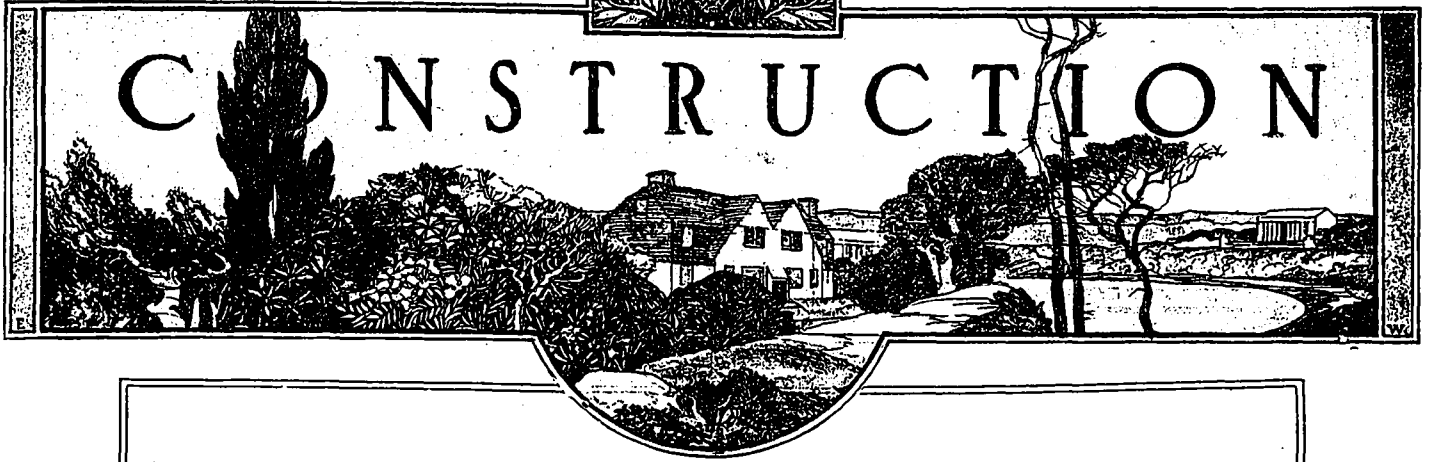


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CONSTRUCTION



February, 1919

Volume XII, No. 2

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H. GAGNIER, Limited, Publishers

GRAPHIC ARTS BLDG., TORONTO, CANADA

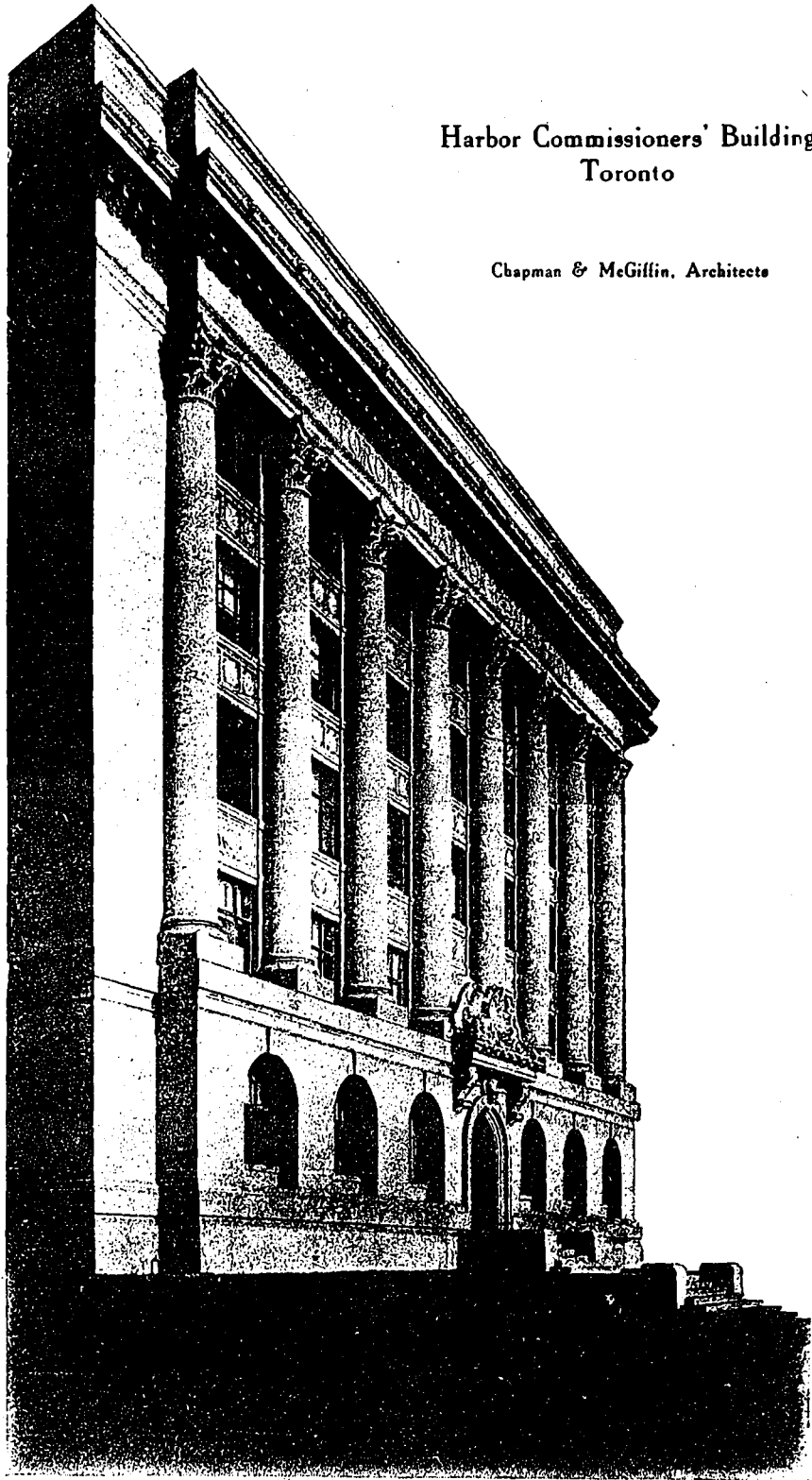
BRANCH OFFICES

MONTREAL

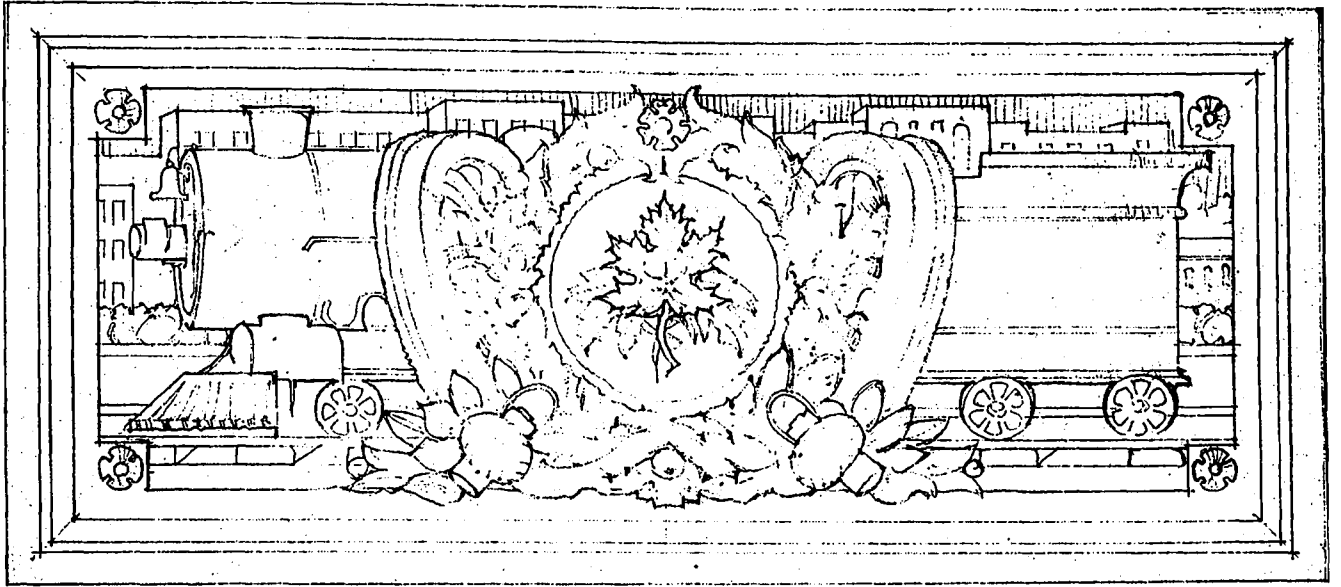
NEW YORK

Harbor Commissioners' Building
Toronto

Chapman & McGiffin, Architects



View Along South Front Overlooking the Bay

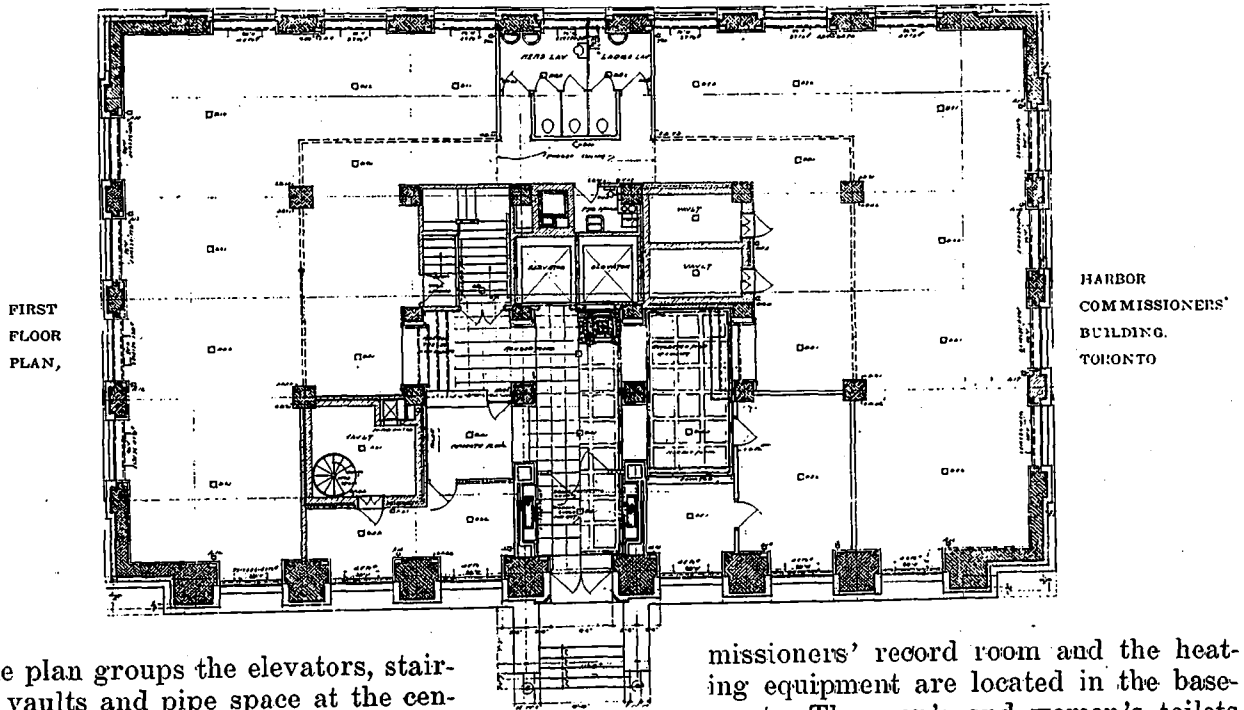


DETAIL OF TYPICAL PANEL BETWEEN 2ND AND 3RD FLOORS.

Harbor Commissioners' Building, Toronto

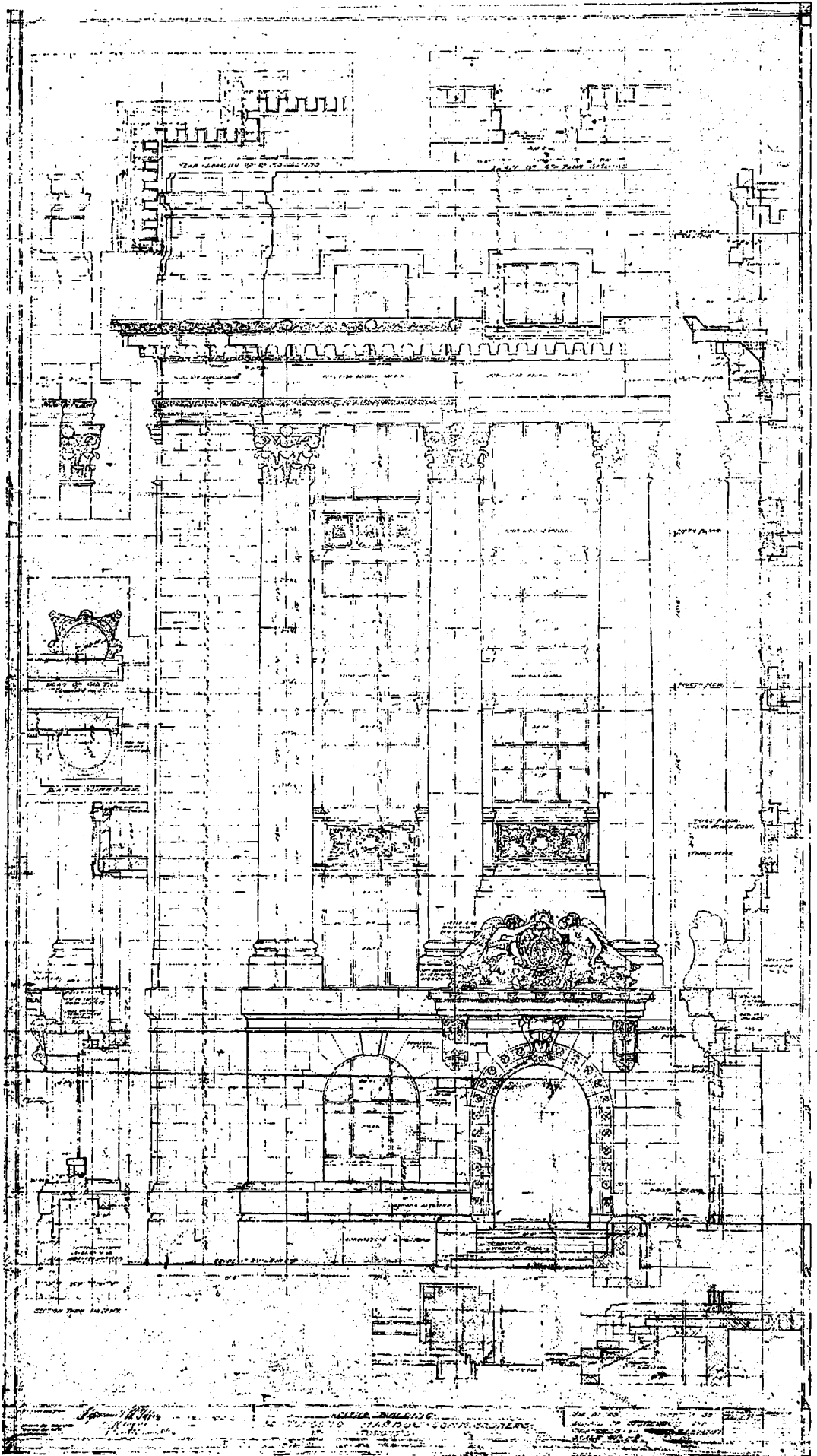
THE object of the new building erected on the waterfront for the Toronto Harbor Commissioners is to house the various departments coming under the Commission's jurisdiction, but further space than is necessary for this purpose has been provided and is rented as offices to private industrial and business concerns. The basement, first, second and part of the sixth floor are occupied as quarters by the Commissioners, and the remaining floors by the firms mentioned.

on the west side, the Harbor Master's offices east of the entrance, while directly opposite the doorway are the elevators. The head executive department is on the second floor on the south side of which at the centre is situated the Commissioners' room, thirty-five feet by seventeen feet by thirteen feet six inches high. On the sixth floor is the Commissioners' drafting department and a lunch room for the use of the tenants. The janitor's quarters together with a blue print and photographic department, Com-



The plan groups the elevators, staircases, vaults and pipe space at the centre with surrounding corridors providing access to offices on four sides. The entrance hall on the first floor is entered from the south front, and has the telephone switchboard

missioners' record room and the heating equipment are located in the basement. The men's and women's toilets are located at the centre of the north front on each floor with the ceiling of the corridor between them and the pipe space lowered to con-



DETAIL OF MAIN FACADE, HARBOR COMMISSIONERS' BUILDING, TORONTO.

ceal the plumbing pipes.

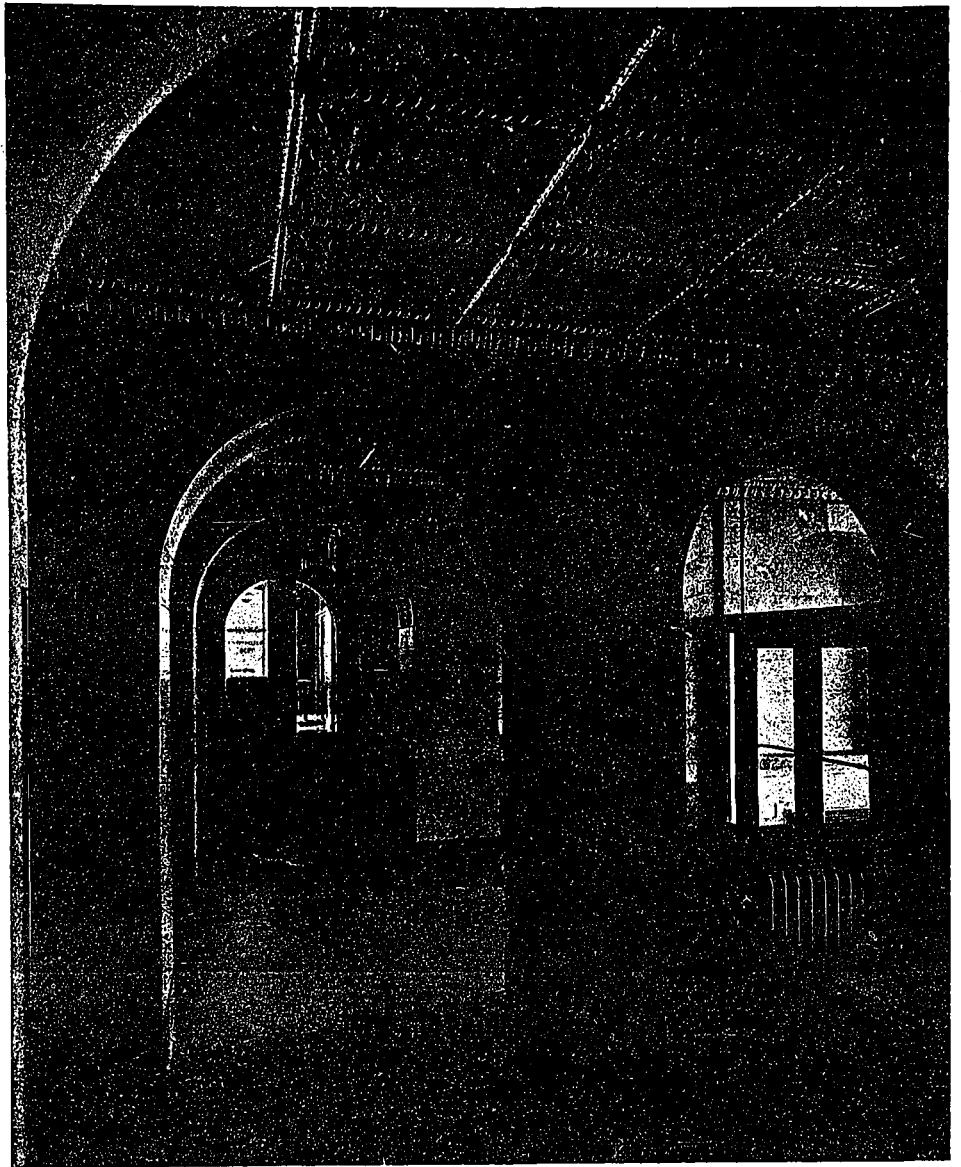
The appropriation and the times did not justify the erection of a monumental civic building, but the important position demanded a robust treatment on a large scale. This has been obtained by solid corners and a bold simple lower story with arched windows. Above this the order extends through four floors, terminating with an attic floor with small windows connected together by a simple moulding. Over the entrance a suitable sculpture group marks the centre of the building in a telling manner, and very happily contrasts with the simple lines of the building. Ornament has been but sparingly used and apart from the entrance consists of simple decorative work on the cornice, the top member of the architrave, and the panels between first floor windows. Depth and shadows are obtained on the south front by the use of three-quarter columns, while a pilaster treatment is used on the north, east and west sides.

