a suitable building, rent free, for the Forest Products Laboratories in Montreal, I will send Mr. Finlayson at once to inspect the building.

Yours faithfully, Chas Stewark

Sir Arthur Currie, G.C.M.G., K.C.B., LL.D., Principal, McGill University, Montreal.



OTTAWA, 16th May, 1922.

My dear Sir Arthur,-

Adverting to our recent interview respecting the proposal to remove the Forest Products Laboratories from Montreal to Ottawa, I would point out that while there are strong administrative reasons why the laboratories should be located at Ottawa, nevertheless in view of the representations which you have made I would be prepared to submit for the consideration of my colleagues a suggestion that action be deferred for the time being if I had some definite assurance that we would be provided immediately with a suitable building in Montreal. As matters stand now the building in which the Laboratories are housed is in such a poor state of repair that the lives of the employees are endangered and we cannot assume responsibility for what might The building cannot be put in a safe condition transpire. and some other building will have to be provided. There is a suitable building available in Ottawa.

In order that you may know just what is needed I am sending down one of our young men Mr. E. H. Finlayson, who is aware of all the negotiations that have taken place respecting this subject, and he will tell you just what kind of a building is needed to properly house the Laboratories. We will expect to get this building free of charge.

Sir Arthur Currie, G.C.M.G., K.C.B., LL.D., Principal, McGill University,

Montreal.

Chas Stewark



Ottawa, February 27, 1922.

Sir Arthur Currie, G.C.M.G.,K.C.B.,LL.D. Principal, McGill University, Montreal, P.Q.

My dear Sir Arthur :-

Re Forest Products Laboratories

Upon receipt of your letter of the 14th instant, I immediately communicated with Mr. Stewart, the Minister of the Interior, respecting its representations concerning the removal of the forest products laboratories from Montreal to Ottawa. I enclose for your perusal the communication I received from him in reply. As mentioned in the concluding paragraph of this letter, before taking final action in this matter, Mr. Stewart will be pleased to carefully consider any representations which you may wish to make or have made on behalf of McGill University.

I might say that I would have forwarded the enclosed letter to you before this, had it not been that I had all along been hoping that I might have an early chance of seeing and conversing with you in Montreal. There are other letters which I have received from you of which I have sent no acknowledgement but for which I wish to thank you. This I had hoped to be able to do while in Montreal today. Unfortunately, the nature of my engagements proved to be such that I failed altogether to find the free moment in which to call upon you. As a consequence, I am sending this letter by way of explanation, dictating it-by the way-on my way back to Ottawa from Montreal, whence I took Mr. Stewart's letter to show to you.

You will, I am sure, be the first to appreciate the great pressure of work I have been under since the change of Administration. This alone accounts for the deplorable state of much of my correspondence. Particuarly do I wish to thank you for the more than kind letter which I received from you within a day or two after the general elections. It was one of a few letters to which I hoped to be able to reply by hand, but the moment of leisure essential to even so slight a recognition of a great kindness has thus far failed to present itself. Under the circumstances, I can only hope that you will pardon this long delay in an expression of thanks which I can assure you is very sincerely and deeply felt.

I was pleased to see that you have recently been spending a day or two with Mr. Rockefeller, Jr., New York. I wish I might have shared some portion of that

2

visit with you. You would, I am sure, greatly enjoy Mr. Rockefeller's company. He is one of the best men I know, and I have yet to find any one who knows him at all who does not entertain the greatest admiration for him.

This is a rambling sort of letter and anything but official in its character. I trust, however, the enclosure may serve to bring the assurance you desired with respect to the removal of the forest products laboratories, and the letter itself some appreciation of, and what I feel I owe to, many thoughtful courtesies on your part.

With kindest regards,

Yours very sincerely.

Managie King

P.J. hu Slemast informer un he has arrouged to have the Lotra lover remain in hearthead

land larger harfits min provide better conodation Mull.

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OTTAWA, 16th February, 1922.