The entrance hall has marble walls and floor with a decorative plaster ceiling. The Commissioners' room is finished in walnut with large matched panels and is Georgian in character. The chimney piece and carved table and chairs are of the same material, the latter having been designed by the architect in the style of the room.

The building is supported on wood piles driven to rock. The floors are of reinforced concrete and the partitions hollow tile. The exterior is in Indiana limestone.

The plans for the building were commenced by the firm of Chapman & McGiffin, and completed after the dissolution of the partnership by Mr. Alfred Chapman.

The harbor and waterfront improvements over which the Toronto Harbor Commissioners have control, as an undertaking of its kind, represents a scheme of surpassing magnitude. Together with certain improvements co-ordinated with the project which are being carried

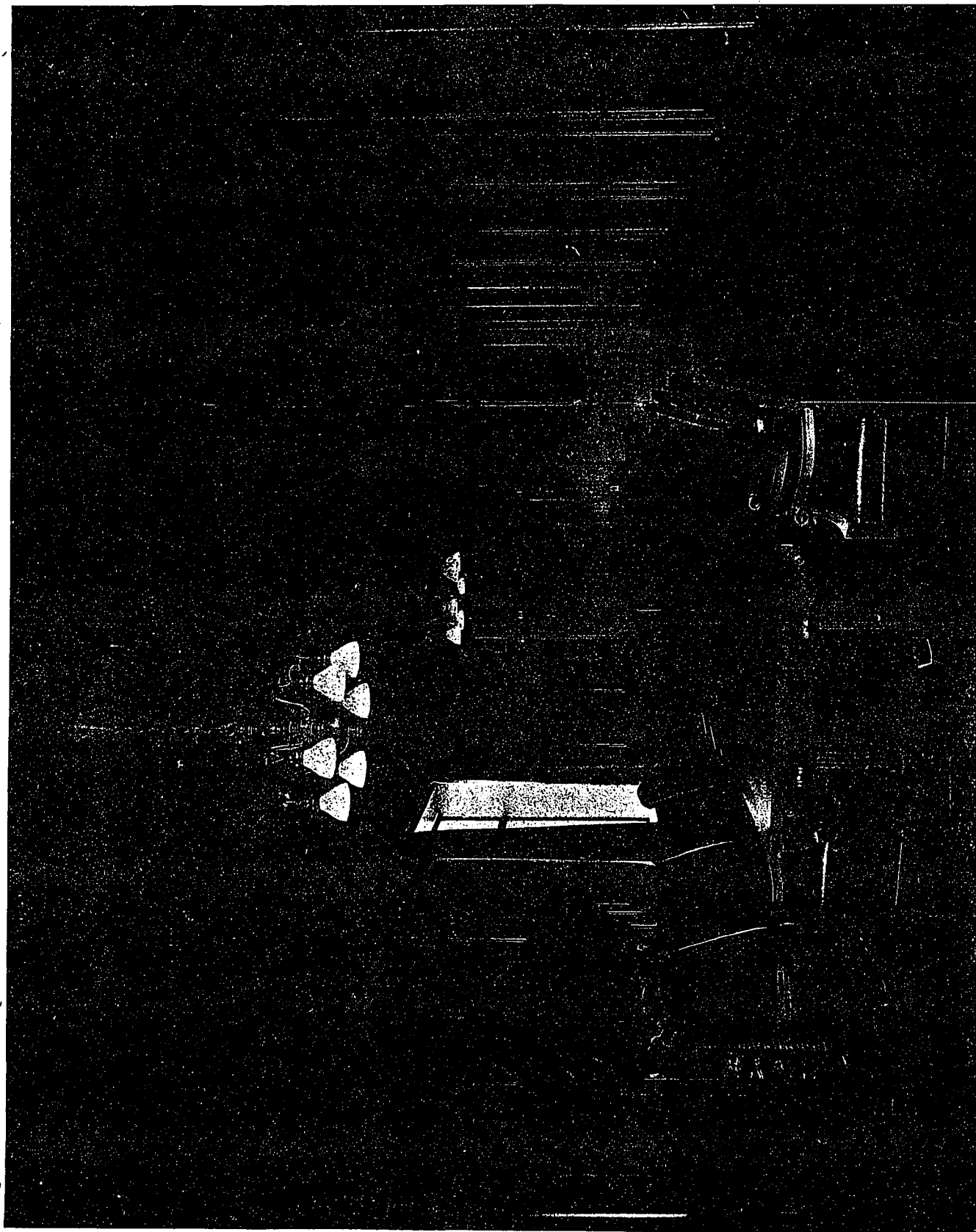


ENTRANCE HALL, HARBOR COMMISSIONERS' BUILDING, TORONTO.

out by the Dominion Government, it involves the development of a waterfront industrial area, deep draft docking facilities, park and recreation reservations and extensive shore and breakwater developments.

Up to the present time 300 hundred acres of property have been reclaimed and made ready for factory and warehouse purposes, of which 160 acres are already under lease. This comprises the Ashbridge's Bay development where the large plant of the British Forgings is located, and the refilled property extending from the foot of Bathurst Street to a point a block east of Spadina Avenue, including the fifteen acre site now occupied by the Dominion Shipbuilding Company.

Approximately nine millions of dollars have been so far been expended by the Commissioners out of what will eventually represent an outlay of twenty-five millions. While the war was instrumental in retarding the harbor development to an extent which practically brought



Chapman and McGiffin, Architects.

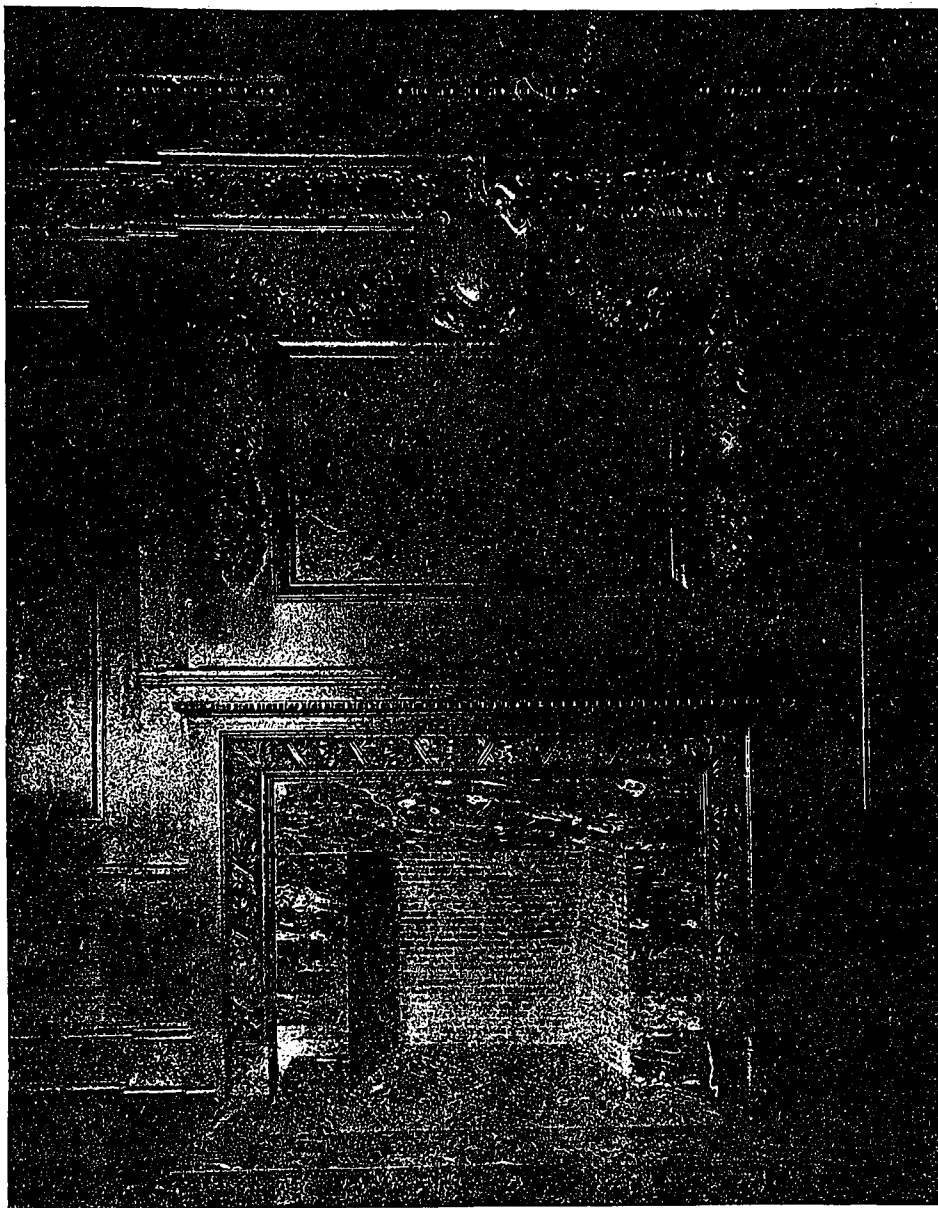
BOARD ROOM.

Harbor Commissioners Building, Toronto.

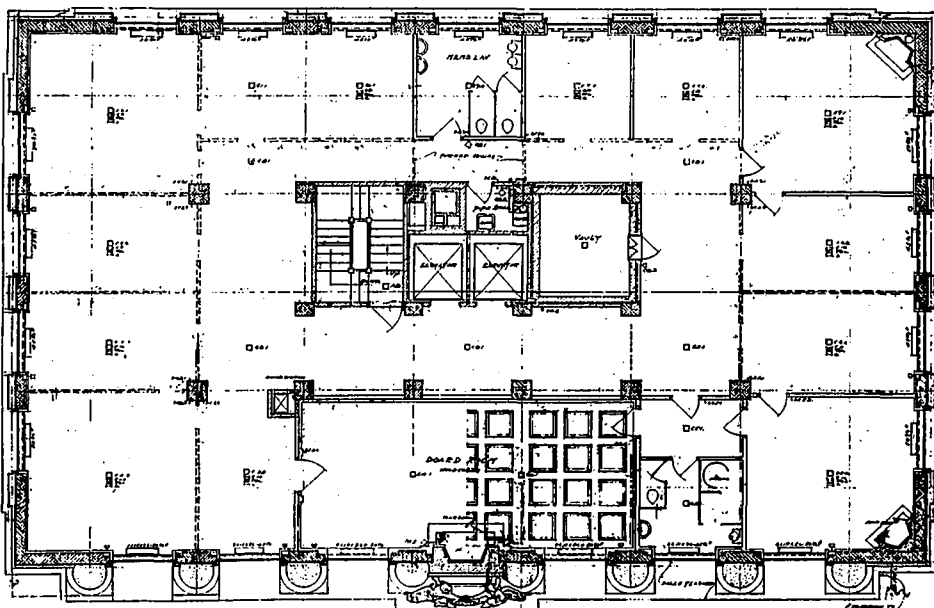
operations to a standstill, the present prospects are that the immediate future will witness an active resumption of work on the project. A huge system of wharves and docks will be built along the main harbor front from Bathurst street to Yonge street, with the ultimate possibility of extending through to Cherry street on the east.

Along this stretch an 86 ft. thoroughfare will be constructed to be known as Fleet Street, with a 140 ft. reservation to the south for light manufacturing and light warehouse developments. Paralleling this again will be another strip, 104 ft. wide, for sidings and railway leads serving the property and also for the proposed radial entrance along the waterfront. All of this will necessitate the reclaiming or refilling of of water property extending out 330 feet from the present shore line, and exclusive of slips which will continue beyond this point. These slips will vary in length from 500 to 700 feet and be about 200 feet wide, having a depth of twenty-five feet, and will be capable of accommodating any boat which can pass through the new Welland Canal. The railway leads and sidings referred to will be on the surface level of the property with the radial coming in on a system of elevated tracks.

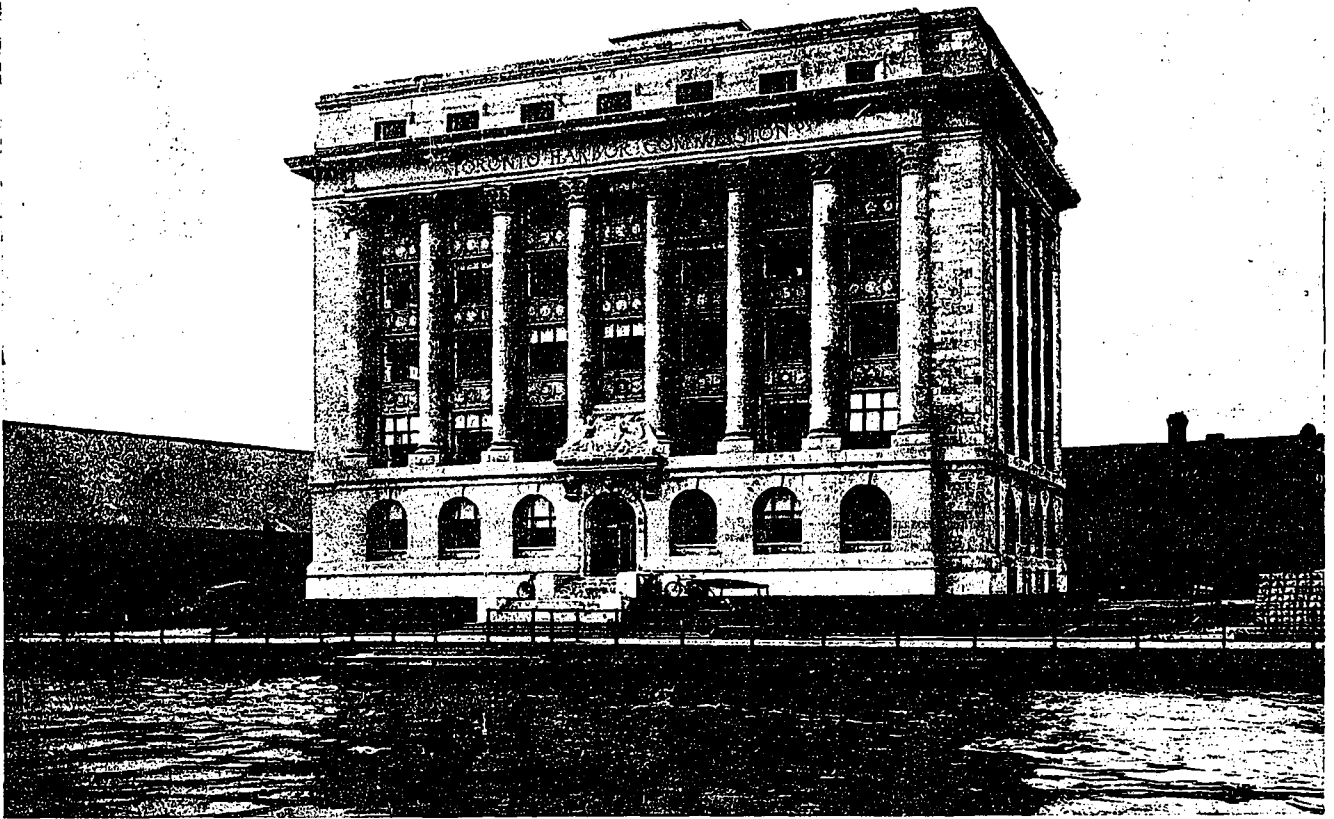
Besides the industrial sites already provided, the Commissioners have so far reclaimed 271 acres of lakefront park property. A very excellent refreshment pavilion has also been erected at Sunnyside where a protected watercourse for



MANTELPICE.



SECOND FLOOR PLAN.



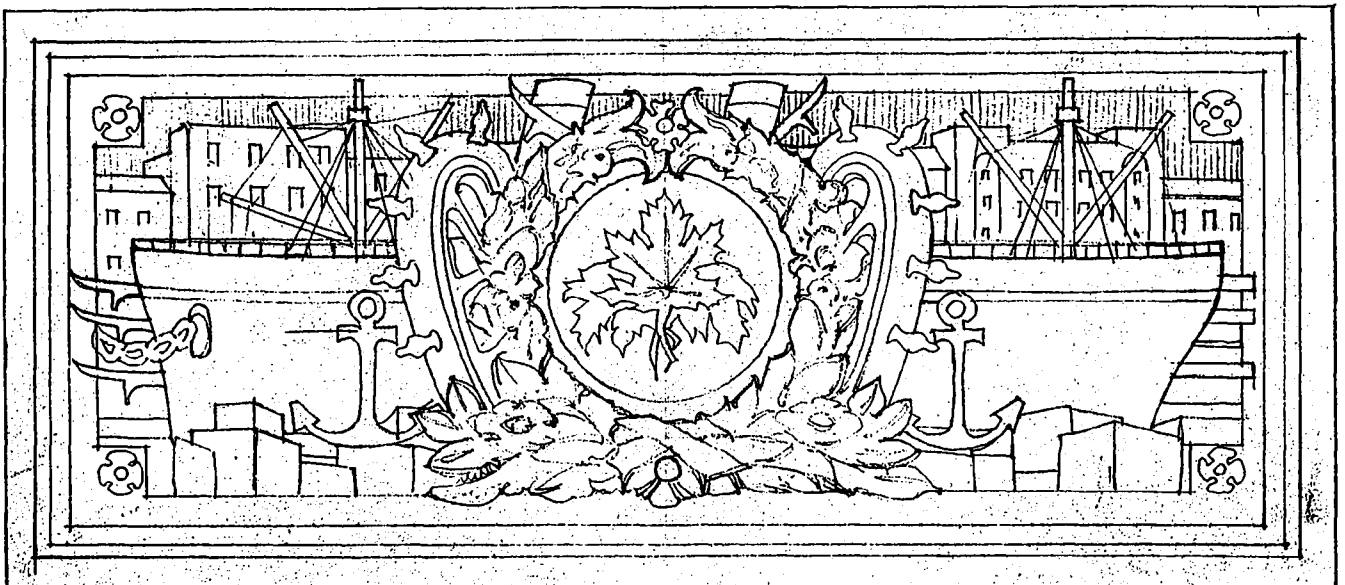
HARBOR COMMISSIONERS' BUILDING, TORONTO.

CHAPMAN & MCGIFFIN, ARCHITECTS.

boating is contemplated in the final scheme, while reservations for bathing places have been made at various points along the harbor front. Eventually bridges of the lift or bascule type will be built across the eastern and western channels. These will join the mainland with Toronto island and form the connecting link of a vast boulevard system which the city has in contemplation; thus making the harbor project

one of the most comprehensive and attractive schemes which has ever been attempted.

Dr. W. A. Riddell, Superintendent of the Trade and Labor Branch of Ontario, representing the Minister of Public Works, recently announced that the Minister of Education had been authorized to build additions to the University of Toronto, and that the work would go ahead without delay.



DETAIL OF TYPICAL PANEL BETWEEN 2ND AND 3RD FLOORS.

R. A. I. C. Meeting, Montreal

THE general annual assembly of the Royal Architectural Institute of Canada in the Arts Club at Montreal on January 17, witnessed to a considerable extent the return of active association work following the disrupting period of the war. Perhaps at no previous time were so many prominent architects present at any one meeting, or more marked enthusiasm shown on any similar occasion. The fact that the gathering was held in conjunction with the annual convention of the Province of Quebec Association of Architects, contributed substantially to increase the attendance, and demonstrates the wisdom of the proposal to hold all future assemblies at a time when one of the provincial bodies is in session.

The meeting was also made the occasion of an interesting architectural exhibit which was held in the Arts Club rooms, consisting of photographs and pen and colored drawings, and including several fine etchings together with a loaned drawing of the Bank of Montreal, by Jules Guerin.

One of the most important issues raised during the assembly was in relation to the practice of discriminating against Canadian architects in reference to Canadian work. This matter was brought before the meeting by Mr. J. P. Hynes of Toronto, and formed the subject of considerable discussion. It was the opinion of the majority of delegates that some action should be taken, and after a general expression on the subject it was decided to leave the matter with the incoming Council to deal. The object will be to seek greater recognition from the Dominion Government, as well as provincial measures to conserve the opportunities for technical practice in Canada for those who are trained under the educational system of the various provinces, and similar to the protection which is given to the legal and medical professions. Mr. Hynes referred to the Illinois Act as a model on which effective legislation in this country could be based, stating that it provided for education and registration along very liberal lines and was of decided economic advantage to the state.

Another matter before the convention was in reference to fees which are charged by certain provincial associations against the individual members of firms who happen to come into their territory from other provinces to do work. There was considerable discussion on this point and it was decided to leave the matter with the Council to try and make some satisfactory inter-provincial arrangement between the different associations. It was suggested that perhaps the more reasonable way would

be not to charge fees against each individual member, but to assess them the regular dues. The present arrangement as regards fees operated to the disadvantage of a partnership as against the individual, while the benefit is the same in both cases.

It was announced that since the last assembly the Architectural Institute of British Columbia had become duly affiliated with the parent body, and that an effort was being made to organize an association in the Maritime provinces with a view to consolidating the profession in Canada from coast to coast.

Very interesting and inspiring addresses and profitable talks and discussions characterized the proceedings throughout. Mr. Claude Bragdon of Rochester, N.Y., spoke at the afternoon session on "Architecture and the Future," while Thomas Adams, Town Planning Adviser to the Commission of Conservation, Ottawa, discussed "Post War Housing" at the evening meeting. Mr. Chas. H. Whittaker, Secretary of the Post War Committee of the American Institute of Architects, was also to have addressed the meeting on the latter subject but was unable to be present owing to illness.

At the conclusion of the morning session the delegates were entertained at luncheon at the St. James Club as guests of the Montreal members, where social discourse and repartee held sway for two delightfully convivial hours.

The list of exhibitors and the full report of the proceedings are as follows:

EXHIBITORS.

Montreal.—Brown & Vallance, 3; Hutchison, Wood & Miller, 2; John S. Archibald, 5; Phillip J. Turner, 1; D. H. MacFarlane, 1; L. A. Amos, 2; Ramsay Traquair, 1; George W. Wood, 1; Hugh G. Jones; Ross & Macdonald and H. G. Jones, 2; E. & W. S. Maxwell, 4; Septimus Warwick, 3; Herbert Raine, 3 etchings; Bank of Montreal, 1 picture by Jules Guerin, value \$1,500, loaned by the bank; anonymous drawings, 4.

Toronto.—Burke, Horwood & White, 2 drawings; Wickson & Gregg, 4; Darling & Pearson, 6; Langley & Howland, 1; C. E. Cleveland, 1; George Guinlock, 1; Chapman & McGiffin, 1; Sharp & Brown, 1; Charles S. Cobb, 2; Shepard & Calvin, 4; Toronto Civic Guild, 2.

PROCEEDINGS

MORNING SESSION.

The meeting was called to order at 10.30 a.m. by President Ouellet, the following members having signed the register as being in attendance:—

Joseph P. Ouellet, Quebec; L. Auger, Quebec; G. H. Macdonald, Edmonton; A. Frank Wickson, Toronto; J. P. Hynes, Toronto; C. H. Acton Bond, Toronto; A. Beaugrand Champagne, Montreal; G. A. Monnette, Montreal; J. Cecil McDougall, Montreal; Septimus Warwick, Montreal; Victor D. Horsburgh, Toronto; J. S. Archibald, Montreal; W. D. Ballairge, Quebec; Edgar Prairie, Montreal; W. P. Riley, Regina; L. L. Aird, Montreal; W. A. Gagnon, Montreal; R. H. McDonald, Montreal; Raoul Gariépy, Montreal; L. A. Content, Montreal; Oscar Beaulé, Quebec; Joseph Venne, Montreal; Emile Venne, Montreal; Claude Bragden, Rochester; Thomas Adams, Ottawa; Emile Payette, Montreal; Francis S. Swales, Montreal; L. A. Amos, Montreal; W. S. Maxwell, Montreal; R. A. Frechet, Moncton, N.B.; C. E. Saxe, Montreal; Alcide Chausse, Montreal; Hugh Vallance, Montreal.

PRESIDENT OF P. Q. A. A. EXTENDS WELCOME.

At the opening of the Session, Mr. Monette, President of the Province of Quebec Association of Architects, addressed the assembly, stating it was both a privilege and a great honor to voice the welcome which the Province of Quebec Association of Architects, and the Arts Club, cordially extended to the members of the Royal Architectural Institute of Canada, on the occasion of the Eleventh General Annual Assembly.

The fact that this Annual Assembly of the Institute was



A. Frank Wickson

*Newly Elected President
of the Royal Architectural
Institute of Canada.*

combined with the Annual Convention of the Province of Quebec Association of Architects gave those in attendance an unusual opportunity of coming into personal contact and relations with their professional brethren, and consequently should widen their views and sympathies. He felt that a high tribute of admiration, gratitude and respect should be paid to the heroes of our profession who have made the supreme sacrifice in the terrible war just closed, which, thank God, has ended in the triumph of right against might. Canada had passed through very many sombre days in the last four years, and the profession was seriously affected. But now the clouds had disappeared, and a new sun was rising on the horizon. The point of view and the perspective were now entirely different, and this result had only very recently obtained through well directed and combined effort.

The war, Mr. Monette said, had proved a great lesson in every way. He urged the members to unite and work hand in hand for the welfare of our profession, and to have more enthusiasm for the Royal Architectural Institute of Canada and their provincial association. If this was done, he felt satisfied that the results would not only be astonishing, but would benefit the public in general.

PRESIDENT OUELLETT'S ADDRESS.

Gentlemen,—I deem it a great honor to preside over this Annual Meeting of the Institute—the Eleventh since its foundation—and which opens under singularly remarkable auspices—the end of the world war—which allows us to breathe in peace under the flag that protects us and which our fellow countrymen have covered with immortal glory during the four long years this bloody conflict lasted.

This meeting is also singularly remarkable by reason of the place in which it is held, the atmosphere of which is saturated with the artistic sense of beauty that speaks so highly of the great number of exhibitors whose work of real merit gives such an unusual flavor of art to our meeting. I offer my hearty thanks to the President of the Province of Quebec Architects Association, and to the Secretary of our Institute, for the success of this exhibition, and I also sincerely thank the Art Club for its hospitality.

During the two years I have had the honor of presiding over the meetings of the Council of the Institute it has been impossible, owing to unfavorable circumstances with which you are all familiar, to realize the progress we had aimed at. We had to grapple with the study rather than with the solution of those questions, and we had to leave to those who would follow us the task and honor of reaching a final settlement of the plan we had drafted and laid out during those years.

Since our last annual meeting, at Ottawa, we have had the advantage of affiliating with us the Institute of Architects of British Columbia, and of forming thereby a compact unity of all the Provincial Associations from the Pacific to the Maritime Provinces. The last mentioned provinces have not, as yet, been annexed to us, but the preliminary steps towards their affiliation with the Institute in the near future have been taken.

The Council has exerted itself during the last couple of years to draw the attention of the Federal Government to the rather awkward position in which Canadian architects are placed by the Federal Statutes with regard to our neighbors on the other side of the boundary line, through the facilities given to foreign architects to practice their profession here to our detriment. We have, jointly with the Civil Engineers, prepared a memorandum to be presented to the Government in order to draw the attention of the Central Authorities to the rather undesirable position in which we are placed, and which we resent all the more, as, owing to the difficult circumstances through which Canada has just passed, it has been proved that Canadians, in whatever sphere of action they may have been called upon to play a part, have proved themselves worthy of the highest praises, and have done great honor to our country.

The work of the Council which I have just mentioned also draws the attention of our Government to the importance of developing the incontestable, and uncontested talents of our fellow-citizens for those arts, industries and resources that have been taken advantage of to their fullest extent in the munitions industry, for instance, as well as in others, where our people have shown themselves equal to and very often superior to strangers, although they had not had any preparatory training in those different branches.

Our universities and scientific schools have, for over a quarter of a century, developed men of great ability in different careers, but, unfortunately, our country has not benefited by the talents of those men as much as it should, owing to the lack of encouragement for our own and the too great enthusiasm of strangers who have known how to draw those young men away from us. Those young men in many instances have gone to our neighbors, and have given them the advantage of their talents, and have thereby allowed those strangers to benefit from services which the young men might have utilized for themselves here had they been sufficiently protected.

The Council has also studied the best means of having the Federal Government adopt the idea of appointing a Commission to establish a Canadian Institute of Arts and Sciences, as well as a national laboratory, to make an official classification of the building and other materials of our country.

The fact cannot be ignored any longer that to-day more than ever Canada needs a bureau of this kind, in this period of world rebuilding in which we have been placed by the war our people have done so much to end after playing such a large and important part of it to the lasting honor and credit of those who have so well understood our responsibilities, and of those who have so generously given their efforts and strength to the cause of justice and liberty.

Our Institute takes a legitimate pride in the fact that almost one-fifth of the total number of its members have served overseas in different capacities, and have given the best of their efforts and intelligence and of their strong arms to the defence of the sacred cause. They, indeed, have deserved more than an honorable mention from their conferees and their fellow-citizens in general. Some of them have laid down their lives as the price of their patriotism, and, before the graves of those heroes allow me to close in a prayer of respect and gratitude.

MINUTES OF PREVIOUS MEETING.

The President: The first order of business before us is the reading of the Minutes of the last General Annual Assembly, held at Ottawa, on October 1st and 2nd, 1917.

Mr. Chausse, Honorary Secretary, explained that the Minutes of the last meeting covered 74 pages of typewritten matter. The

Minutes were published in extenso in "CONSTRUCTION" (Oct. issue, 1917), and it was the custom at the Institute meetings to take them as read, unless there be some special reason for reading them. He therefore moved that the Minutes of the last annual meeting be taken as read, which was duly seconded and the motion unanimously carried.

DELEGATES TO INCOMING COUNCIL.

The Secretary announced that the delegates to the Incoming Council were as follows:

Alberta Association of Architects—G. H. MacDonald, R. P. Blackey and W. D. Cromarty.

Manitoba Association of Architects—J. H. G. Russell, H. E. Matthews, L. H. Jordan.

Ontario Association of Architects—C. H. Acton Bond, J. P. Hynes, C. F. Meredith, A. F. Wickson, and A. E. Nicholson.

Province of Quebec Association of Architects—D. R. Brown, Herbert Raine, Alcide Chausse, J. P. Ouellet, and Joseph Perrault.

Saskatchewan Association of Architects—R. G. Bunyard, A. G. Creighton, H. Cooper, and W. G. Van Egmond.

The Secretary explained that the last mentioned delegates found it impossible to attend, but Mr. W. R. Riley, of Regina, has been elected to represent them, and was present at the meeting.

Architectural Institute of British Columbia—S. M. Eveleigh and Kennerly Bryan.

APPOINTMENT OF AUDITOR.

The President: Our next order of business is the appointment of an auditor.

Mr. Hynes: Inasmuch as the officers will be appointed tomorrow, and the Treasurership may go to some other city than that in which it is at present, I think this matter should be left open, and that the auditor should be in the same city as the treasurer. If in order I would move that the matter of the appointment of an auditor be left in the hands of the incoming Council.

The motion was seconded by Mr. D. R. Brown, and carried unanimously.

SECRETARY'S REPORT.

On the announcement that there were no special communications from the Council, the Secretary's report was presented and read as follows:

Montreal, 15th January, 1919.

To the Council and Members of the Architectural Institute of Canada:

Gentlemen,—

I beg leave to submit my eleventh annual report as Honorary Secretary of the Royal Architectural Institute of Canada.

At the Tenth General Assembly of the Royal Institute, held at Ottawa, on the 1st and 2nd October, 1917, there being no quorum at the two meetings of the Council, the officers and members of the Council of 1916-1917, elected at the Assembly held at Quebec, in September, 1916, have retained their positions up to the time of this assembly in accordance with Section 17 of the By-laws (the members of the Council shall retain their position until their successors have been appointed).

According to Section 27 of the By-laws of the Royal Institute, the following matters were discussed and decided upon by correspondence:

(a) Mr. J. P. Hynes was elected Honorary Treasurer, to fill the position left vacant by the death of Mr. J. W. H. Watts.

(b) Messrs. Edmund Burke, E. L. Horwood and J. P. Hynes were elected as members of the Finance Committee.

(c) The "pro rata" rate was fixed at two dollars per member as the contribution of the Federated Associations.

(d) The Honorary Treasurer was authorized to pay the sum of \$150.00 for the annual rent of the office of the Royal Institute in Montreal.

(e) The Honorary Treasurer was authorized to pay the sum of \$200.00 for the services of an assistant to the Honorary Secretary.

(f) The Honorary Treasurer was authorized to pay the actual travelling expenses of the President, the Honorary Secretary and the Honorary Treasurer attending general meetings or meetings of the Council.

A meeting of the Council was held at Toronto, Ont., on the 5th October, 1918, at which were present Messrs. J. P. Ouellet, A. Frank Wickson, C. H. Acton Bond, A. E. Nicholson, David R. Brown, J. P. Hynes and Alcide Chausse.

Mr. A. E. Nicholson was elected a member of the Council, as a delegate of the Ontario Association of Architects to fill the vacancy left by the death of Mr. J. W. H. Watts.

The Architectural Institute of British Columbia, having conformed to the Charter and By-laws of the Royal Institute, was affiliated, and Messrs. S. N. Eveleigh and Kennerly Bryan were elected as members of the Council to represent the Architectural Institute of British Columbia.

It was decided to communicate with the leading architects in the Maritime Provinces suggesting the formation of an inter-provincial association of architects for the Provinces of Nova Scotia, New Brunswick, and Prince Edward Island, and when such an association is formed, that it be federated with the Royal Institute, so that the membership of the Royal Architectural Institute of Canada will cover the Dominion from the Atlantic to the Pacific Oceans.

The Honorary Treasurer was authorized to make the necessary arrangements to bond the Honorary Treasurer by the Employers' Liability Company, of London, England, for \$2,000, and to pay the required premium.

It was decided that the Honorary Treasurer be authorized to pay the actual travelling expenses of the members of the Council attending Council meetings, up to and not exceeding \$25.

Through the joint efforts of the Architectural Institute of British Columbia, the Engineering Institute of Canada, and of the Royal Architectural Institute of Canada, the proposed bill to incorporate the "Engineering and Technical Institute of British Columbia" by the Legislature of that province, was not adopted.

It was decided to hold the General Annual Assembly of the Royal Institute at the same place and at the same time as the convention of the Province of Quebec Association of Architects, and to hold an Architectural Exhibition at the same time. If this proved successful the coming general assemblies of the Royal Institute would be held annually in conjunction with the annual convention of one of the Federated Provincial Associations. For this year's assembly several eminent American and Canadian architects have been invited to address the members on various subjects.

The Council has decided that in future all meetings of the Council, with the exception of those held at the General Annual Assemblies, will be held in the city of Ottawa, which is according to Clause 2 of the Charter of the Royal Architectural Institute of Canada.

The Council has protested against the Dominion Government's action in having started the erection of a Government office building on O'Connor Street, in the city of Ottawa, in direct opposition to the advice given them by the Federal Plan Commission.

The present General Assembly of the Royal Institute, while being held early in 1919, is the annual meeting which should have been held in the year 1918, and in order to hold our annual assemblies regularly, it is suggested that another general annual assembly be held during this year, preferably at the same time as the annual convention of one of the Provincial Associations of Architects.

Since August 1st, 1918, the Honorary Secretary is constantly in attendance at the office of the Royal Institute, No. 367 Beaver Hall Square, Montreal, where he will welcome the members. His office hours are from 9 o'clock a.m. to 4 o'clock p.m.

Respectfully submitted,

ALCIDE CHAUSSE,
Honorary Secretary.

On motion of Mr. Hynes, seconded by Mr. Monette, the Secretary's report, as above presented, was adopted.

TREASURER'S REPORT.

The President: We shall now have the Treasurer's report.

Mr. Hynes: The document I shall present is not the Treasurer's report, for reasons which will appear from the letter I shall read you from the auditors.

"Toronto, January 16th, 1919.

"Mr. J. P. Hynes, Treasurer Royal Architectural Institute of Canada, Toronto.

"Dear Sir—The information you have furnished me has been put into statement form, and copy is attached hereto.

"I understand you do not wish to have the accounts written up and audited until the recommendation made by myself and previous auditors has been adopted and carried out, namely: that the sources of revenue available to the Institute be determined by the preparation of a list of members past and present, with a statement of any sums due by them to the Institute.

"Yours truly,
"JOHN I. SUTCLIFFE."

The statement to which the Auditor referred was as follows:
Royal Architectural Institute of Canada.

11th January, 1919.

Audited statement of 31st August, 1917, shows balance in bank at that time..... \$ 935.40

After the death of Mr. Watts, Mr. J. P. Hynes was appointed Honorary Treasurer 25th January, 1918, at which time no transactions with the bank appear to have taken place with the exception of the accrual of interest to the amount of..... 19.32

954.72

1918. Receipts.

May 24—Quebec Association of Architects, dues..	\$ 304.00
31—Interest	3.93
June 15—British Col. Association of Architects..	34.00
July 15—Ontario Association of Architects.....	268.00
Oct. 30—Manitoba Association of Architects.....	68.00
1919.	
Jan. 3—Saskatchewan Association of Architects..	64.15
" 9—Ontario Association of Architects.....	192.00
" 1—Bank interest	16.68
	<u>950.76</u>

\$1,905.48

1918. Disbursements.

Mar. 26—Desjardins & Bourguignon.....	\$ 18.50
" 26—Arthur A. Crawley Co.....	5.00
" 26—P. A. Gagnon.....	10.00
" 26—J. H. Kenehan.....	75.00
" 26—Alcide Chausse	60.01
" 26—Quebec Association of Architects.....	150.00
" 26—Victorine Morin	200.00
Oct. 23—Desjardins & Bourguignon.....	3.75
" 23—Alcide Chausse	44.55
Nov. 1—Minister of Finance (bond).....	200.00
" 23—C.P.R. Telegraph	1.16
" 23—C. W. I. Woodland.....	5.00
Dec. 13—C. W. I. Woodland.....	5.00

1919.