#### My dear Prime Minister,-

I herewith return the letter of Sir Arthur Currie, respecting the removal of the Forest Products Laboratories from Montreal to Ottawa, and in this connection would say that these laboratories, which are entirely under the direction of the Forestry Branch of this Department were started in a building at 700 University Place, loaned to us by the McGill authorities. The building was not an ideal one for our purpose but we were allowed to utilize certain equipment in other buildings belonging to the University and had the benefit of the University Library and the advice of the McGill University staff.

I am enclosing you, herewith, a memorandum showing the changes which have taken place in the staff of the Laboratories since they were started. It has been extremely difficult for us to hold good men on account of the prosperity of the pulp and paper industry which enabled commerical concerns to pay much higher salaries than we could hope to offer. Similar laboratories organizing in other countries also paid higher salaries. As fast as a man proved his worth he was snapped up by some other organization and so the Laboratories became more or less disorganized although marked improvement has been effected since Mr. Kynoch, the present Superintendent, took charge, as the general business depression makes the Government service more attractive than formerly.

There were several reasons why the Department decided to move the Laboratories to Ottawa.

Hon. W. L. Mackenzie King, C.M.G., M.A., LL.B., - In the -Prime Minister, Ottawa. In the first place the advantage of having the research laboratories in close touch with the administrative offices is apparent. The live ideas upon which research is based as a rule emanate from the administrative officers who are handling the current business. It is difficult to maintain a personal touch when the organizations are separated and it is hard to keep an organization intact when it is separated from the administrative control.

\_?\_

In the second place the building in which the Laboratories are housed has gotten into such a poor state of repair that it is positively unsafe to continue there any longer. The development of the laboratories is hampered through lack of proper quarters. There is a suitable building available in Ottawa.

Thirdly, the work of the Laboratories has now reached a point where the benefits to be derived from consultation with the staff of McGill University and the University Library are outweighed by the advantages that would accrue from more ready contact with the administrative officers in Ottawa.

Fourthly, we are not aware to any great degree by the fact that the Laboratories are located adjacent to the University.

Fifthly, The Cabinet Ministers, Senators, Members of Parliament and the officials of Government Departments are vitally interested in Research and will welcome an opportunity of personal contact with those engaged in this very important work.

This matter was carefully con-However, I am quite prepared to hear any representations that Sir Arthur Currie or anyone representing the University may care to advance.

Yours faithfully, Chas Stewark

EDITORIAL :-:

#### PULP AND PAPER AT McGILL.

It is hardly more than once in a lifetime that an opportunity like the present comes to a University for establishing a work that will have such a wide influence as would the establishment of a course in pulp and paper making at McGill University. There is no educational institution on the continent better provided with equipment for all the work properly incident to such a course, as the well-known university so ably presided over by the world renowned Gen. Sir. Arthur Currie. It would be but another instance of Sir Arthur's foresight and initiative to recommend and assist in the establishment of Canada's first school of pulp and paper manufacture. There is no industry in Canada which would profit more from a specialized course of this character and there is none better able or more inclined to give willing and helpful co-operation.

The present is the most opportune time that could possibly be conceived. The announcement has just been made of the munificient bequest of Mrs. E. B. Eddy in the establishment of a chair of Industrial Chemistry, with particular reference to the working out of problems in the pulp and paper industry. There is no name in Canadian Industry more highly respected than that of the man who established and built up the great manufacturing enterprise at Hull, a name that is known the world over as a manufacturer of pulp and paper, matches, lumber and numerous other articles produced from wood. It is natural and fitting then, that the Mrs. E. B. Eddy chair should carry with the obligation that the endowment should be devoted particularly to the study of problems and giving instruction in subjects connected with wood and its utilization. There are few chemical industries in Canada that do not in some way touch upon the chemistry of wood so that this subject becomes very near being the keynote of industrial chemistry in Canada. Certainly the pulp and paper industry, apart from the source of this bequest, has a proper claim to the major activities of such a professorship. There are few lines of industrial activity which hold greater promise of development or which have greater need for high class research work than is to be found in the many problems confronting those interested in the products of the forest. These problems range all the way from many puzzling points in the fundamental chemistry of the wood itself, even going back to the soil and the atmosphere where the tree grows, and on down through the many processes of conversion to the properties of pulp and paper and the

elusive molecules of the mysterious substances in the waste liquors. Pages can be written simply in the tabulation of the problems that are even now pressing for solution. It is a curious fact, furthermore, that the attack on one problem is almost sure to open up three or four more that depend on it and that in some cases must be solved before the original line of research can be followed to completion.