Jan. 11—Discount and War Tax.....	.70
	<u>778.67</u>
Balance as per pass book.....	1,126.81
Victory Bonds deposited with bank.....	200.00
	<u>\$1,326.81</u>

Mr. Hynes: This does not take into account the overdue amounts from various members, which form a considerable total, but for the reasons given by the Auditor the books in their present state do not show the sources of the assets, and it will be necessary to have them arranged.

On Mr. Hynes' motion the report was tabled, but not accepted.

TRIBUTE TO THE LATE EDMUND BURKE.

Mr. Acton Bond: I would like to place before you the following resolution adopted by the Toronto Chapter of the Ontario Association of Architects, with reference to the death of Mr. Edmund Burke, with a view to this Institute taking action along similar lines:

"Toronto, January 15th, 1919.

"The Toronto Chapter of the Ontario Association of Architects desires to record its high appreciation of the character, work and services of the late Edmund Burke, architect.

"For about fifty years Mr. Burke has been identified with the architectural profession in Toronto. Some of our members have known him during the greater part of this long period. Others have only had this privilege during the later period of his life. But all heartily unite in this testimony to his high professional standing, character and service, and desire to place on record our

deep sense of the loss suffered by the profession owing to his translation to another sphere.

"Commencing his architectural career as a student in the office of Gundry & Langley, he soon proved his ability and worth. He was chief draughtsman in that office when such important works were being carried out by the firm as the completion of St. James' Cathedral, the spire of St. Michael's Cathedral and the erection of the Metropolitan Church.

"Later on Mr. Burke entered a partnership with his uncle, Mr. Langley, under the style of Langley & Burke.

"For a great number of years this firm was prominent in architectural matters in Toronto and throughout Ontario. Besides great numbers of houses and commercial buildings, this firm designed a goodly number of church edifices. Naturally, Mr. Burke had a very large share in the designing and construction of those buildings, many of which still stand as monuments to his architectural ability. Later on in his career Mr. Burke formed a partnership with Mr. J. C. B. Horwood, and still later enlarged the firm by the inclusion of Mr. Murray White. This firm, under the leadership of Mr. Burke, has occupied one of the foremost places in the profession in Canada, and has designed some of the most important buildings in the country. Particularly has it been prominent in the designing of churches. In all his professional work Mr. Burke has brought to the service of his clients a wide knowledge of his profession, sound business judgment, high moral rectitude and painstaking care. No wonder his career has been a professional success.

"Busy man as he always was, Mr. Burke made time to help in an effective way the organization of the profession in Ontario, and later on in all Canada. He was one of the originators of the Toronto Architectural Guild, the forerunner of the Ontario Association of Architects. In those early days he did much to cement together the members of the profession and inculcate high ethical ideals in its practice. He took a leading part in the organization of the Ontario Association of Architects. He was President of it for four years, viz., 1894, 1905, 1906 and 1907. Much of the success of this organization has been due to the amount of interest and activity he gave to it, and his conciliatory way of reconciling the best in seemingly divergent ideas. He was for many years one of the examiners of the Association. In the Toronto Chapter of the Ontario Association of Architects Mr. Burke took an active and leading part. He attended nearly all its meetings, and gave much time to its committee work. He could always be relied upon, and his counsel and advice have been a great strength. Besides these strictly professional activities, Mr. Burke gave much time and effort to such affiliated associations as the Engineers' Club, the Guild of Civic Art and other public associations in the interests of art, science and philanthropy. Our friend, Mr. Burke, was a most public-spirited citizen, imbued with the real altruistic spirit. While always the champion of that which was true and lovely and of good report, his kindness of heart and graciousness of manner made him a universal favorite. We remember him as a Christian gentleman. We are glad to have known him, happy to have been associated with him, and proud of his memory."

The Secretary: Perhaps I might be permitted to add a word to this. When this Institute was formed, eleven years ago, Mr. Burke gave us very great and very valuable help. He spent time and money to bring the organization to a definite form, and it was through his efforts and through the efforts of another gentleman who has left us, Mr. Watts, that we are here to-day.

I would respectfully move that the resolution just read from the Toronto Chapter of the Ontario Association of Architects be incorporated in our Minutes, and that a similar resolution be adopted by this Institute.

This motion was seconded and carried.

GENERAL BUSINESS.

The President: Is there anything to be dealt with under the heading of "General Business"?

Mr. Wickson: There is a subject which I would like to bring up, but I am not sure whether it should be dealt with by the Institute as a whole or whether it is a matter for the Council.

I have a letter from Burke, Horwood & White, Toronto, to the effect that they are doing some work in Alberta and in the Province of Quebec, and the membership fees of each are charged against each member of the firm, which is a little burdensome, and which creates a hardship for architects in the Province of Ontario who execute work in another province and who are compelled to pay fees to the local Association.

They state there is only one fee to the Federal Association, but that they have to pay fees to the local Associations in each province. As an instance of the cost of doing business in the Province of Quebec, they state that this year they have had to pay \$25.00 for each member as a registration fee, and \$15.00 annually, thus making a total cost of \$40.00 for the year. They say it is necessary to pay this, although the amount of returns from the work they may do in the province is comparatively small.

They add that it would be a very desirable and useful thing if some working arrangement could be made between the associations.

Now, as I say, the question in my mind is whether this is a matter which should come before a General Meeting of the Institute, or whether it is one which should be dealt with by the Council.

The President: By the Council, I should say.

Mr. Hynes: I would move that it be discussed now. This is a matter of some interest, and inasmuch as we have really an inter-provincial conference here to-day, I feel that this is the proper time to discuss the question. We all know the tendency to have the practice confined to the provinces and states in which architects are located, and when they practice outside that territory they have to comply with whatever is exacted of them by the territory to which they go.

If a man has the privilege of practicing outside his own territory, I think it is a very small burden upon him that he should be called upon to contribute to the support of the architectural organization in that territory, and I would be very sorry, indeed, to see this meeting try to take from those various provincial associations the fees which they should get, particularly from a man who comes from outside. I think he should pay those fees, and pay them cheerfully.

The sum of \$120.00 was mentioned as being the fee exacted for the privilege of practicing in the Province of Quebec, in a certain case, but we must remember that the work done may have consisted of the putting up of a building which brought a very large return to the architect, and \$120.00 would be a very insignificant sum in comparison with it. I think the matter is of sufficient importance to justify us in discussing it.

Mr. Macdonald: I do not see how anything could be done without the consent of the various provincial associations.

Mr. Maxwell: As I see it, the assessment was positively ridiculous and unfair. I know the local associations are supported by the membership they have. At the same time, it may be that an architect in one province is called upon by a client to put up a house in another province. This house may cost, say, \$15,000.00 to build. Is it fair that he should have to pay \$120.00 to the local association for the privilege of being allowed to build that house?

I should think the more reasonable way would be not to charge each member of the firm those fees, but to charge them the regular dues.

Mr. Horsburgh: A matter of personal experience may be of interest. I have been working in practically all the provinces in recent years, and have paid all the fees. Of course, there have been formalities to observe in the way of registration, and so on, in each of the different provinces, but I do not remember being called upon to pay any considerable amount except in Manitoba. They seem to be very active in collecting.

Mr. Brown: The charters of the associations are granted by the Provincial Governments, and I do not see how we can dictate to those Governments as to what they should or should not do. If the charters provide that architects coming in to practice from outside the province must pay the registration fee and the annual dues, why, it must be done. Personally, I think it is a very small thing, so far as the amount goes.

Before the war we were doing work in all the provinces, with the exception of Ontario, and we paid the registration fees and our annual dues. This applies to both members of the firm, Mr. Vallance as well as to myself.

The President: Is it the sentiment of the meeting that Mr. Hynes' motion should be adopted?

Mr. Hynes: I did not make any motion, Mr. President. I simply suggested that it might be a good idea to have the question discussed.

The President: Has anyone else anything to say in regard to it? It is an interesting subject, and is worthy of discussion.

Mr. Acton Bond: Would it be a good idea to have the Secretary write to each provincial association, asking them if they would consider the proposition of charging only the annual dues? We might do this with the object of getting the views of the different associations.

The President: Of course, the difficulty is that the law in each province provides as to how the thing shall be done, and it has been done in that way up to the present. I do not see that we can do very much in the matter unless the provincial associations are willing to have their charters changed.

Mr. Acton Bond: My suggestion would embody the idea of asking them to do that, so as to have uniformity all over the country. It seems to me it would be a very desirable thing to have a uniform practice throughout the country, and I say this without in any way committing myself as to what that uniform practice should be.

The President: Is it a matter that is covered by the by-laws, or is it covered by the charter?

Mr. Wickson: It is a charter matter. I would suggest that the question be left for the Incoming Council to deal with. They have heard the discussion, and I think the matter has been fairly put before them.

PLACE OF NEXT ANNUAL MEETING.

The President: The next order of business is the selection of the place of the next General Annual Assembly.

The suggestion was made last year that this year's annual meeting should be held at the same time as the annual meeting of the Province of Quebec Association of Architects. It was furthermore suggested that in the future we should endeavor to have the annual meeting of the Institute held at the same time as the annual meeting of some of the provincial associations. I think this is a good idea, and it seems to have borne good results. Of course, it is for you to decide whether we should continue along those lines.

Our main object is that we may be sure of getting a quorum to hold the meeting. When we met in Ottawa last year we could not secure a sufficient number to form a quorum, notwithstanding our best efforts.

The Secretary: Personally, I am in favor of having our meetings at the same time as the meetings of one or other of the provincial associations. The success of the idea is apparent to my mind in our present meeting. Last year, notwithstanding our best efforts, we were only able to secure thirteen members for our meeting in Ottawa. The year before that, when we met in Quebec, Mr. Ouellet had to hunt up all the architects he knew in order to enable us to form a quorum of fifteen. With very few exceptions, we have had difficulty in getting the necessary number to form a quorum.

If the Ontario Association is holding an annual meeting this year, we might meet with them. Or, if we succeed in helping the Maritime Provinces in forming an association, we might go down there and meet with them at the end of the present year. We might go to Halifax, or to St. Johns, or to Prince Edward Island. There are only a few architects in that district—not a sufficient number to form an association in each province—and the suggestion is that they should form an inter-provincial association. Until the matter takes some definite form, it might be left to the Council. It was suggested that we should go to Ottawa again, but I do not know that I would be in favor of the idea, particularly in view of the lack of success we had in forming a quorum there last year.

Mr. Maxwell: Do you think you would get a quorum in Prince Edward Island, or Nova Scotia, or New Brunswick? Of course, I am prepared to admit that it would make a very nice trip, but, from a practical point of view, do you think you could hold a meeting?

Why do we not consider the advisability of having an exhibition of some importance and on a large scale which would attract the membership? We might possibly have an exhibition of town-planning, referring more particularly to industrial town-planning. I am sure a splendid exhibit could be organized, which would be of a great deal of interest to the architects and to the public in general.

Mr. Acton Bond: I move that the matter be left in the hands of the Council to deal with, in the light of the suggestions which have just been made.

Mr. Brown: Do I understand that the idea is to have another meeting this year?

The President: The 1919 meeting.

Mr. Wickson: This is the 1918 meeting.

The President: It is moved by Mr. Acton Bond, seconded by Mr. Baugrand Champagne, that the matter of the time and place of the next General Meeting of the Institute be left in the hands of the Council. (Carried.)

The President: This completes the order of our business, according to the programme for the morning session, unless there is something else to come before the chair.

There are many subjects of interest to us which might very well be discussed now, and if any gentleman present has anything he wishes to bring forward I shall be glad, indeed, to listen to him.

CANADIAN PRACTICE AND OUTSIDE COMPETITION.

Mr. Hynes: I have a matter in mind which I would like to bring before the Institute, with the idea that it might perhaps be discussed.

As far back as January, 1917, there was a movement made in Toronto that some representation should be made to the Government to the effect that it should not patronize outsiders and discriminate against the engineers, architects and contractors of our own country. This was particularly with regard to war work.

Considerable thought and time was given to the subject in Toronto, and it occurred to me that it might be well if the question was summed up here and some action be taken by the Institute, from the point of view that we are a Dominion organization and that our relations are with the Dominion Government.

Mr. Acton Bond came in contact with the Chairman of the Toronto Branch of the Manufacturers' Association, and a meeting was convened which the builders, the engineers and the architects were asked to attend. Two committees were struck after some discussion, one to get data as to where and when the Government and other large concerns had passed over Canadian resident architects, engineers and builders and employed outsiders. The other committee was appointed to see what policy could be formed and put up to the Government that it should adopt and make, if not law, at least an accepted practice by the Government, and probably by large corporations under the Government's control.

Eventually a memorial was prepared and circulated. It was not presented to the Government, however, because the General Executive of the Manufacturers' Association did not quite see the matter in the same light as the Toronto Branch of the Association saw it, and hesitated to ask the Government for an appointment to present this petition.

While the matter was still pending, the Government resigned, and the present Government took office. It was then felt that this petition did not fit the case for presentation to this Government, and the committees were practically dissolved.

The builders held their own assembly, and presented their own petition to the Government at Ottawa a month or two ago, but, so far as the architects are concerned, the question has been left in abeyance.

I think this is a body which should discuss and consider the matter, and I think it is also probably the proper thing that we should have the engineers join us in any movement to be made, because they are absolutely on the same footing as we are before the Government.

If we are complaining of the situation, it is up to us to suggest the remedy, and I would like to have the matter discussed before this meeting from the different points of view from which it may be seen.

Mr. Wickson: My impression is that we ought to meet the Government in connection with this question, and that the memorial to which Mr. Hynes referred, and of which he was the originator, would probably serve to form the basis upon which we could bring the matter before the Government. It may have to be modified in some respects, or some new ideas may have to be added to it, but, in the main, I think it covers very fully and completely the point of view which we should present to the Government.

I feel that it would be very desirable to have the members present at this meeting express their opinions in regard to it. I am satisfied that the Incoming Council would be very pleased to have any suggestion that could be made as to the lines along which they might act.

Mr. Hynes: I must apologize for rising so often, but this particular thing seems to me to be one of the real objects of this Convention. Mr. Wickson, Mr. Shepherd and I have gone over the ground and had a good deal to do with the preparation of the memorial of which I spoke. It might be worth while that I should read it to you so that the ideas contained in it should be before the meeting, and something may come from it. It is roughly drawn up in the form of a petition, and may not be absolutely consistent in all respects, but, at the same time, I think you will grasp the ideas as they are developed.

It was thought after the committees that worked on the original memorial were dissolved that each party (Manufacturers, Builders, Architects and Engineers) would prepare their own memorials and present them at the same time. This the Builders did, but the Architects, not having held their convention at that time, had not adopted a memorial when the Builders presented theirs.

The memorial reads as follows:

"July 9th, 1918.

"In support of the memorial presented by the builders, the R.A.I.C. wishes to state that the grievance complained of is due to the unfortunate belief on the part of a large portion of the business community of Canada that the ability of Canadians is inferior to that of our neighbors; even more unfortunately, there has been too much evidence that this opinion has also been held by several Governments in Canada.

"The Institute submits that this opinion, however honestly held, has been amply refuted by the part Canadians have taken in the situation created in Canada by the war. Canadian ability and energy overcame every obstacle, even the Government's distrust of their ability, and created an army and produced munitions in quality, quantity and speed unsurpassed in the world, and that, too, notwithstanding that it was an activity in which they had had no previous experience.

"Many of our citizens are serving in every war activity with a distinction that might well be the envy of older and larger countries, and there is absolutely nothing to suggest that the brain power of this country is in any way inferior to that of any other country in the world.

"The importation of outsiders on the plea of their being experienced, if carried to its logical conclusion, would mean that, except in the case of re-election, no native would be elected to Parliament, but experienced legislators would have to be imported from abroad; no new native blood would be introduced into the Cabinets of our country because of inexperience, thus compelling the importation of Ministers from other countries; in fact, we might even have to seek in distant fields for our Premiers. This, our Government must admit, would be

intolerable. An analogous condition exists to a certain extent in the building operations of the country, and we bring it to your attention that it may be remedied.

"We contend that Canadians have demonstrated during the war that they are equal to any task, and required only the opportunity to prove it. For this reason, if for no other, they are entitled to all the opportunities that arise in their own country.

"The grievance of the builders is also ours. For more than twenty years serious work has been done, and has resulted in making the architectural profession one worthy of the country's recognition. Provincial associations were formed from time to time to promote the cause of education, and finally, some ten years ago, a Dominion association was organized, received its charter from the Dominion Parliament, and two years later had the title 'Royal' conferred upon it—that is the Royal Architectural Institute of Canada, which we represent here to-day. Universities in Quebec, Ontario and Alberta have been conducting architectural courses. These efforts, however, have received scant recognition, either by your Government or the public at large, and it is felt that until the Federal Government gives a national status to the profession it will always be handicapped in its efforts to render service to the community and to itself.

"In bringing to your attention the difficulties under which native architects practice in Canada, we wish it to be clearly understood that it is not only architecture that is thus affected, but all the technical professions, the practice of which is not conserved by the provinces for those trained for these professions by the provincial educational institutions, and that while the practice of these professions is a civil right, and therefore, subject to regulation by the province in the province, it is also wider, in that the Dominion Government has a need of the developed manhood resources of the Dominion, and, therefore, a responsibility in connection with this development.

"It is the Dominion Government that prosecutes war for this country and highly developed men in the technical professions of which we speak are the first requisites for efficiency in war. The responsibility of the Dominion Government is no less in times of peace than in times of war, for it is in times of peace that the country must be kept efficient to meet any war emergency; and, further, no Government can in times of peace afford to be indifferent to the economic value to the country of a highly developed, technically trained manhood.

"In considering what the Government of the Dominion has already enacted affecting the practice of architecture in Canada, we note that there is a Customs tariff which imposes a duty on plans imported into this country of 22½ per cent. (plus a war tax of 6½ per cent.) on one per cent. of the cost of a building. However satisfactory this measure may be for the purpose of raising revenue, it is practically useless as a protective measure to the architectural practice of the country. It is easily avoided, and frequently evaded, and is extremely inadequate, amounting, as it does, to less than three hundred dollars on every hundred thousand dollars cost of building.

"The Alien Labor law is another Dominion enactment which might be thought to ameliorate our grievance, but on examination it is found that it is not enforced in regard to the professions, and though it is a reciprocal measure, it works to the disadvantage of this country. The United States permits an alien architect or engineer properly accredited to practice personally in that country, but absolutely refuses to allow him to transfer his organization to that country. In Canada, on the contrary, temporary offices are established by outside practitioners, and the principals do not personally conduct their operations—in many cases rarely even visiting the country.

"That a Government should develop its manhood resources is a vital principle for which we ask recognition. It is more crucial than even the development and conservation of any material resource.

"In this connection we may point out that your Government maintains a number of departments, presided over by Cabinet Ministers, which are devoted entirely to material development, and, in addition, has a Commission of Conservation, which, with the exception of its departments of Public Health and Town Planning, is also entirely devoted to the material development of the country.

"In acting on this principle, it is manifest that the point at which the provincial institutions graduate their men is the one from which the Federal Government should carry on, and not only facilitate the further development of those graduates, but by all possible means retain their manhood and brain power for the service of our country. At present many who obtain their technical training in this country leave to practice in other fields, as the greater part here is not given to the resident practitioner, but to outsiders; this entails the economic loss to the country of the trained citizen, whose education it has largely paid, and also the benefit arising from the experience which new opportunities give to the practitioner. From an entirely different point of view, but at this time almost vital, your Government would be justified in prohibiting Canadians employing outsiders on the ground of helping to maintain a favorable balance of trade for Canada.

"Canada has taken the part of a nation in this war, and it is the duty of her Government to see that she takes no less a part in the civil activities of the world. Situated as Canada is, with a wealthy and aggressive nation of vastly greater population on her whole southern border, it needs the strongest influence of her Government to prevent her industrial activities and her technically trained men from being overshadowed by those of her neighbors, not only in the eyes of the world, but even in the eyes of her own citizens. This fact is illustrated by this delegation to-day calling to your attention the disadvantages they are laboring under in their own country. For this reason, and in the face of the keen competition which will be felt amongst all

nations in post-war times, we submit that the time has now arrived when it is the inherited duty of the Government of Canada to develop a Canadian national spirit, and to this end to:

"First, give a national recognition, status and patronage to all activities developing the manhood and brain power of Canada; and,

"Second, establish national standards for all products of Canada of such a high degree as to command the recognition and respect of the world."

Mr. Hynes paused here in reading to refer to the report of the Conservation Commission on Fire Waste, in which it is pointed out that all the standards for Canada are set by American laboratories. He explained that there were no testing bureaus in Canada, and nothing to set standards that are practical. Even the English materials are only accepted by the insurance corporations of Canada when they pass the American laboratory tests.

In reference to "national recognition of Canadian manhood" and "national standardization of products," the wording of the petition continued as follows:

"The first may be accomplished by establishing a Canadian National Institute of Art and Science, to which would be drawn the recognized ability of the entire Dominion in all the arts and sciences, and which would give the practitioners of them a national status and recognition. Such an institute would also serve the Government with advisory boards, the value of which has been demonstrated by the use the various Governments have made of such boards during the war.

"The country has to acknowledge the immensely valuable service that the medical profession has rendered by preventive measures applied through the departments of public health, and it is absolutely certain that it will have to acknowledge an equal debt to the architects and engineers when it gives them proper legal facilities to control town planning and housing. These would open the way for the rendering of an untold economic, physical, mental and moral service to the community during the reconstruction work upon which Canada is now entering. While activities under this department may for the most part be matters for action on the part of the provincial governments, the Dominion Government should certainly lead the way by insisting that the art and science of town planning and housing shall be exercised in all developments under its charge, or under the charge of corporations acting under Governmental authority, such as railroads, for instance, which would be under control in regard to the location, plans and development of all town sites on railroad developments throughout the country. All corporations acting under Dominion charters should also be required to patronize native technical talent and live up to a modern standard of town planning and housing.

"The Dominion Government should make the national capital an example of what the art and science of town planning can do for cities, thus giving the art and science a national recognition and setting a standard for other cities in Canada. In stating this it is not forgotten that a town planning scheme has already been prepared for the capital, but, on the other hand, neither is it forgotten that the scheme has not been made operative; cities being active organisms, are in course of constant change and require fair and constant application of the art and science of town planning to economically attain a satisfactory development.

"There are four Royal Societies in Canada pertaining to art and science:

- "The Royal Academy of Art,
- "The Royal Architectural Institute of Canada,
- "The Royal Society of Canada,
- "The Royal Canadian Institute.

"The lack of recognition that the Dominion Government gives them is exemplified in the appointment of the Government Art Purchasing Committee, to which not a single member of the Royal Academy is appointed; and in the case of the Royal Institute of Canada and the Royal Architectural Institute of Canada; to neither of these is recognition given of any kind, financial or otherwise.

"The anathy and indifference on the part of the Government to the activities in Canada, which we have brought to your attention to-day, we feel assured is only apparent, and in view of the national importance of developing the manhood of the country and of maintaining a high standard for its products, we petition your Government:

"First, to appoint a Commission to establish a Canadian Institute of Art and Science; and,

"Second, to appoint a Commission to establish a Canadian National Department of Standards."

The President: Have you anything to say on this interesting subject, Mr. Venne?

Mr. Venne: I do not know that I can add very much to the able summary we have just heard. The principle is very clear, and the petition very well expresses a desire which has been long in our hearts. The Government should recognize our artistic organizations, and should recognize the ability of our Canadian architects.

While Mr. Hynes was reading his paper it brought to my mind a law that was passed by Constantine in the so-called barbaric ages when Art was nearly extinct. Architects were so few and so far between that the Emperor had to pass a law which provided that parents who would send their sons to study architecture were to be favored in certain ways, especially in the way of exemption from service in the armies, and this protection was extended for a long time.

In this country what we want is the recognition of the Canadian architect when public works or works for large corporations are undertaken. We feel that Canadian work should be given to Canadian architects. I am inclined to go further than Mr. Hynes, and to say that, even if the Canadian architect was a little less efficient than the stranger, still he should get the work. If the big work goes to foreign architects, how will the Canadian profession progress? We only want an opportunity to produce good and artistic work in this country, and I think a petition somewhat on the lines of the one just read should be presented to the Federal Government, and perhaps also to the provincial legislatures.

Mr. Riley: I think we owe a great debt of gratitude to Mr.

Hynes and his fellow-workers for the preparation of the memorial he has just placed before us.

It seems to me that the lack of recognition on the part of the Dominion Government may possibly be due to lack of knowledge of the various members of the Dominion Government. If we were to take the entire Government as a body, I think we would find only a very small percentage of its members who know that there is such an institution as the Royal Institute of Architects, and I believe this is really a matter which should be laid before them. Having taken it up, we should keep at it. Do not drop it after presenting the petition. It is something that must be followed up. If you want to get anything, it is not sufficient simply to ask for it; you must keep on asking until you get it.

I am satisfied that if we follow up the recommendations set forth in the memorial we have just heard we will arrive at the final goal we are endeavoring to reach. I do not know that I need say anything more, except that I believe this to be a move in the right direction, and that it is time Canadian architects should be recognized according to the ability which they have shown themselves as capable of putting forth.

The President: What do you think of the subject, Mr. Maxwell?

Mr. Maxwell: The idea, to my mind, is an excellent one. It requires considerable digesting, of course, but I feel that it should be urged forward with all the energy possible. It seems to me that there has been a little more recognition of Canadian architects within the last two years than was formerly the case. Of course, nine-tenths of the population does not know that the R.A.I.C. exists. I happen to know of its existence myself once a year, because I get a notice.

Mr. Acton Bond: I am very much in favor of the movement. I think we should carefully consider the material which has just been placed before us by Mr. Hynes, and should urge the subject forward as soon as possible.

My idea is that a committee should be appointed to take the matter up, and present it as carefully as possible, and as soon as we can.

Mr. Macdonald: It seems to me that when a measure is introduced before the House it does not depend altogether on the presentation of the case as to whether it shall or shall not be accepted. I think the representatives in the House from the different provinces should be fully educated and informed regarding conditions as they exist, so that before they come to deal with the matter in the House they are aware of its nature, and you have a measure of support which can be depended upon and which will make it an active issue when the question comes up.

I offer the suggestion that the representatives from the different provinces should be fully informed in advance, so that they may know the nature of our complaint and the remedy we seek.

Mr. Amos: Is it the intention to try to have a law passed which will prohibit the employment of other than Canadian architects? If that be the case, I do not think we shall succeed. I think we should ask the Government to encourage the Canadian architects exclusively. In their specifications they absolutely forbid any American or imported material being used when Canadian products of equal quality can be obtained. Of course, the case is different in regard to a profession. There might be some instance where a European, or a specialist of some other nation, could be with advantage called into consultation. If there were a law passed preventing this it might prove awkward in certain cases where only a Canadian would have to pass on a point.

I would strongly suggest that the Ministry be interviewed, and the desirability of giving Canadians a fair deal—more fair than they have been getting in the past—should be pointed out to them.

I would suggest, also, that if the Canadians were not entirely trusted in the past through want of experience and want of knowledge, that the Government should subsidize the various schools of architecture, in the way of special prizes, for instance. In Paris the Government gives special prizes, which is really a subsidizing of the candidates. Why should we not have that in this country, and give our students a greater incentive to develop the profession.

Mr. Hynes: I would be very sorry to think that we were asking for a Chinese wall, or anything of that kind. As a matter of fact, we are only asking for proper recognition.

It has been stated that we should inform the members of Parliament and the members of the provincial legislatures as to the nature of our complaint and the remedy we seek. For two years I have tried to deal with this question as seriously as I could, and I must say I found very few architects who take much interest in it. I think that is one reason why there is no interest shown in it before the legislatures.

I have found very few architects who can agree as to what they consider should be the platform to present before the provincial governments, or upon which this Association should stand before the Federal Government. Until we find some ground upon which we are unanimous, we cannot expect to get the hearing we should get.

I think the situation is very clear as far as the practice of architecture is concerned. It is a matter that must be dealt with by the provinces. They have authority over manhood and property rights, and the practice of architecture comes under the former law.

The difference between our profession and the professions of law, medicine, etc., is that the men in those other professions when given their degrees, have the work in the province conserved for them. In our profession, the provinces provide the technical education, but does not conserve the practice for the men they train.

If it is good policy to conserve the practice for one branch of technically educated men, why is it not equally good practice to conserve it for other technically educated men?

In Ontario, and I have no doubt in the other provinces, we point with considerable pride to the standard of practice in medicine, law, dentistry, veterinary surgery, chemistry, etc. We are ready to meet the world in these things, and the practices in the provinces are conserved for the men who are educated there for these professions. The greater number of men who take the courses remain in the country and practice their profession.

In the University of Toronto the largest single faculty is that of engineering. Up to twelve or fifteen years ago 50 per cent. of the students of that faculty left Canada, and to-day, I believe, 50 per cent. of them leave the province. It costs the Province of Ontario two-thirds of the expense of educating a student: in other words, the fees of Toronto University are just

about one-third of what it costs to keep the University running, and the province fails in economy in spending money to educate people who do not remain in it and practice their professions after they are educated.

The president of the college told me on one occasion that two of his most prominent students had gone to Pennsylvania, and one had gone to New York. The Ontario Department of Education is not in existence to educate men for New York or Pennsylvania. Its object is to educate men for Ontario.

It is necessary economically that the work should be conserved for the men who are trained in the province, and it is economically right as well; yet we are losing the very best men we train because the field is larger elsewhere and the best things that are in our own field are not given to the local practitioner.

My idea is that our educational departments should follow the example of the State of Illinois, where they have established a Department of Education and Registration. They train the men, and register them, and the practice in the state is conserved for them under certain very liberal conditions. I think this is the nearest to an ideal working scheme that has yet been put forward, and it might well be looked into by the Canadian provinces with a view to adoption.

When it comes to a question of dealing with our Dominion Government, the case is somewhat different, because the Dominion Government is not in a position to pass legislation controlling our practice. It is not within the sphere of the Dominion Government, but it is in a position to give us recognition and to see that other large corporations recognize the local practitioner.

Mr. Monette: We have heard many suggestions on this subject, and I have one to make which may meet with your approval. We are not represented in the Government at the present time. Why should we not be represented? I think the best thing we could do would be to elect some of our members to represent us. If we did this, our interests would be protected.

As it is, the Government is made up of too many lawyers, too many doctors, and too many of other professions, and the architects are not represented.

The President: I am sure we have all listened with a great deal of interest to what has been said on this important question. We all seem to endorse the principle set out in the memorial just presented to us, but we have not gone any further. For my own part, I think something should be done at this meeting. Perhaps a Committee might be formed to study the subject and draw up a memorial along the lines of the views set forth here this morning.

We have been working on this matter for a number of years. Unfortunately, the time was not favorable for us to lay a proposition before the Government, but I think the time is now ripe, and the sooner something is done the better it will be.

It might be well for somebody to suggest that a Committee be appointed to take some definite action.

Mr. Maxwell: The Council which will be elected will hold office for a couple of years probably, and would, I think, be in the best position to decide as to what should be done.

The President: Would you make a motion along the lines that the Council should take the matter up?

Mr. Maxwell: Unfortunately, I am not sufficiently in touch with what has taken place so far to make any suggestion of a definite nature.

Mr. Brown: I think the meeting should say whether it wishes a committee appointed outside the Council, or whether it would be better to leave the matter in the hands of the Council.

Mr. Beaugrand Champagne: I would move that the matter be left in the hands of the Council, for immediate action.

The motion was seconded by Mr. Hynes, and unanimously carried.

Mr. Riley: Is it the intention to deal with the Federal Government, or to deal with each of the provincial governments?

Mr. Hynes: Each provincial association will have to deal with its own provincial government, and this Institute will deal with the Federal Government.

The provincial societies should keep in touch with each other and have an interchange of thought, and whatever action is taken should be uniform. Of course, it would have to be through the respective societies to their respective governments.

Mr. Wickson: If any delegation were appointed to approach the Government, I think it would be most desirable to have representatives from all the provinces in attendance. The members of the Government are influenced to a great extent by the fact of the thing being representative of the country, and not a local matter.

I also think that the deputation should be as large as possible, and that those who are anywhere within reach should form part of it, and the distant parts of the country should be represented by at least one or two members.

The President: I think it is a very good idea that every one who can possibly do so should be present to show that we are all interested in the matter.

In answer to Mr. Hynes' statement that there is not much discussion on the subject, I would say that this may be due to the fact that we all think as he does.

Mr. Hynes: I think it is due to the fact that there is no unanimity. I think we should all read Sydney Webb's paper before the Royal Institute of British Architects, to get some idea of what part the architect plays in the community. With that as a starting point we may get to something definite.

The unfortunate thing is that we seem to want the Government to do something for us, without having made up our minds definitely as to what we want. I have an idea that the duty of every citizen is to render service, and if the Government will give us the proper legal facilities we can be of service to the Government. If the provinces will give us proper facilities, we can do untold work in town planning for the community. If the Dominion Government will give us a proper status we can get a real type and air of Canadian atmosphere for our buildings and our structures, and there will not be an imported art dumped in on us—it will be something of our own.

Mr. Venne: I notice that a good deal of importance seems to be attached to the fact that the governments should do something for the profession. As a matter of fact, something has been done by the Province of Quebec, for instance.

There is another point which has not been dealt with, and that is in regard to our large public corporations. Our banks, which draw their revenues from the country, and our railway

companies, which draw their revenues from the country, employ foreign architects. They are the people who should be approached.

If there is anything that can be done by the Government to control these companies and lead them to recognize the profession in the country, it would be an important step, to my mind.

I do not remember, except in one case in Toronto about thirty years ago, that the Government employed foreign architects. Our main difficulty at the present time is that large corporations employ American architects, when they might get the same service—and perhaps even better service—by employing Canadian architects. I believe this is a point which should be studied by the Committee.

The meeting then adjourned to the St. James Club, where the

delegates were entertained at luncheon as guests of the Montreal members, whose hospitality during the entire assembly made the visitors' stay in Montreal a most delightful one.

AFTERNOON SESSION.

The afternoon session was called to order at 2.30 p.m., when President Ouelett introduced Mr. Claude Bragdon, a prominent architect of Rochester, N.Y., who had kindly responded to the Council's invitation to address the Institute on the subject of "Architecture of the Future." Mr. Bragdon's professional reputation, the President explained, had already preceded him to Canada, and he felt that the members would derive much pleasure and benefit from what he would have to say to them on this occasion.

Mr. Bragdon's address in full was as follows:

Architecture and the Future

Address Delivered by Claude Bragdon Before the R.A.I.C.

EMERSON somewhere says that we should suffer no fiction to exist for us. How many fictions sacredly cherished as truths the war has already snuffed out. An earthquake is the only adequate symbol which expresses the effect of this war on consciousness, and it may not be an unprofitable exercise this afternoon to discuss and try to discover some of the fictions in which our particular profession is more or less enmeshed.

Before the war the architectural chariot trundled along a nice, smooth road surrounded by scenery decorated with all the ancient grandeurs, and just when we fancy we are safest the road becomes a yawning chasm, and the ancient grandeurs are beginning to disappear in their own dust.

The logic which has always seemed to me a little thin, that a perfect continuity should exist between the past and the present, and between the present and the future—that precedent should always control and govern progress—has suddenly seemed to become invalid, because architecture in its last analysis is, after all, only a reflex and a reflection of consciousness, and consciousness is now moving in a direction at right angles to every known direction.

If consciousness is moving thus, what becomes of architecture? It must follow the expression of movement of consciousness, otherwise it can only produce works which are dead before they are born. Now, when we come to think it over, is not that very largely what we have been doing—the production of works that are dead before they are born?

We have been immersed in the glory that was Greece and the grandeur that was Rome. We have been keenly alive to every manifestation of beauty in every civilization with which history deals. We have made pious pilgrimages to the wrecks and ruins of ancient civilizations. But, how much have we sensed or realized of our own civilization which contains, perhaps, not so much of glory and grandeur, but which is highly dramatic, highly significant,

and which has brought into the world certain things that are unprecedentedly new?

Of course, it is no fault of ours that we have failed to sense modernity, for each is in the same predicament. I do not imagine that the architects of Athens, or the painters of Florence had much of an idea of what we call the age of Pericles, or what we call the time of Lorenzo de Medici. They were up to their necks in what they were doing, and they did what they did instinctively; but, at least they did it with some relation to everything else that was going on around them. They were the moderns of their day, and they strove to be as modern as possible.

Our predicament is that we are in the position of the fish. We do not know anything more about modernity than the fish knows about water, which is the very medium in which it lives and moves. We splash about in this medium, and we are tremendously busy, but we know very little about it. We do not sense it dramatically.

So far as I know the only man in the age in which we find ourselves who sensed it was Walt Whitman, who sensed the idea of a great democracy merging forward to some unprecedented destiny.

Now and then we glimpse the wonder and mystery of modern life, the silence of great spaces, the din and glare of great cities, the clatter of factory windows working overtime, the hunger in the hearts of the people who go to the movies and push away the hero and the heroine so that they may act the parts themselves, the festering slums cheek by jowl with the comfortably protected happy homes, each one oblivious and ignorant of the other. We look at a map of America, and we see those great cities, some of them larger than my own city, which have grown up within our own lifetime, strung along the railroad like beads on a string. We go through them in the night, half awake, and they mean no more to us than so many feathers dropped from the wing of sleep.

If we can get a more dramatic, more poignant, more intense sense of our civilization, our work would undoubtedly profit by it, because, as I said before, architecture is nothing but the expression of consciousness. Think of our great ocean liners, and of our great hotels, each one a microcosm in itself—a suicide perhaps separated only by a thin wall from a bridal chamber—the stokers in the hold, and the fortunate walking the free air on the deck. Nothing like it has ever been seen before. It is intensely dramatic, and being intensely dramatic it is very much the subject for art. Not directly our particular art, perhaps, which is more sluggish in its following of the movement of consciousness, but yet I feel that if we preoccupied our minds with these things, instead of with Greece and Rome and Egypt and medieval France, our work would flush with a new life and a new meaning, and we might lay the foundations of an art which would truly represent our consciousness and our state.

The architect is, from his very nature, an interpreter. At its best architecture interprets the absolute beauty to man—interprets God to man; at its second best it interprets man to himself; at its third or fourth best it interprets the architect to other men. Of the first we have nothing. Of the second we have a little. Of the third we have a great deal.

After all, is not a great deal of our preoccupation with expressing our individual preferences and writing large in space and in permanent materials our individual predilections and tastes? There is just one degree lower than that which we are often forced into, and that is expressing the predilections and tastes of our clients.