Instruction in pulp and paper subjects and research in fundamental problems to be most effective, requires familiarity with, or expression in terms of mill equipment. The proximity of the well equipped paper mill of semi-commercial size at the Forest Products Laboratories of Canada which are housed in McGill property, furnish unsurpassed opportunities. Besides the paper making equipment already installed and only occasionally used, there was recently built an additional building designed to accomodate two digesters, one for pulp making by acid processes, and another for alkaline processes. Specifications were worked out for this equipment through the cooperation of the advisory committee to the laboratories appointed to the Technical Section of the Pulp and Paper Association so that the apparatus could be ordered and installed without delay. In fact, it is understood that there has been an appropriation of the Dominion Trusty Branch for this purpose.

Mention was made in these columns last week of the desirability of a closer cooperation between the University and the Laboratories and now that the announcement has been made of the endowement of the Mrs. E. B. Eddy Chair, it seems that nothing should stand in the way of working out an arrangement that would be most beneficial to all parties.



# McGILL UNIVERSITY DEPARTMENT OF CHEMISTRY

R. F. RUTTAN, DIRECTOR

MONTREAL. 4th March, 1922.

Sir Arthur Currie, Principal, McGill University.

Dear Sir Arthur: -

I read with a great deal of pleasure and satisfaction the Premier's letter to you regarding the Forest Products Laboratory, and particularly his postscript.

The Minister of the Interior has evidently obtained his information from the Deputy, and, in reply to his arguments, I may state briefly, first, that there has never been any obvious disadvantage to the Department by having the Forest Products Laboratory in Montreal. In the past this has been a research organization and has shown a high degree of efficiency, higher than any Department in Ottawa with the exception, perhaps, of the Mines Branch in the Department of the Interior. Secondly, the buildings are unsuitable but could be made thoroughly efficient by the expenditure of less money than would be required

to adapt

#### McGILL UNIVERSITY DEPARTMENT OF CHEMISTRY

R. F. RUTTAN, DIRECTOR

# Sir Arthur Currie, 2. MONTREAL. 4-3-22.

to adapt the huge storage shed proposed for the use of the Laboratory in Ottawa. It is of great advantage to the industry to have the Forest Products Laboratory so intimately associated with the Faculty of Applied Science, as it thus directs of students to this field of industry and ensures a continuous supply of well trained men. Suggestions regarding research and investigations for the Forest Products Laboratory do not come from the officials of the Government, but from the industries and many of them from the members of the University staff.

It would be a great pleasure to me to assist you in any way towards keeping the Forest Products Laboratory in Montreal and bringing it into even closer relation to the University than it is at the present time.

Sincerely yours. And unan

### RFR/JH

P.S.:- I am returning you the Premier's Letter.

February Fourteenth 1922.

Sir Lomer Gouin, Department of Justice, Ottawa.

Dear Sir Lomer: -

I am attaching herewith a copy of a letter which I have today forwarded to the Prime Minister.

It is self-explanatory, but I would like if you would use your influence to see that this Forest Products Laboratory is not moved to Ottawa until Mr. Beatty and I have had an opportunity of placing all the facts in connection therewith before the Government.

I may say that the Board of Governors of McGill University have lately given their approval of the establishment of a Chair of Industrial Chemistry. This new Department will be presided over by a man whose specialty runs to wood chemistry, and it was our hope to work in very close liaison with the Forest Products Laboratory.

Yours faithfully,

# McGILL UNIVERSITY

MONTREAL.

SECRETARY AND BURSAR'S OFFICE. APSG:C

> April First 1922.

Dear Mr. Kynock:

I am enclosing copy of a letter which I have received from our Superintending Engineer, from which it will be seen that it is quite unsafe for anyone to occupy your present premises. Regardless of all legal responsibility, the University cannot afford to have this building occupied in its present structural condition.

I am instructed, therefore, to advise you that these premises must be vacated at the earliest possible date.

The University is extremely anxious that the laboratories should remain on the College grounds and as close to our testing laboratories as possible. The Principal will write to the Department of Interior suggesting that some joint action should be taken by the Government and the University towards providing the necessary accommodation for your laboratories.

Yours sincerely,

Secretary.

W. Kynock Esq., Forest Products Laboratories, 700 University Street, Montreal.

Enc.

# COPY

McGill University

Montreal, March 29th, 1922.

Mr. A. P. S. Glassco, Secretary and Bursar.

Dear Mr. Glassco;

### Re Forest Products Lab'y

I made an inspection of the above building yesterday and find that there has been a very considerable further movement of same during the winter. This movement is very noticeable in the bay window of the north east corner which has moved outward, in a settlement and side movement of the west wall. This settlement has caused a lot of damage to the plaster walls and ceilings and the basement floor has been bulged upward and cracked apparently by the movement of the clay forced out by the settlement of the walls.

The settlement of this building is not confined to any particular section, as one portion will show movement for a period, then stay steady for awhile while a movement develops in another section, and the movement is also very irregular, sometimes a large movement taking place in a short time and in other cases a very gradual settlement taking place over a fairly extended period.

In view of the fact that the building is now damaged very extensively, and that further damage is almost certain to follow, and that the rate of this damage cannot be foreseen there being the possibility of movement occurring quite rapidly under proper conditions, I would advise that the building be vacated and the contents removed at the earliest possible date, as no chances whatever should be taken by the University of having any accident occur.

In the event of a continued settlement of the north east corner where the wall is cut up by the bay window, it will probably be necessary to demolish the building, as this portion of the wall will be in danger of collapsing, and it would not be advisable to go to any expense for repairs which while costly would only be of a temporary nature.

> Yours truly, (signed) WM. D. Lawrence, Supt. Engineer.

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GARDENVALE, Que. March 17th 1922.

Sir Arthur Currie, Principal McGill University, Montreal.

Dear Sir.

From the number of comments we have received on our editorials in the Pulp and Paper Magazine relative to closer cooperation among the various parties interested in the Forest Products Laboratories, we are encouraged to take another step which we hope will lead to the accomplishment of something further along this line. It occurs to us to invite to an informal luncheon or dinner at the University Club, the following persons:

Yourself, Mr. E.W. Beatty and Dr. Ruttan from McGill, Mr. Stewart Minister of the Interior, Mr. Cory, Deputy Minister, Mr. R.H. Campbell, Director of the Forestry Branch, Mr. Kynoch, Superintendent Forest Products Laboratories, Mr. Cameron, in charge of the Pulp and Paper Division. Mr. George McKee, President and Mr. Beck, secretary, Canadian Pulp and Paper Association; Mr. Bryant, Chairman of the Technical Section and former head of the Pulp and Paper Divisionat the F.P.L. together with the acting head of the council for Scientific and Industrial Research, with Un. Harfull + myself.

If there are others whom you think have a very deep interest in the matter, we should appreciate having you suggest their names. In order to have a tentative date in mind we would suggest either dinner or luncheon on the 31st of March. I am sure that Mr. Cameron would be glad to have the paper machine running on that day as an interesting demonstration and a visit to the laboratories might be made either following luncheon or preceeding dinner.

Sincerely Yours. . n. Stiphurson,

Editor Pulp & Paper Magazine.

JNS/BG

March Twenty-first 1922.

J. M. Stephenson, Esq., Gardenvale, Que.

Dear Mr. Stephenson: -

I have your letter of March 17th in which you suggest that at an informal luncheon or dinner at the University Club the matter of the closer co-operation between the Forest Products Laboratories and McGill might be discussed.

It certainly would be interesting to meet for such a purpose those whose names you have mentioned in your letter. In addition I might suggest Dr. Adams, the Dean of the Faculty of Applied Science, who, I believe, may take the Chairmanship of the Research Council at Ottawa, and Professor P.E. Lloyd, Professor of Botany here. Professor Lloyd is keenly interested in wood products. Regarding the date suggested, that would be convenient for me, but I find that Mr. Beatty, whom I would like very much to be present, is away in Chicago and may not return for another ten days.