I do not talk to you here today as from any superior point of view. We are all in the same welter. We are all immersed in the same sin and the same suffering, and I do not want you to think that I am preaching to you. We are just fellow craftsmen talking together and trying to get a vision of what the future may hold for us as architects, and what our duty is.

The note of service was sounded here this morning, and that is the note which we must continue to reiterate. We want to serve. How shall we serve best? Whom have we served in the past? Has it ever been really the people? Have we not served ourselves, and have we not served our clients who are, for the most part, what are called capitalists, or the Government, which for the most have been politicians. Have we got to the hearts of the people? And by the people I mean the long denied, those who have never found voice, who have been crushed down under a system which the war is making forever impossible?

I speak from peculiar experience, and there-

fore with peculiar authority about the wonderful potencies that dwell in the long denied—the potencies of creation, the potencies of appreciation, the potencies of co-operation.

We as architects have been shut off from the craftsman. We have approached him as third or fourth removed. We work through the contractor, and he works through those men, and we seldom come into personal vital touch with the man who executes what we have conceived.

Consider how different the situation was in medieval Europe when the great cathedrals arose, each man an individual craftsman, let to work his own fancy in the work of his hand. I feel that some return to that condition of things will be a glorious advantage for our part.

I know and you know that the people love beauty. I have not the presumption to say that I have ever given them beauty in the way of architecture in three dimensions. No one man can ever do that. Architecture is a growth—it is an accretion. It is like a coral island which is built of hundreds of thousands of consciousnesses, but consciousnesses which are working in one direction and towards one destiny.

We are working at cross purposes. The pundits in our profession have no common agreement among themselves. Cram will write an article to prove that Gothic is the only style worth consideration. Hastings will follow it by an article which pooh poohs the whole proposition, and says the Renaissance is the only legitimate successor of the styles of the past. Think what confusion it must awaken in the minds of the young men who are eager to learn and absorb.

We have no common ground, and the reason for that is that we have assumed we were building on a something that was already existent. For my part I am very glad the war has made it forever impossible that we should put the cap stone on the Victorian art. I would much rather be digging down at the foundations and putting in the footings of the architecture of the future with no hope that I would ever see the structure arise.

I do not want to be a prophet of despair. I have not come here for that. My idea is to indicate, if I can, the development which our art may possibly undergo under the changed conditions of consciousness which are now operative in the world. Before I get to that, however, I shall have to make a classification, in order to render my meaning clear. There are not five orders of architecture, nor are there fifty—there are only two, and I call them “arranged” and “organic.” This is a classification which is independent of time, or country, or period. These classifications correspond to the two classifications of the human mind which

we express indifferently as "talent" and "genius"—bromide and sulphide—the recent and the ancient—the conservative and the radical.

The one type is governed by reason, the product of taste, often immensely competent and very convincing, but following a law all its own. It seems to say "I will show you a trick worth two of yours"; and we find when the thing is done that it has been done by some Euclidian arrangement of lines and circles.

The other seems to come from some obscure inner necessity. It seems to be not so much the man as the work that is through him and in him. "The passive Master lent his hand to the world's soul that o'er him planned." It is organic in the true sense. People do not have to be taught to understand it, because they have the meaning of it in their hearts.

Of course there is no hard and fast demarcation between those two orders of architecture. One often merges imperceptibly into the other. But, roughly, organic architecture is that architecture in which the form everywhere follows the footings and expresses the foundation; and arranged architecture is that architecture which is built up on some predetermined canon of beauty. The organic is not so much to make a thing permanent and expressive of its inner nature necessity and function as that it shall be a pleasing combination of light, and shade, and masses, and materials.

Looking down the centuries we find that the most perfect expression of the organic spirit in architecture was in the cathedrals built in northern Europe from the eleventh to the thirteenth centuries—the golden age of the cathedral building. They are palpitating with life—they are ever various—they are ever free. They are built just as a bird builds its nest, one might think—through some inner compulsion.

As you know that was an intensely religious era. There was one dominant religion, to which everyone subscribed and conformed. It was the age of mysticism. It was the great age of the Christian Church.

Then, as life became more secular there was a change to the arranged architecture of the Renaissance, and that has proceeded down to what is sometimes called the scientific century—our own time—which has been called by Kimball the Post Renaissance.

The wave of arranged architecture has not yet died on the beach. It is the one in which we are largely living.

I believe there are very good reasons for thinking that the next manifestation of organic architecture will be in the true sense organic, and by that I mean something entirely different from a reversal to the Gothic. I mean the inner spirit of organic architecture. I believe we are approaching a great spiritual Renaissance.

I think that the spirit of brotherhood and the spirit of service born in the camps, and cemented on the battlefield and in the trenches is to all intents and purposes the new religion of humanity. I think it will prompt men to such strange renunciations, such psychic renunciations as have characterized religious upheavals in times past. I think it is doing it now, and I think we already feel the breath of that new wind of the spirit which is to regenerate the world.

A great many people look with distress and foreboding at what they call the irreligion of modern times, but to my mind, they have entirely failed to read the spirit of the times. The fact that the spiritual sense fails to express itself in any large and vital way through the studied channels of our churches does not mean that God has ceased to speak to men; it does not mean that man has become irreligious; it merely means that God is speaking to man in a new way—and I will make so bold as to say (I am very indiscreet I know) that the real essential trouble—and there is a real essential trouble—between the returned soldiers and the Y.M.C.A. is the failure of perception that the soldiers are getting their religion through other channels than the Church, and the religion they are getting is real religion—vital religion. The matter does not hinge at all on the price of cigarettes, or anything of the sort. It is something that cannot be formulated in words, and it is something that can never be brought out in an investigation.

For me, the men who have given over everything, who have been face to face with death, and who have seen their comrades struck into temerity in the twinkling of an eye are getting spiritual compensation and spiritual refreshment from that new religion, and they do not need a dogma or a creed interposed between God and themselves.

If this hypothesis is correct, if religion is renaissant in the true sense, we will have an organic architecture expressing itself in new ways, by people who are not its slaves, but who are its subjects—the subjects of an over soul, of a Demos, of a Divinity, which is using men as we use bricks to build a great temple which is not made with hands.

That is the essential and all important and all embracing change which will come to our art if things turn out as it seems to me they may, judging by the indications we already have before us.

But, to come down more to essentials, let us see if we cannot in a more concrete way discover some of the characteristics of the architecture of the future.

It will be democratic. It must be so, because the people will rule. And if we as architects

fail to make the people our clients, we will have failed—they will not.

You will find that the people will make wonderful clients. They have never been tested and tried in the way of being clients. We have given what we thought the people wanted, but have we given them sheer beauty? No, we have given them archeology, and often very bad archeology at that.

For three years I have been creating beauty in light—and light itself is beautiful—I did not create it, God created it. I have been creating beauty out of doors, in parks. Mr. Barnhart has had those wonderful choruses, getting all the people to sing just for the joy of singing. We have had color, light, motion, song. There was nothing but beauty to attract the people, yet they flocked to it as moths flock to a flame. We were not trying to put over any propaganda or anything of the kind. It was done purely for the love of beauty and for the joy in the hearts of the people.

From watching the reaction of those great crowds, I know that the people respond to beauty, if you give them beauty.

Now, it is our problem to be sure we give the people beauty, and if we do they will respond to it without fail—automatically—they do it instinctively—they could not resist it if they tried. It is the very nature of beauty—it is like sunlight.

A new note has been sounded in diplomacy, in business and in social life, and it is expressed by the phrase "Live openly; let in the light." Already by the operation of an occult law we are in a very literal sense letting in the light. I was in the smoking room of the sleeper last night, and I heard a man speaking about a factory which has just been built. He said "Now they have built buildings which have windows instead of walls." Instead of this old pepper box system—this dead house arrangement—in buildings devoted to large uses, you know as well as I do, we have great apartments lit with vast areas of glass, and so designed that those who occupy them get the benefit of the outside light and air. This brings us to the literal juxtaposition which is the outward symbol of brotherhood.

"Let in the light; and live openly" has already found an architectural expression, and I think it is bound to multiply out of all measure, and as brotherhood comes into the world and as spirituality triumphs we will have more and more houses of light.

We can do almost anything with glass nowadays. It is in process of development in regard to the various methods of holding it together and making it weather tight. I understand that before the war a peculiar kind of glass was invented which let in the light rays but kept

out the heat rays, so that the problem of the equalization of temperature can be dealt with even more effectively.

I conceive a city of the future—not a pepper box, but great buildings with great domes of glass. We will live on the roofs. People lived on the roofs before, and why should they not live on the roofs again? Some of the newer hotels are so built that people can eat their meals and enjoy themselves on the roofs, and they have gardens in the summer, and skating areas in the winter.

When I look over New York and see nothing but gravel and tin and chimneys and slag, it seems an utter absurdity and an utter waste that all that area, so near the sun and so far from the street, should not be utilized for living purposes.

By reason of our competitive civilization we have made canyons of our city streets. There is no inherent necessity for such a thing. There is no reason why our road ways and our sidewalks should not have the light as well as the roofs.

The evil can be obviated in several different ways. For instance, we could step back the facades of the buildings, make terraces and hanging gardens, and bring out wonderful effects in light and shade, or we could have streets of high buildings alternating with streets of low ones, and we could have occasional isolated sky scrapers where they would not shut out the air and light from their neighbors. In other words, our cities might be designed with some reference to the common good.

Individualism is so sacred with us now that a man has a right to make any kind of nuisance, so long as he confines it to his own front yard.

As I say, I conceive of cities of light. At the same time, the city itself is a great cancer or sore spot on the face of the world, and if it grows to too great proportions I doubt if it can be anything else. With the improved means of transportation now at our disposal, and so enormously increasing, there is no reason why almost every one should not live out in the free beautiful country, and the cities become merely places for meeting people to transact business, for taking our pleasure in in the way of theatres, etc., and then we scatter and get that beneficent benediction of the fields and the forests and the streams, and come back refreshed by the wonderful contrast of the two kinds of life. Of course only the rich can do this now, and they do it at a terrible cost.

Apart from our greater appreciation of sunlight, there is another way in which this spirituality is symbolizing itself, and that is in the marvellous development of artificial illumination. There is nothing that cannot now be done with artificial light short of making the ether

itself luminiferous; but we have gone no distance at all in trying to make interior illumination beautiful—it has always been in the hands of the illuminating engineer and advertiser instead of in the hands of the artist.

I believe there is in light a whole abstract art, more wonderful than music itself—that we can express emotional ideas, get reactions and consciousness, through mobile color more so than we do now through harmonious sounds.

If the question of our lighting once gets into the hands of the artist, if our highest effort is placed far beyond the beer and chewing gum sign and the automobile sign, we will have a most wonderful new element to juggle with, which the past has never had. We sigh and bemoan the fact that we have not the chances the architects of the past had. Why, we have more wonderful chances, if we will only take them. We have even enough material out of which to create new things. If the architects of the past had had artificial light as we know it, they would have done marvels with it.

With the cultivation of such an art, we will have to develop color sense; the eye will begin to be cultivated just as the ear is cultivated. It is the era of music that developed the ear. If we are constantly confronted with combinations of beautiful color, our eye will get more critical and more discriminating, and we will develop a sense which is full of light, and our architecture will become more colorful.

There is no doubt color will come into architecture again, and it will come because joy will come into our hearts, and color is always the sign manual of joy. The reason our cities are so dun and drab—the reason we dress in such a sombre and drab way is because our hearts are sad and oppressed and weighed down.

There is no reason why our cities should not be colorful. We decry the happy irresponsibility of the savage, and we sneer at the contentment of the Oriental with his lot, yet they are happy and contented, and therefore they work color into their lives. When the shadow of this war has passed away, and when we begin to organize life for life, instead of organizing life for death, we will be happy, and will express that happiness in color. So, I look for the architect of the future to be colorful.

Now that the war has made the immediate past suddenly more remote than slow centuries could have done, it is appalling to see how persistently we have organized death. Of course, the war has thrust that necessity upon us, but, behind that what thrust the necessity of the war upon us? Proximately Germany, we will say; but, it has been the war spirit in every nation—it has been the war spirit in every human heart, which may have found its apotheosis in materialistic Germany which started the conflagra-

tion. At the same time, we cannot absolve ourselves for the responsibility of this great cataclysm, because if Christendom had been truly Christian the war could not have happened and the world could not have been set on fire. It is because we have organized death.

Not long ago I was examining a bullet, and I was told by the man who made it "You note it has a lead centre, with a nickel casing. This casing is put on because if the bullet were made entirely of lead it would be so soft that it would mushroom on striking a bone. The hard nickel keeps it together, so that it will go through a man without killing him unless it strikes a vital spot." That seemed to me the whole symbol of our civilization. We have organized death and then by putting a nickel casing around the bullet we have tried to mitigate it so that humanity would not be destroyed.

There is in the world a great deal of excellence, and altruism, and good feeling, and true Christianity, and true kindness, which had to be organized, which has been organized in organized charity, and the Red Cross, and the Y.M.C.A. and so on; but after all that is only the nickel on the bullet.

I tell you, gentlemen, if we were to organize life instead of organizing death we would not know we were living in the same old world. I could go on and on and sketch according to my own notion some of the possibilities of the architecture of the future, but my time only permits mentioning one or two other features.

There is the matter of ornament. Ornament is deeply psychological. It is so psychological that if you have a detached fragment of the ornament of any great building of the past you can tell, even from that fragment, about what style it belongs to, and about what period it comes from, because it so expresses the psychology of the people who created it.

In the way of ornament we have nothing at all to show. Nothing reveals the aesthetic poverty of the end of the iron age so much as the fact that all our ornament is out of the past—from the dust bin of the ages. The egg and dart, and the bas relief, and the bead and reel, and the acanthus, and the cartouche, and the eagle, and all the junk we put on our buildings are all from the past. How much have we created? Nothing. We have nothing at all to start from—no evolution at all.

How will we meet the problem? I am trying to solve it for myself individually by going back to geometry, because all our ornament, even the most intricate arabesque, can be traced to geometry.

Ornament has always been a system of symbols—a picture book. The sculpture on the Greek temple was just a picture book of the Greek religion. The ornament on the cathed-

ral was a veritable Bible of the Christian faith. If we have a new religion, it will develop symbols of its own, and those symbols we will weave into patterns just as the symbols of Buddhism, Christianity and the Chinese religion are woven into their patterns, and the whole contents of Chinese, Japanese, and Hindoo art is simply a system of religious symbols.

So, the only solution to that question lies far in the future, and that, perhaps, is the way in which it may come.

Of course, I do not mean it will come soon. I doubt if we will even live to see the beginning of it, but we are getting more and more a sense of the effect of life, and undoubtedly this group of men, standing as they do as the curtain goes down on the great drama, have it in their hands and power to put in the footings of a new, true, vital constructive art.

That is the difficult way. It is not the easy way. The easy way is "Business as usual." I hate that phrase. If the war has not told us more than "Business as usual" the old world ought to perish. If we cannot take up our new tasks with a new spirit of service, with a new vision of things, I, for one feel we ought to be in the dust bin. Not "Business as usual" but the creation of a new art of democracy which will express the new spirit of the world freed from the iron bondage of materialism and facing the unimaginable splendors of the spiritual life.

DISCUSSION.

The enthusiastic applause which followed Mr. Bragdon's address gave abundant evidence of how thoroughly it was enjoyed by those in attendance. It represented, to say the least, an intensely interesting subject admirably presented, and led to one of the most spirited and enjoyable discussions which has characterized any of the R.A.I.C. meetings up to the present time.

Prof. Traquair: As Vice-President of the Arts Club, I would like to say how very pleased the Club is to have the architects making use of its rooms for their Annual Meeting. Very many architects belong to this club, and I need hardly say to you that it gives us the greatest pleasure to find that the club rooms can be made use of on an occasion like this to make your stay in Montreal more comfortable and to give you every facility we can.

I have listened with the very greatest pleasure to Mr. Bragdon's most interesting and able address. The question of the architecture of the future irresistibly calls to mind what Chesterton says about the fate of prophets: That in every age there were prophets, and when the prophets had finished prophesying they died, the people buried them as quietly as possible, and went away and did something else.

One has to be careful in prophesying, and unless you can prophesy all the things that are likely to happen it is very improbable you will strike the right one.

Mr. Bragdon said he is indiscreet, so I hope you will excuse me if I should be indiscreet because, to my mind, it is the only comfortable way to be.

In talking of architecture as an expression, I think a study of history shows us that architecture has always been an expression of the particular civilization and activity of its kind. For instance, the greatest achievements of the middle ages were religious, and the natural result of the very strong hold which religion had on the minds of the people was that they built religious buildings as the normal and the right thing to build. The civilization and culture were then the Church, and therefore the Church was the expression of the age. To-day we are proceeding along the same lines.

If the study of history is to do us any good, it is not as showing us what to copy, but as showing us how development takes place.

At the present time we find the main activities of life all over the world are undoubtedly commercial, and our great buildings are, therefore, commercial. Our distinguishing architecture at the present day is not our public buildings as mere archaeological remnants of Greece and Rome, clustered together according to more or less academic systems of planning, but that those buildings are worked out so that they look monumental and big. At the same time, they are inevitably dull.

I know of no more impressive sight in Toronto than the corner of Yonge and King streets, and it is impressive because of the great towers built there.

The architecture of to-day is real architecture. It may not be enduring architecture, and I do not know whether it is great architecture, because we are so close to it. Yet, I believe the Woolworth building is the modern representative of the ancient cathedral. It is built with conviction; so was the ancient cathedral.

In a way, some of those buildings have a wonderful symbolic quality. Looking at them from one point of view we may imagine them as tremendous beehives; the business man and his clerks flitting out of the innumerable buildings every night, and flitting back in the morning. They are gigantic beehives, and they look it. They are organic, real architecture, and those I have seen are tremendously impressive, with all the impressiveness that comes from a genuine problem genuinely solved. They are far more impressive than acres upon acres of Doric colonnades.

I think we are all coming to the conclusion that building in style is a thing of the past. The kind of motto that one takes in regard to ancient buildings and styles is that it is a good thing to know them, but not to use them.

Another very interesting problem which I think is likely to affect our architecture is the problem of the city as a unit and the problem of the small house. Concentrated attention is being given all over the world to-day to what is called housing schemes, and it is right that it should be so, because it is a most serious problem. Vast sums of money have been wasted, and are being wasted, on perfectly unnecessary pavement, simply to mention one instance. If one takes a plan of any block of the city of Montreal, we find streets too broad for the traffic that goes through them, but which form excellent speedways for the motor cars. We find the houses all facing on the street (at least any of them we can see), and they have an area left behind devoted to dead cats, bits of boards and garbage cans and all the rubbish of a back yard. More than that, we find the greatest amount of waste space where land is worth \$5.00 a foot. The more valuable the land the more people seem to delight in wasting as much of it as possible. Yet, in face of this, we call ourselves a businesslike people.

One may imagine a city with one-quarter the pavement and accommodating as many inhabitants if every bit of available land were made use of, and if people will not keep their back yards properly (and it is very hard to keep them properly as they are now planned), let those spaces be delivered over to the city gardener to keep.

I will engage to say that the amount of space we waste in the normal reasonably planned residential parts of the section (and I am not talking of the slums) would fully suffice for quite a large amount of pleasure ground and playground, and it would not be necessary to allow our children and the children of our poorer neighbors to have as their only playground the space between the wheels of the motor cars and under the feet of the passers-by.

The use of color, referred to by Mr. Bragdon, is another extremely interesting matter, and a very difficult one to deal with. It is hard to get color when we use it so little ourselves.

In moments of indiscretion I have often felt inclined to ask some of my clerical friends what is the color of sin. We know what the answer would be, and I know I would have him very badly about thirty seconds afterwards. What is the color of death? We all know. Yet we go about dressed in perpetual mourning.