Let me conclude by thanking you most sincerely for the editorial which you have written and which appeared in the Pulp & Paper Magazine.

Yours faithfully,

Principal.

February Twenty-fifth 1922.

J.N.Stephenson,Esq., Editor, Pulp & Paper Magazine, Gardenvale, Que.

Dear Sir:-

• I beg to acknowledge receipt of your letter of February 16th enclosing a copy of the Pulp and Paper Magazine, which has just arrived.

I have read the article you mention with interest. I have already taken the matter of the Forest Products Laboratories up with the Government and hope to have action deferred until I have an opportunity of presenting the case for the University. I shall be very glad to have your co-operation.

Thanking you for your courtesy in sending me the copy of the Magazine, I am,

Ever yours faithfully,

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VANCOUVER OFFICE: 528 Winch Bldg. F. E. PAYSON in charge.

GARDENVALE, Que. Feb 16th 1922.

Sir Arthur Currie, McGill University, Montreal.

Dear Sir.

In the other part of this envelope, you will find a copy of the Bulp and Paper Magazine and I think you will be interested in the article on page 95.

Sincerely Yours.

Asphuson

JINS/BG

EDITOR PULP & PAPER MAGAZINE.

# MCGILL UNIVERSITY

FACULTY OF APPLIED SCIENCE

Bran's Office; FRANK D. ADAMS., PH.D., D.Sc., F.R.S.-DEAN.

MONTREAL Feby. 24th. 1922.

Sir Arthur Currie, G.C.M.G., K.C.B., LL.D., Principal, McGill University.

Dear Sir Arthur,

E.

Dr. Adams was obliged to leave for Ottawa yesterday afternoon, but before leaving he requested me to send you a copy of an Editorial which appears in the Pulp & Paper Magazine for February 16th. 1922, with reference to the establishment of the Chair in Industrial Chemistry, I, therefore, beg to enclose herewith the copy of the article in guestion.

I remain,

Yours very truly,

7. J. Newton.

#### MCGILL UNIVERSITY FACULTY OF APPLIED SCIENCE

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Bran's Office; FRANK D. ADAMS., PH.D., D.Sc., F.R.S.-DEAN.

MONTREAL Feby. 22nd. 1922.

Sir Arthur Currie, G.C.M.G., K.C.B., LL.D., Principal, McGill University.

Dear Sir Arthur,

I hear that within the last two or three days a representative of the Department of the Interior has been in Montreal asking for tenders for the removal of the machinery, etc., of the Forest Products Laboratory to Ottawa. They are evidently proceeding to move in the matter of the removal of this Laboratory in spite of the assurance which was given to you that nothing would be done until you had an opportunity of discussing the matter fully with the Government authorities.

I understand that the man who is selected to be Minister of the Interior, under whose jurisdiction the Forest Products Laboratories would come, is Mr. Stewart from Alberta. When Mr. Stewart went back for election after his appointment as Minister of the Interior he lost his seat, and the Government are now endeavoring to get another seat for him. In this way the Department is left without a regular Minister and apparently taking advantage of this fact the Deputy Minister (or others) is endeavoring to railroad the matter through and have the Laboratory removed before a permanent Minister is appointed.

I am obliged to leave for Ottawa to-morrow afternoon to attend a meeting of the Research Council which will be held in Ottawa to-morrow evening and Friday, and I am, therefore, writing this to you so that you may have immediate knowledge of what is transpiring and then be in a position to take the necessary steps to prevent the transfer of the Forest Products Laboratory to Ottawa being made at the present time.

It is very important in connection with the new Chair in Industrial Chemistry that we should have this laboratory remain where it is, and I am sure that the pulp and paper interests would back up any action to keep the laboratories in Montreal, seeing that when it once becomes part of the Civil Service they can no longer take an efficient interest in the movement as they otherwise might be able to do if it remained in Montreal.

I remain,

Yours very sincerely,

Frank D. adams

· \* ... +

PERSONAL

Ottawa February 16th. 1922. 191\_

My dear Sir Arthur,

70

I have your letter of the 14th instant, with accompanying copy of one you have addressed to the Prime Minister, on the subject of the Forest Products Laboratory.

I am writing to the Honourable Mr. King today, asking that nothing be done in the matter until you have had an opportunity to see him.

Yours sincerely,

Lona form

General, Sir Arthur Currie, Principal, McGill University, Montreal, Que.

February Sixteenth 1922.

Hon. W.L. Mackenzie King, Prime Minister, Ottawa.

Sir:-

.

As desired by the rincipal, I sm enclosing herewith copies of correspondence with the Rt. Hon. Sir George E. Foster, with reference to the Forest Products Laboratories;: also copy of a memorandum on the "Possibilities of Co-operation between The Forest Products Laboratories and McGill University.

Yours faithfully,

Principal's Secretary.

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GARDENVALE, Que. March 23rd 1922.

Sir Arthur Currie, Principal, MeGill University, Montreal.

Dear Sir Arthur.

With your letter of March 21st in hand, <sup>1</sup> am very pleased indeed at the cordial reception you have given to our suggestion for an informal luncheon.

It would be a pleasure to add the names of Dr. Adams and Prof. Lloyd.

If you will be good enough to arrange with Mr. Beatty a time which would be mutually convenient, I should be glad to proceed with arrangements as soon as I hear from you. I shall be in New York the week of April 10th however, and would appreciate having you keep that in mind.

Sincerely Yours.

J.h. Stephenson

JNS/BG

Editor Fulp & Paper Magazine.

February Fourteenth 1922.

Hon. W.L. Mackenzie King, Prime Ministor, Ottawa.

Dear Mr. Prime Minister:-

It has come to my ears today that the Department of the Interior, or some other Department of the Government, is calling for tenders for the removal of the Forest Products Laboratory from Montreal to Ottawa.

This Laboratory is now housed in a building belonging to McGill and our Scientific Departments and the Forest Products Department are working in close harmony. The idea of moving it to Ottawa came up in the days of the old Government and I had from them an assurance that no action would be taken until the Government had given Mr. Beatty and myself an opportunity of ' discussing the whole matter with them.

I am attaching herewith a copy of a letter I wrote you on December 8th. Later in the week I shall eend you copies of all the correspondence which has been exchanged between the University and the Government regarding this matter.

I should like very much to have from your Government the same assurance as I had from the old Government, namely, that no action would be taken until Mr. Beatty and myself had an opportunity of discussing this matter further with the Government

Yours faithfully.

December Eighth 1921.

Hon. W.L. Mackenzie King, House of Commons, OTTAWA.

Dear Mr. King:-

For the past eight months there have been certain reports of contemplated action on the part of the Government re the Forest Products Laboratories, now located on University Street here.

These Laboratories are situated in a building owned by McGill and we allow them to use certain of our machines and apparatus in the Science Buildings. The reports above referred to indicated that there was a movement on foot in Ottawa to move the Laboratories there, and I had an assurance from Sir James Lougheed that no action would be taken until he had given Mr. Beatty and myself an opportunity to place all the facts before him.

I do not suppose the Government will take any definite action on that matter now, and I hope that nothing will be done until the new Government has time to consider the matter in all its aspects.

Yours faithfully.

Principal.

November Second 1921.

Sir James Lougheed, Minister of Interior, Ottawa.

Dear Sir James:-

From time to time one has heard rumors that the Forest Products Laboratories, now located in a building adjacent to this University, were about to be removed to Ottawa.

I have had certain correspondence with Sir George Foster on this subject and I do not propose to advance for your consideration any arguments why we consider the Laboratories can best serve the purpose for which they were created by remaining where they are now situated. This letter is merely a request to you that before final instructions are issued to transfer the Laboratories you give Mr. E. W. Beatty, the Chancellor of our University, and myself an opportunity of waiting upon you for the purpose of discussing the matter in all its aspects.

Believe me, dear Sir James,

Ever yours faithfully,

Principal.



Ottawa, Ontario, November 9th, 1921.

My dear Sir Arthur -

I have your letter of the 2nd instant regarding the removal of the Forest Products Laboratories.