Why do we wear clothes that are so badly made that we cannot get them washed? If we belong to a civilized people, why, in the name of commonsense, do we adopt a system of clothes that fall to pieces before we can get them cleaned? Still, that is very nearly what we do at present.

In our houses and our public buildings we do practically the same thing. Everything is arranged so as to give the utmost possible amount of discomfort, with the maximum amount of expense. I believe there is an enormous future for city planning, and this very question will be one of the most important and most difficult with which architects will have to deal.

We will not advance in the direction of enormous public buildings, and I doubt if we will advance very far in the direction of great religious buildings. Our public life is very much like that of ancient Rome, and our religious life very like that of medieval Europe. Our community life is something which still has to be developed, and one has only to turn to the building papers to see what an enormous amount of thought and attention is being devoted to that particular branch at the present time, and I think we may hope to see very great advances in that direction which will really produce a much higher degree of civilization—not merely the civilization of a few at the top, but a civilization which shall include everybody in our country and work in every way for a real and true democracy.

In closing, I would like to propose a very hearty vote of thanks to Mr. Bragdon for his address, which, speaking for myself personally, contains a great deal of material worthy of very careful consideration. We all know Mr. Bragdon as a thinker in such matters, and whose words bear the stamp of authority.

As I suggested to one of our members just now, the only pity is that on occasions such as this, the audience Mr. Bragdon gets is not the right one, because we all know the truth of what he says and we all agree with him. If we could only have an audience of those who do not agree with him, I am sure we would be doing even a greater work. I wish we could interest them, and I wish we could get a little more idealism and a little more creative thought into places where at present I am afraid nothing reigns but darkness.

Mr. Wickson: I have much pleasure, indeed, in seconding Prof. Traquair's vote of thanks to Mr. Bragdon, and in doing so I should like to say that rarely has it been my privilege to listen to such an able and well-considered address as the one we have just heard. I feel that it would be to our advantage as architects and as individuals if we had an opportunity of hearing a great deal more from Mr. Bragdon. He has presented a very interesting subject in a clear, concise and interesting way.

Mr. Bragdon: I thank you very much, gentlemen. I appreciate deeply your kind attention in listening to me and the vote of thanks you have tendered me. I feel my audience has been the right one. I feel that the architects themselves are the ones to carry this message to the larger community in which they dwell, and that is the way it will grow. Each of us will become the seed of a giant plant.

I began my address to you rather brusquely, and I did not have an opportunity of saying what a great pleasure it is to me to be among you, and how much I value the invitation you so kindly extended to me, and how much enjoyment I have derived from the brief visit I have paid you. May I also say that in my more recent visit to your country I have discerned a new spirit here of which I wish we had more. I think you are in process of learning a great many lessons which we in the States are only just beginning to learn, and while I would not have those lessons purchased at the awful sacrifices of life and suffering at which they have been purchased, I wish we might learn them, none the less.

I like the cultivation which I find here in this English-French

community, and which in the States is largely feminine. Far be it from me to disparage the feminine nature, but, at the same time, the fact is that our culture is in the hands of our women, and it is a little colored by the feminine temperament, and they very often let it slip through their beautiful fingers.

I like the sturdy quality of the English. I like the élat of the French. And I think perhaps I do you more justice than you are disposed to do yourselves.

Mr. Venne: As one of the older members of the profession in this province, I wish to thank Mr. Bragden for his most interesting address, in which I found a great deal of food for thought. The modern architect has modern problems to fix, and must meet and deal with them to the best of his ability as they arise. This seems to lead to what I might call a certain spirit of isolation, or individualism, and the result is that our architects to-day may not work as harmoniously as did the architects of the early or middle ages. Of course, our problems are not the same as theirs, and this very likely accounts for the difference.

The problem we have to deal with is the problem of commercial architecture. Professor Traquair spoke of the Woolworth Building. From my point of view, the Woolworth Building is an architectural work equal to any of the early or middle ages, in the sense that the Woolworth Building is the solution of many of the difficulties presented to the modern architect.

Then, we have our theatres, our big stores and our railway stations, all of which solve comparatively new problems. In many places the problem of the railway station has been solved in a marvelous manner, for instance, the stations in New York and in Washington.

I do not think we should look forward to the future with any misgivings, because the architect must always be prepared to do new things as the occasion may arise. His problem is always new, and he will always be faced with new conditions. If he solves these problems from the point of view of practicality and beauty, to my mind it does not make any difference if he inclines to the Renaissance or to the medieval.

Mr. Bragden spoke of ornamentation. I do not think it feasible to create ornamentation entirely out of new material, absolutely neglecting the past. I do not believe it can be done. We cannot totally ignore the past, and we must stick to the old traditions to a certain extent. Personally, I feel that if the architect will face the problem of the future with wisdom and strength, he has nothing to fear.

Mr. Bragden: I do not know whether I am expected to reply, but I would like to say a word or two. No one admires the Woolworth Building more than I do, but "one swallow does not make a summer."

As far as the railway station is concerned it is a modern problem, and it has had to be solved in a modern way. The Pennsylvania Terminal is just a monument to Mr. McKim, and it is only of the grandeur that was Rome. There is no suggestion from the outside, unless you get away from it, that it is a railway station at all; it might just as well be a library, or the Bank of England.

The New York Central Terminal is more French than the French. It is as false as it can be. They have put a floor right across those great arches, and have put mirrors where the glass is so that the fact that there is a floor there is absolutely camouflaged from the eye. At the same time, it is an anachronism to use any ornament in a railway station that is older than the railway itself. I built a railway station, and the hardest work I had was to get an ornament reminiscent of something that was not over one hundred years old. I do not know how I succeeded, but at least I made an effort not to commit the anachronism like giving Caesar a watch or filling up a railway station with all the plunder from the past.

Mr. Beaupré: The point of view of Mr. Bragden and the point of view of Mr. Venne, although apparently somewhat at variance, are really very close together except in exterior form. The only difference is in the envelope. As Mr. Venne says, the Woolworth building is a wonderful structure, and has solved many of the problems the architect had to meet. But, as Mr. Bragden very well puts it, "one swallow does not make a summer." So far as railway stations are concerned, it is quite true we have not anything just in line with the Pennsylvania Station, but from that I think we may draw the conclusion that the architect of the present is quite able to cope with the problem as it arises, and that, generally speaking, the result he attains will be satisfactory and acceptable.

Mr. Venne holds out somewhat for adherence to tradition; in this he is a little French. Mr. Bragden, on the other hand, holds for a secession from the old form, and in this he is an American.

Mr. Venne: In my younger days used to follow modern architecture, and especially American architecture with great interest, and my master, Albert Menard was in the habit of making awkward comparison between the Italian Renaissance architecture and the Chicago architecture of those days. Of course, at that time the architecture of Chicago was rather extravagant and over-proportioned, to say the least.

When Richardson came into the field, he was a traditionalist who introduced new ideas into his old South of France architecture.

The influence of McKim, Meade and White on architecture may be discussed from several points of view. The most important one, to my mind, is that when they began their career they put some kind of method, order and authority into the chaos which was represented by the Chicago Renaissance d'Italie architecture. I do not say that McKim, Meade and White have revolutionized architecture, but I believe they have crystallized it, and put something new into it. Modernism in architecture is not a thing that can be adopted suddenly. It is a growth, the same as anything else—a gradual development.

Mr. Bragden: With that sentiment I am heartily in agreement. Undoubtedly, we change by slow transition. What I was trying to give you a vision of was the architecture I had in mind, which will be reached by many rotations and permutations.

I know that every eminent architect, such as Richardson, and McKim, Meade and White, contributed their quota to raise the standard by which the rest of us have to work. No man could do as poor work after McKim, Meade and White came as he could before. They were immensely sensitive and conscientious, although, to my mind, they followed false gods. They had the spirit of beauty, and it is a joy to come across one of their buildings amid the ruck of an American city street.

There is no real point of divergence between me and any gentleman here, I think. I am a visionary; I look far beyond. I am going to the result in an aeroplane, whereas they are taking a limousine or a railway train, or perhaps they are walking—but we are all covering the same ground.

I am sorry I have to leave you now, because I must be in Rochester to-morrow morning. But, before I go, let me say

again that I thank you for your kindly reception and your courtesy, and if I have given anything I have received correspondingly.

Mr. Archibald: I enjoyed Mr. Bragden's address exceedingly, regretting at the same time that I could not appreciate it to its full extent from a business point of view.

It seems to me unless we have ideals in life we fall far short of the highest objects in life. If I might draw a comparison between what Mr. Bragden said to us this afternoon and what has appeared in the American magazines lately, I would say that Mr. Bragden spoke from a humanitarian point of view, whereas the American exchanges discuss the subject almost entirely from the materialistic point of view. The articles in the last few months have been almost absolutely confined to the question of how the architect shall run his office to benefit fully by the change that is going on, and that will go on, in the world as a result of the war.

I was also struck this morning by the discussion as to the increase of tariff on plans made in the United States for buildings to be erected in Canada, and I could not assimilate it with the views expressed by Mr. Bragden. I do not pretend to be artistic, and I do not pretend to be an architect in the fullest sense of the word (if I had been, I should probably not have been appointed to the Tramways Commission). Architecture is a very good thing to speak about, and to read about, but business pays the rent. At the same time, I am artistic enough to feel that architecture should not be bound by artificial boundaries. What are we going to gain in Canada by increasing the tariff on plans made in the United States for buildings to be erected here? Absolutely nothing. We are only tying our own hands; we are only showing our smallness of mind. There should be an absolute interchange of architecture and architectural ideas between Canada and the United States. We are bound together closer to-day than we were before the election of 1911, and in the future our business connection and our community of business will be closer than ever it was.

Instead of raising a higher barrier against American architects, wipe out your protection and put a clause in the tariff law that any man engaged in business in the United States who puts up a building in Canada will be obliged to engage an architect in the United States. If this were done, I think it would be a great benefit to us. If a building goes up that we can admire as architects, it is something for the rest of us to aim at, and if we cannot do as well ourselves, at least we have something to look up to.

Mr. Wickson: I have always felt that architecture is a good deal like language, in that it is a development, and that one cannot discard entirely what has always been in the past, and suddenly start off anew.

I am very glad Mr. Bragden spoke about light and about color. It is a great pity, I think, that we have so little color in our cities. When one looks at some monumental building, with its grand columns and its entablature, and its stoic cornice, one admires the proportions, but I sometimes try to picture to myself what that same building would be in white marble, with the decorations that the Greeks made use of when they built.

Really, one gets a feeling of grayness and coldness when one thinks for a moment of the difference between the two, and I think that all architects might devote a little more attention to this question of color. In a most trifling way, we tried it out on a residence not long ago. It was a plaster residence, and we had a green tile roof. Naturally, the woodwork was not pointed in strong color, but was a very subdued whitish gray. In the soffit of the cornice, which was very broad, we put in very dark rich blues, reds and greens, and it has always been a pleasure to me to get near it and feel that there was a little warmth in one thing we had done.

What Mr. Archibald said raises a very serious question from many points of view. I think the development of our country and the development of ourselves should be considered as well as the fraternal feeling between ourselves and our neighbors. To my mind, the United States has been wonderful in its architecture in modern years, and if I am not very much mistaken that development has come from the fact that the work in that country has been given to their own men. The opportunities that that great country afforded were saved for and given to the men in the country, and they have developed and made the country what it is, with the assistance of the Canadians who have gone over there to help them.

I suggest to you whether it is not a good thing to consider trying to conserve our abilities for our own country.

Mr. Hynes: As a working basis, might it be suggested to Mr. Archibald that we have real reciprocity in the matter, and that when an American architect comes here to erect a building a Canadian architect should go over there and do the same thing?

Mr. Maxwell: This question of color is a very interesting one. My personal view is that we use altogether too much color. I have been to Syria and Egypt, and over there the greens of the gardens, etc., supply the color. Most of the buildings are white plaster, but they have color on the roofs and in the painting of the woodwork. In the use of tiles, etc., they get their color accents. In other words, they have a big foil which brings out the value of the color used to accentuate certain features of construction of the building.

In this part of the world there is nothing more damnable than to go through our modern towns and see the miles and miles of the most abominable red conceivable. If we are going to use color as accents on buildings which are neutral or on which white material is employed, we have plenty of opportunity, without overdoing it, and I am certain that it can be so worked in that the result will be pleasing to the eye.

In the city of Montreal we have our gray limestone, which is terribly neutral. The color of our streets is the same. We have every opportunity to work in a little color, if we wish. In regard to our miles of red brick, they might be toned down with some of the green trimmings. At the same time, you cannot get the value of the color unless you have a foil, and that foil is certainly in our hands in the brick.

Mr. Vallance: Personally, I do not agree with Mr. Wickson in reference to color. My feeling is that we have enough color as it is. I have been accused of being a little "daffy" on the question of gray, but a number of years ago Montreal was probably the most dignified town on the continent. And why? Because of the uniformity. It was all gray stone. It might be a little dull at times, but it was a great deal better than the yellow brick and the red brick, and the gray brick, and all sorts of brick which Mr. Wickson now wants us to introduce.

Can you imagine anything worse than white marble between two red brick buildings? I think the scheme we had thirty years ago, in which we had the gray buildings and the green trees, was far better. The green supplied practically all the

color needed, but the architect could put in a little more if he wished. The endeavor to introduce color has given us brown stone, red stone, green stone, red brick, yellow brick, and so on, which is all color, but it is not regulated or artistic color.

Mr. Wickson: I quite agree with the remarks about red brick and the yellow brick, but that is not what I meant when I spoke of color. I meant color introduced as it should be. I know it is disheartening to go around a modern city and see the colors used, and I think perhaps Toronto sins in that as much as any other city, with its great repetitions of red pressed brick, etc. That was not what I had in mind at all. The one instance I gave of the injection of some color was in a building that was all gray, except where a little color was introduced, with considerable propriety, as I thought.

I quite realize that what Mr. Vallance says about the dignity of Montreal is not without its point, but I think there are some places where color can be introduced, and, as Mr. Maxwell says, if it is properly introduced it is beautiful. Of course, that does not refer to the rows of red brick houses.

Mr. Beaugrand Champagne: The gray color upon which Mr. Vallance seems to base so much of the dignity which was apparent thirty years ago in Montreal is not so much the result of study as the use of a material which we had to use. We had gray stone, and we were obliged to use it. When we had red brick, it was the only brick we could get, and we had to use it. The result was that sometimes we had miles of red brick houses, or miles of rows of gray stone houses.

Mr. Maxwell alluded to Egypt, and said that their houses were white and the roofs were green, but there is no question about the insides of those houses not being colored.

To my mind color in architecture, when it is the result of a study, ought to be encouraged; but when it is only the result of the use of material which we cannot do otherwise than use, it may not be just as interesting as if it were the result of study, but it is still interesting.

During six months of the year we have a climate something like that of Turkey, and during the other six months our climate resembles Russia. Why should we not follow the example of those countries? In other words, why should we say we cannot use colors because of our winters and our summers? In those two countries it seems the proper thing to use color, and there is no reason that I know of why we should not do the same.

Mr. Maxwell: Our friends from Ontario probably do not realize that there is as much color used in our French-Canadian villages in the Province of Quebec as you will find in any other country. The reason the Province of Quebec is so painful is because of that interesting, and in some cases semi-barbaric, idea of color which the natives of the villages apply to their buildings. It would be interesting for a good many of our architects to nose

around the Province of Quebec and make a few observations in the way of color.

Mr. Wheeler: To my mind, Mr. Beaugrand Champagne has struck the absolute note in architectural color. It is entirely a question of material. If our material is gray, we must use gray and make the best of it. If it is red, we must do the best we can with red. The trouble with most of our brick manufacturers is that they have no half-tones. We have to take a horrible red, which we would not think of using if we could possibly help it.

It takes an artist born to use color. I do not think the ordinary architect is trained to color in the same way as is the artist who reproduces a picture. We do not know the combinations of color to use together, and if we did we could not get them.

I have thought a great deal of this matter of architectural expression, and I do not see where or how we can invent new form until we invent a new material for the construction of our buildings. All those forms are the logical expression of the material, and until we absolutely depart from a certain material we cannot invent new forms, because if we do we will simply get into a mess.

The very best forms we have are those which were used by the Romans or the Greeks. We have only two forms that I can see: one is the post and lintel, and the other the post and arch construction. If anyone can invent a new form of construction, by gradual degrees we will develop a new form of design to go with it, but until that occurs I cannot see that we can do better than go back to the old forms for expressing our aesthetic ideas.

POST WAR HOUSING.

Owing to the lack of space in this issue, the very interesting address of Mr. Thomas Adams, Town-Planning Advisor to the Commission of Conservation, Ottawa, which was given at the evening session, will be published in the next issue of "Construction." Mr. Adams spoke to an audience in full sympathy with the subject, which outlined the housing schemes of England and the United States and proposed war work in Canada, and which formed the basis of discussion up to the conclusion of the meeting.

R.A.I.C. OFFICERS FOR 1919.

President, A. Frank Wickson, Toronto; Vice-Presidents, David R. Brown, Montreal, and W. R. Van Egmond, Regina; Honorary Secretary, Alcide Chausse, Montreal; Honorary Treasurer, J. P. Hynes, Toronto. Council—R. P. Blackey and W. D. Cromarty, for Alberta; C. H. Acton Bond, C. P. Meredith and A. E. Nicholson, for Ontario; J. P. Oullett, Jos. Perrault and Herbert Raine, for Quebec; R. G. Bunyard, A. G. Creighton and W. R. Reilly, for Saskatchewan; and S. M. Eveleigh and Kennerly Bryan, for British Columbia.

Annual Meeting P. Q. A. A.

The annual meeting of the Province of Quebec Association of Architects on January 18th, was largely attended and resulted in the consideration of a number of important matters.

The report of the Council stated that a special committee had been appointed at the suggestion of the chief engineer of the City Council in reference to the proposed revised building by-laws, with the object of having them put in force, but that nothing had been accomplished owing to the reorganization and changes which were taking place in the municipal government. Further efforts in this direction were to be made with a view to having the new regulations adopted as early as possible. During the year six new members were admitted to the Association bringing the membership to a total of 170. It was further reported that the War Graves Committee of the Association had been in communication with the Government with the object of appointing an architect and landscape gardener to the Canadian Graves Commission.