No definite decision has been given on the subject as yet. The suggestion has been made that, with a view to centralizing Departmental administration, it would be advisable to have the Laboratories in Ottawa. I do not anticipate any immediate attention being given to the subject. I, however, shall be most pleased indeed to discuss the matter with Mr. Beatty and yourself before anything is done.

Believe me. Yours faithfully, Immer a, Longlield

Major General Sir Arthur W. Currie, G.C.M.G., K.C.B., LL.D., Principal, McGill University, Montreal, Quebec.

# McGILL UNIVERSITY

DEPARTMENT OF CHEMISTRY

R. F. RUTTAN, DIRECTOR

MONTREAL, 14th November, 1921.

Sir Arthur Currie. Principal, McGill University.

Dear Sir Arthur :-

For your information I am enclosing you copy of a letter from the new secretary of the Canadian Pulp and Paper Association.

Mr. Dawe resigned before the last meeting of the Executive. He was specially interested in the Forest Products Laboratories. T do not know this Mr. Beck who is now secretary.

Sincerely yours, J. Auleace

Enclo. Letter.

RFR/JH

# CANADIAN PULP AND PAPER ASSOCIATION

Drummond Building, Montreal, November 11th, 1921.

Dr. R. F. Ruttan, Director Dept. of Chemistry, McGill University, Montreal, Quebec.

Dear Dr. Ruttan,

The subject of your letter of November 8th. was brought before our Executive at their meeting on Wednesday and was given due consideration but no action was taken thereon. The concensus of opinion seemed to be that the ultimate fate of the Forest Products Laboratory is bound up with the plan to establish a central Industrial Research Institute and that since our organization has definitely pledged support to the latter pro-posal it might not be advisable for it to take sides on the question of the removal of the laboratory to Ottawa. The members, of course, are en-tirely in sympathy in with your views as to the desirability of making the Laboratory more effective and since you believe that that can only be accomplished by keeping it in Montreal they are, I be-lieve, to that extent in smypathy with you. However, they did not authorize any action, favorable or otherwise.

# Yours very truly,

CANADIAN PULP AND PAPER ASSOCIATION.

(Sgd.) Edward Beck

Secretary.

EB-M

COPY



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MINISTER'S OFFICE

оттаwa June 20th, 1921.

C.

Sir Arthur Currie, President, McGill University, Montreal, Que.

Dear Sir Arthur:-

I have yours of the 18th with reference to co-operation between the Forest Products Laboratories of Canada and McGill University.

I do not think any steps will be taken of an authoritative kind until the autumn and we shall have time to deal with this thereafter.

Yours very truly,

lengr S. Forliv

June Eighteenth 1921.

Rt. Hon. Sir George E. Boster, G.C.M.G., P.C., Minister of Trade & Commerce, OTTAWA.

Dear Sir George Foster: -

I am attaching herewith a memorandum on the possibilities of co-operation between the Forest Products Laboratoryes of Canada and McGill University.

I would like to add that only the other day we arranged for the erection of an addition to our Old Medical Fuilding, which addition shall house the Botanical Department, as well as other departments. We have also let the contract for the building of Greenhouses, and altogether have added very much to the facilities at the disposal of the Department of Botany. I mention this fact to assure you that we shall shortly be in a position to co-operate more effectively with the Norest Products Laboratories in giving special instruction in matters relating to certain economic problems, as for example the problem of paper pulp disease.

I hope that the Government will not give instructions to move the Forest Products Laboratories to Ottawa. I am leaving for England next Tuesday and shall not return until the first week in September. I should like the decision to be postponed until after that date in order that I may have further opportunity of outlining to you the manner in which the University and the Forest Products Laboratories may co-operate in solving some of our economic problems.

Yours faithfully,

June Twentieth 1921.

Rt. Hon. Sir George E. Foster, G.C.M.G., P.C., Department of Trade & Commerce, House of Commons, OTTAWA.

Dear Sir:-

In a letter dated June 18th written by Sir Arthur Currie he mentions that he is attaching a Memorandum on "The Possibilities of Co-operation between The Forest Products Laboratories and McGill University"

This memorandum I omitted to attach and am now enclosing same herewith.

Yours very truly,

Principal's Secretary.



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MINISTER'S OFFICE

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OTTAWA June 2nd, 1921.

C.

Sir Arthur Currie, McGill University, Montreal, Que.

Dear Sir Arthur:-

I have to thank you for your letter of the lst, with respect to the Forests Products Laboratories.

I will give my attention to this matter as soon as we have gotten through with the business of the House.

Yours very truly,

Unger Boshir

June First 1921.

Right Hon. Sir George E. Foster, G.C.M.G., P.C., Minister of Trade and Commerce, OTTAWA.

Dear Sir George Foster:-

Dr. Ruttan has shown me a letter written to him by you with regard to the removal to Ottawa of the Forest Products Laboratories now set up in buildings belonging to this University.

I de not know whether the action of the Senate with reference to the Research Institute will have any bearing on this matter, but I would like to join with Dr. Ruttan regratting the decision to remove the Laboratories to Ottawa. I believe that it is a good thing to have such Laboratories in close proximity to the Laboratories of the University where an atmosphere favoarable to research prevails. I should think it has been found to be a good thing for those in charge of the Forest Products Laboratories to be able to meet frequently the Professors of our Science Departments. On the other hand, we at McGill like to keep in close touch with the research work of the Laboratories and to feel that we are helping in some small degree.

Until the Research Institute is established at Ottawa I believe the Forest Products Laboratories will do better work if left where they are and I believe the Pulp and Paper industry will agree with me in this.

With kindest regards, I am,

Tours faithfully,

R. F. RUTTAN, B.A., M.D., D.Sc. Hon. Administrative Chairman

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DEAN F. D. ADAMS, Sc.D., LL.D., F.R.S. SIR GEORGE GARNEAU, B.APP.Sc., LL.D. DEAN W. L. GOODWIN, D.Sc., F.R.S.C. LLOYD HARRIS, Esg. PROF. A. B. MACALLUM, PH.D., Sc.D., LL.D., F.R.S.



Canada

SECRETARY

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HONORARY ADVISORY COUNCIL

FOR

SCIENTIFIC AND INDUSTRIAL RESEARCH

Ottawa, 28th May, 1921.

Sir Arthur Currie, Principal, McGill University, Montreal, P.Q.

My dear Sir Arthur:-

For your information, I am enclosing a letter which I have just received from Sir George Foster, giving us the unpleasant news that the Department of Forestry purposes transferring the Forest Products Laboratory to Ottawa. This is the first I have heard of this. I am enclosing, also, my reply to Sir George.

I am,

Very sincerely yours,

Mar

Administrative Chairman.

RFR/EMcC

# "C O P Y"

# Dept. of Trade & Commerce.

Minister's Office.

Ottawa.

May 25th, 1921.

Dr. R. F. Ruttan, Research Council, Ottawa, Ont.

Dear Dr. Ruttan, -

I enclose a letter from Mr. J.B.Hunter which will explain itself. I would like to have your views in respect to this matter, particularly as to what co-operation could be had between the laboratories referred to and the Research Institute.

As it seems they are to be removed from the McGill University Building, and established in Ottawa, the question arises on two points, first, as to whether any or all of the work done at present by these laboratories is necessary to the departmental work, and secondly as to whether the whole or main part of the work could be better done in connection with the Research Institute.

> Yours very truly, (Sgd.) Géorge E. Foster.

"COPY"

Office of the Deputy Minister Ottawa.

Department of Public Works.

May 12th, 1921.

Dear Sir George:-

There has been correspondence between the Department of Interior and this Department on the subject of transfer of the Forest Products Laboratories from two of the McGill University Buildings, Montreal to a suitable building in Ottawa. The removal of the special and expensive machinery connected with the Research Branch referred to is a matter of such importance that before taking any definite action in this matter, this Department desires to ascertain whether the Forest Products Research will in any way co-operate or be connected with a Research Branch that it is understood is about to be established under the Department of Trade and Commerce.

Yours very truly.

(Sgd.) J. B. Hunter,

Deputy Minister.

Right Hon. Sir Geo. E. Foster, G.C.M.G., Minister of Trade and Commerce, Ottawa, Ont.