A letter was also read to the meeting from the Royal Canadian Academy on the subject of war memorial, in which approbation was expressed at the movement directed toward the erection of suitable monuments to Canadian soldiers and to mark the graves of those who had made the supreme sacrifice. The Academy, however, viewed with alarm the unguided enthusiasm directing the laudable efforts which

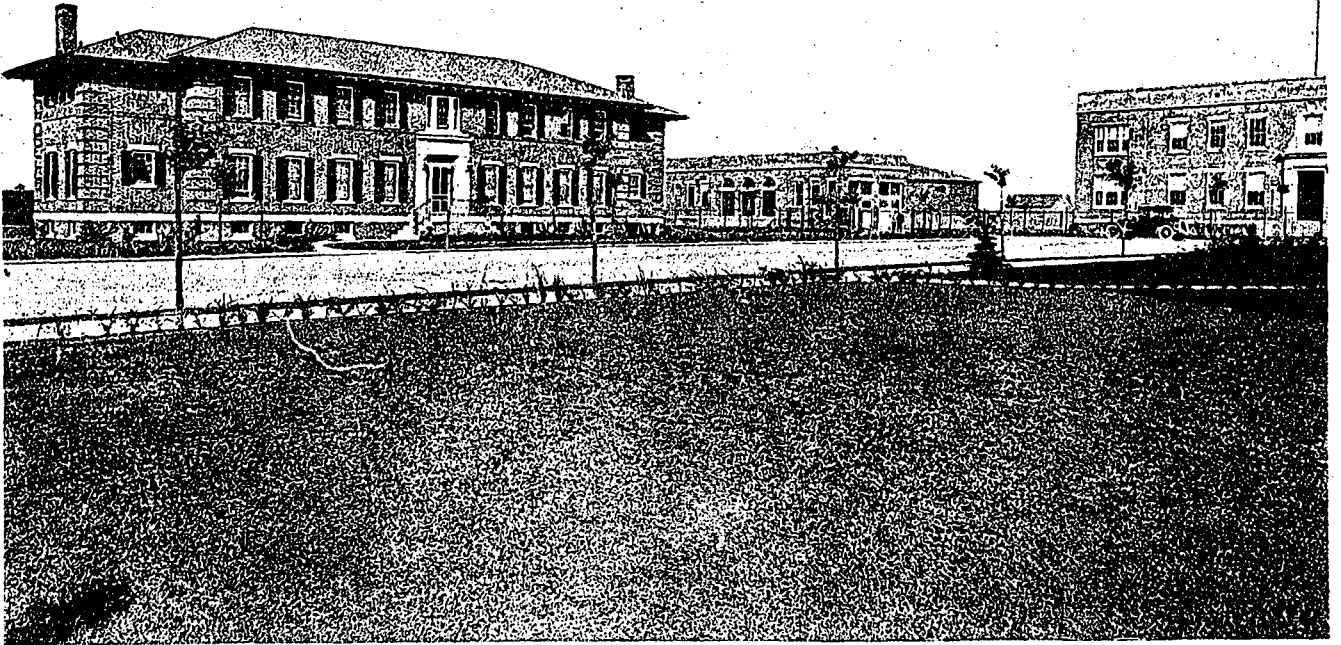
were being put forth, and urged the necessity of entrusting these commissions to the most eminent sculptors and architects in Canada, so that credit and honor in the highest degree might result to those associated in the movement.

Certain amendments to the charter were proposed in a special report dealing with the regulating of students' hours, and recommending the holding of two general meetings yearly, together with the payment of a two and a half per cent. commission to young architects bring work into the offices.

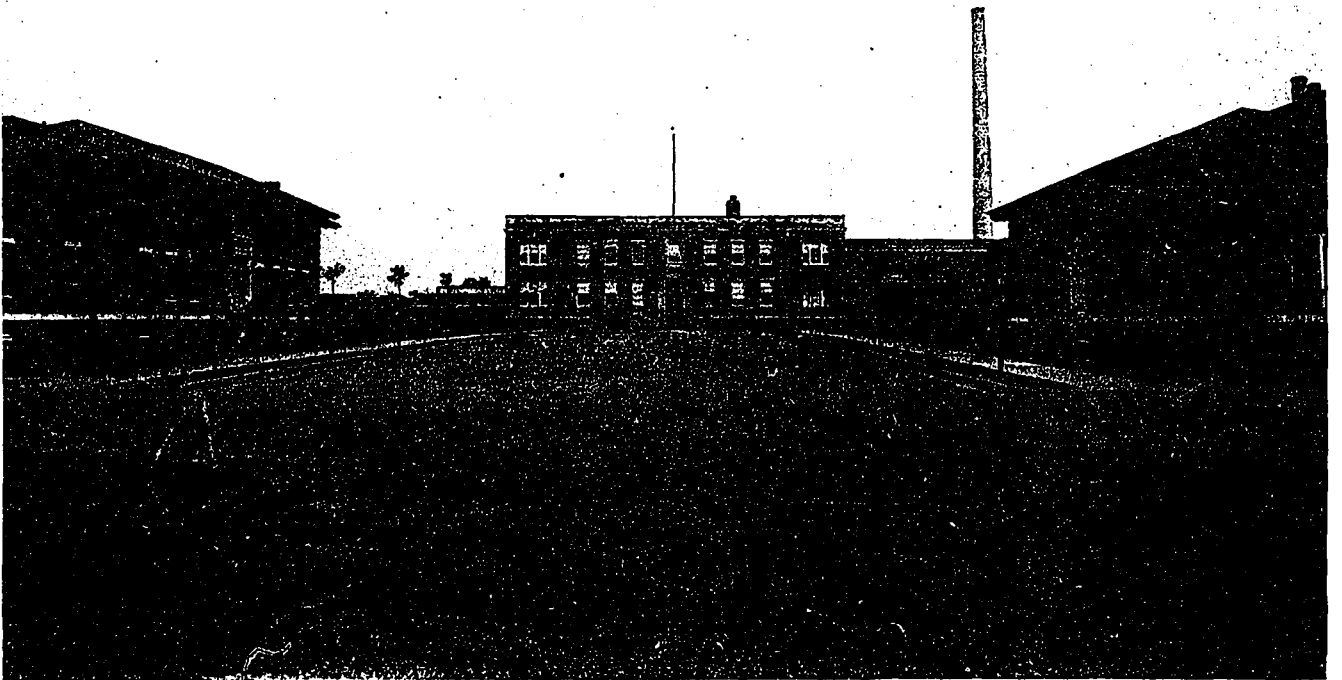
A proposal was also made to move the association rooms to a more central location with quarters on the ground floor, but failed to get the support of the meeting.

The annual election of officers resulted as follows: President, Mr. J. H. Lebon; 1st vice-president, Mr. D. Norman MacVicar, and vice-president, Mr. E. Payette; secretary, Mr. J. Emile Vanier; treasurer, Mr. J. M. Miller; members of the Council, Messrs. Beaugrand-Champagne, Jules Poivert, J. Asselin, L. A. Auger, and Prof. Traquair; delegates to the Royal Architectural Institute of Canada, Messrs. A. Chausse, Jos. Perrault, D. R. Brown, J. P. Oullett, and Prof. Traquair.

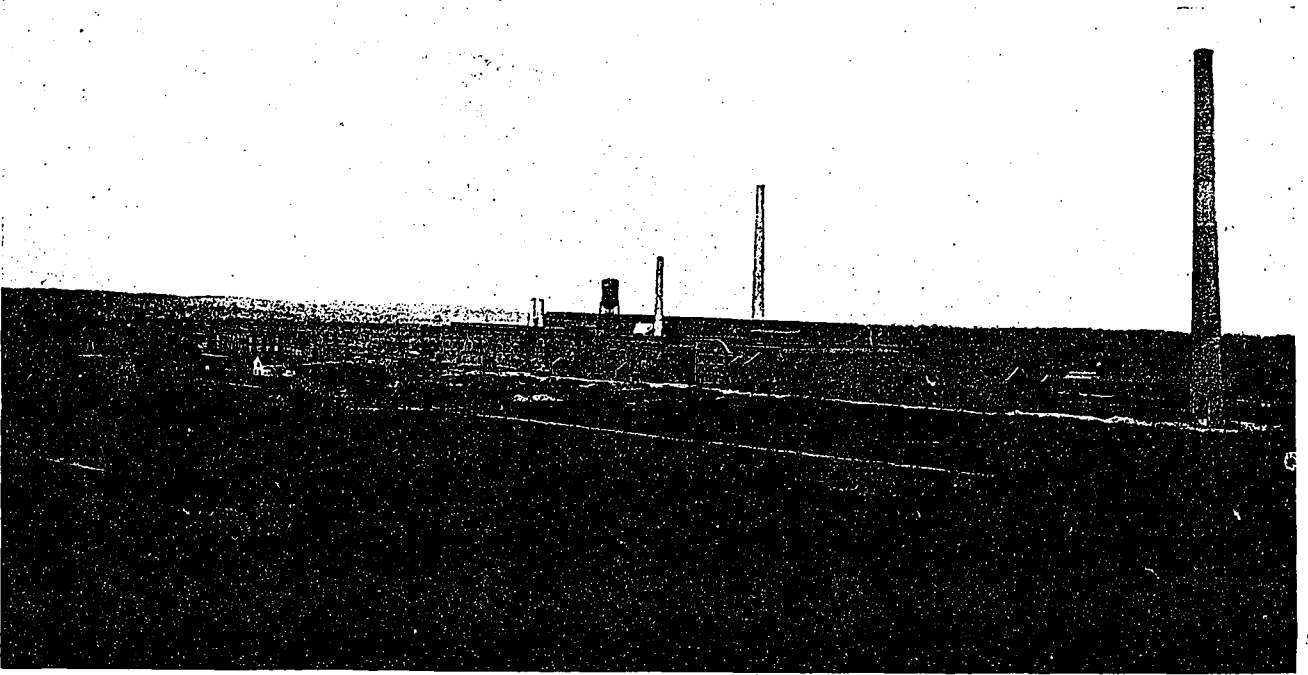
A hearty vote of thanks was given to Mr. G. A. Monette, the retiring president, for the highly efficient manner in which he conducted the affairs of the Association during the past year.



LEFT TO RIGHT: MECHANICS' BOARDING HOUSE, HOSPITAL AND GENERAL OFFICE.



VIEW SHOWING MECHANICS' BOARDING HOUSE, GENERAL OFFICE, SUPERINTENDENTS' CLUB HOUSE AND PLANT IN THE BACKGROUND.
INTERNATIONAL NICKEL COMPANY'S PLANT, PORT COLBORNE, ONT.



INTERNATIONAL NICKEL COMPANY'S PLANT FROM SOUTHWEST VIEWPOINT.

Port Colborne Nickel Refinery

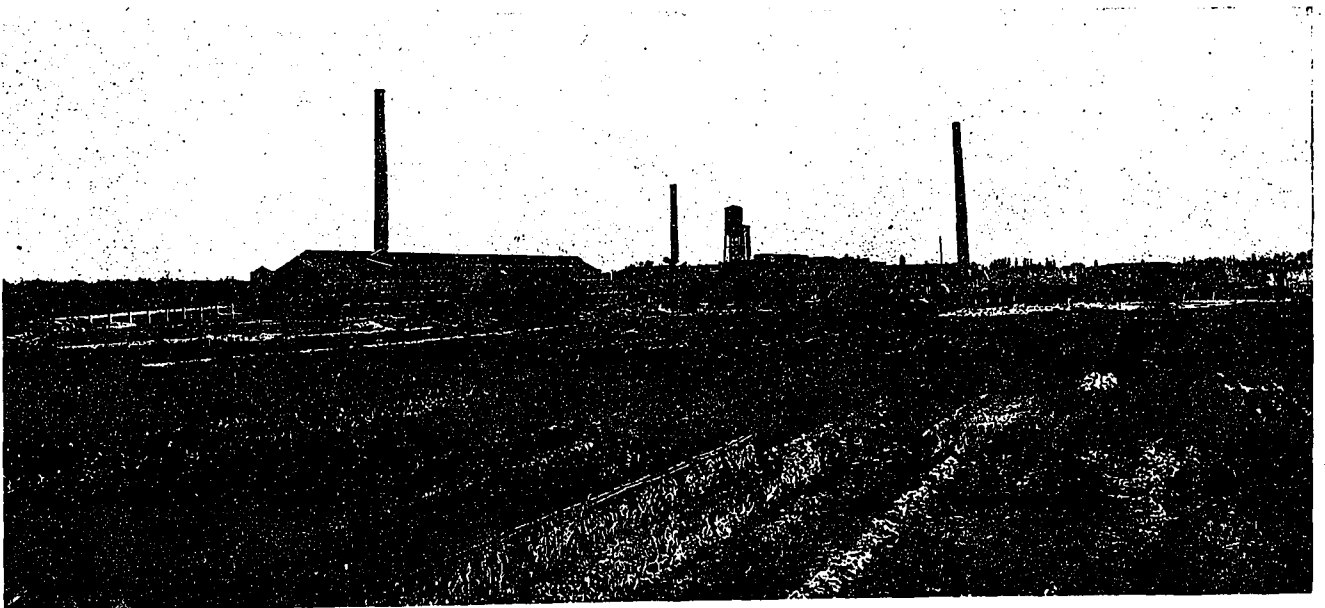
Canada owns the most important nickel mines in the world, but up to a little over a year ago no nickel was refined in this country. Consequently the establishing of the International Nickel Company's plant at Port Colborne, Ont., represents an important industry for the complete development of one of our chief natural resources.

In other words the new refinery involves an economic advantage resulting in the conversion of the raw material into the finished product in Canada where the nickel is produced, besides giving employment to a considerable number of workmen. At the present time a staff of 700

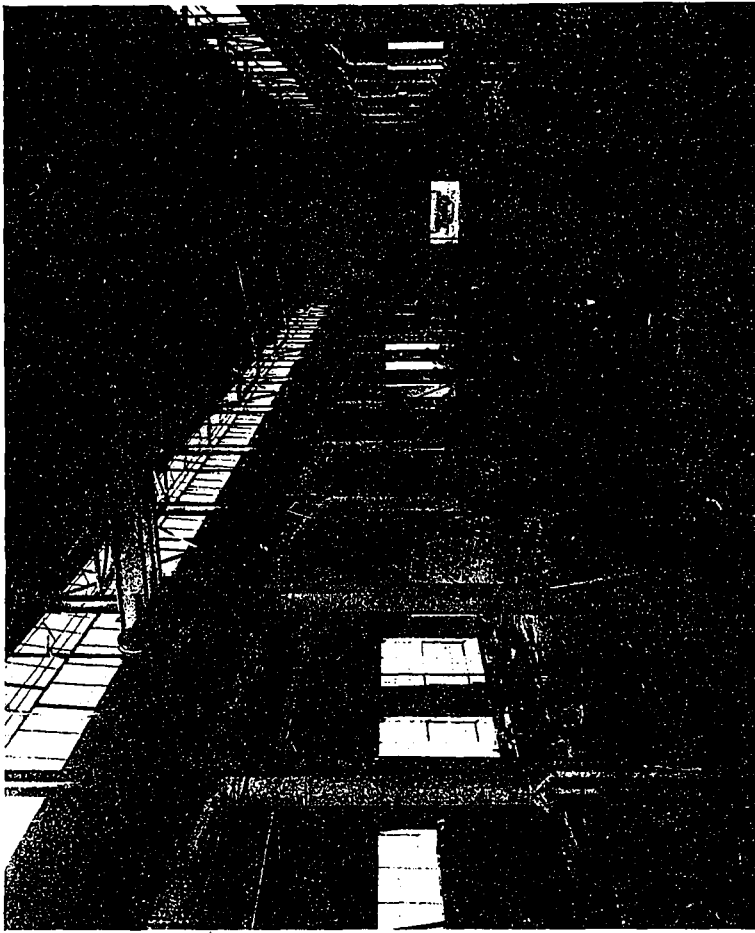
are employed, and about 30,000 lbs. of nickel and considerable copper are turned out daily.

Only a portion of the product of the smelters at Copper Cliff is shipped to Port Colborne for treatment, but eventually the plant will handle the total output from that district instead of any of it being sent to the United States for refining as has been the case up to now. This seems evident from the magnitude of the plant which is so planned as to permit the doubling of the refining capacity in every department.

In addition to the industrial part of the plant which covers twenty-six acres, a number of executive and staff buildings have been provided. These comprise the administration



VIEW OF PLANT FROM NORTHEAST POSITION.

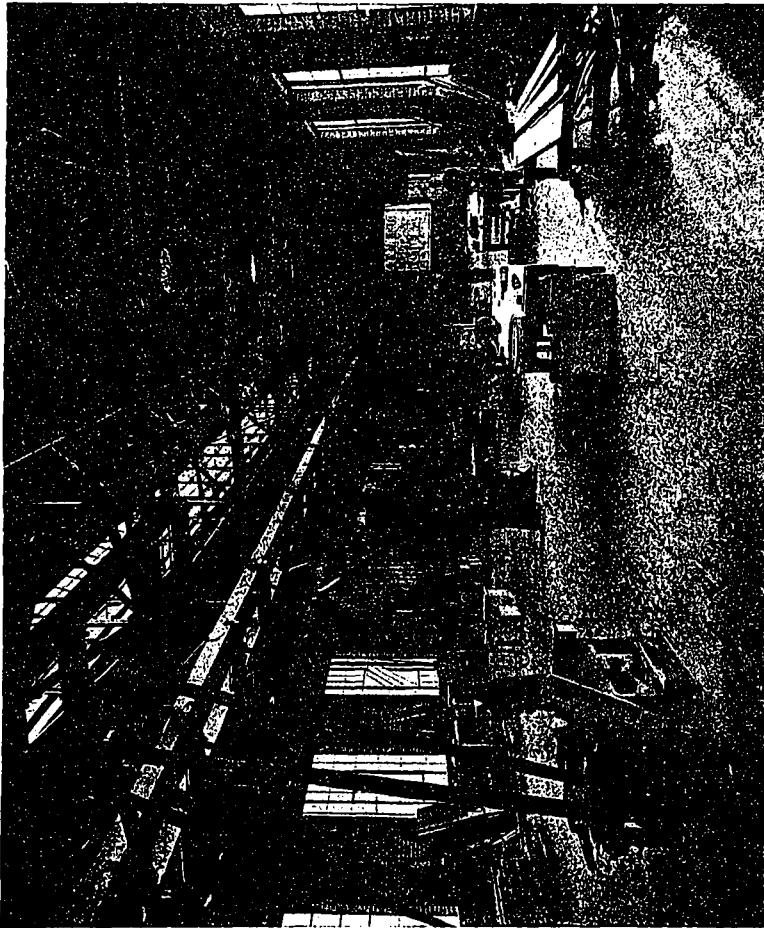


BLACKSMITH AND MACHINE SHOP.

INTERNATIONAL NICKEL COMPANY'S PLANT.

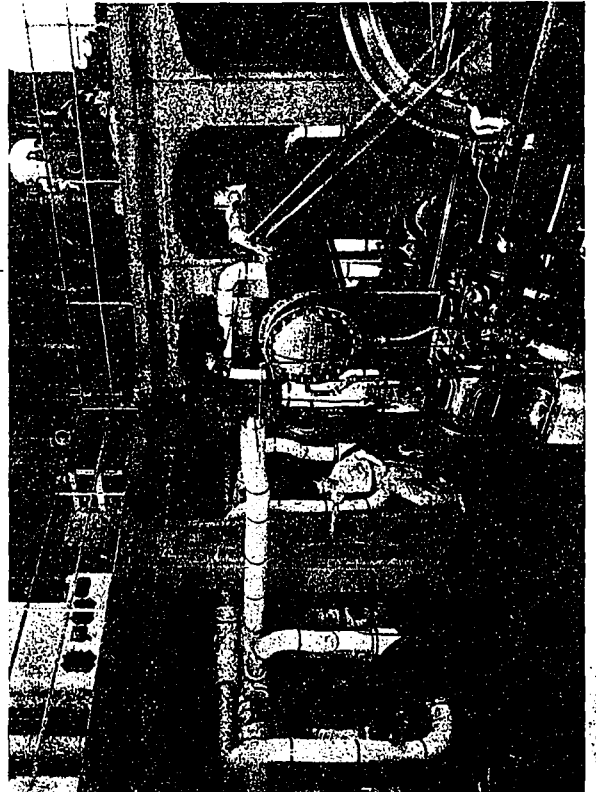
Port Colborne, Ont.

POWER HOUSE OF DUST PRECIPITATION PLANT.



CARPENTER AND COOPERAGE SHOP.

HIGH SPEED TURBO-BLOWERS IN MAIN POWER HOUSE.





CHEMICAL OR ASSAY LABORATORY. INTERNATIONAL NICKEL COMPANY'S PLANT, PORT COLBORNE, ONT.

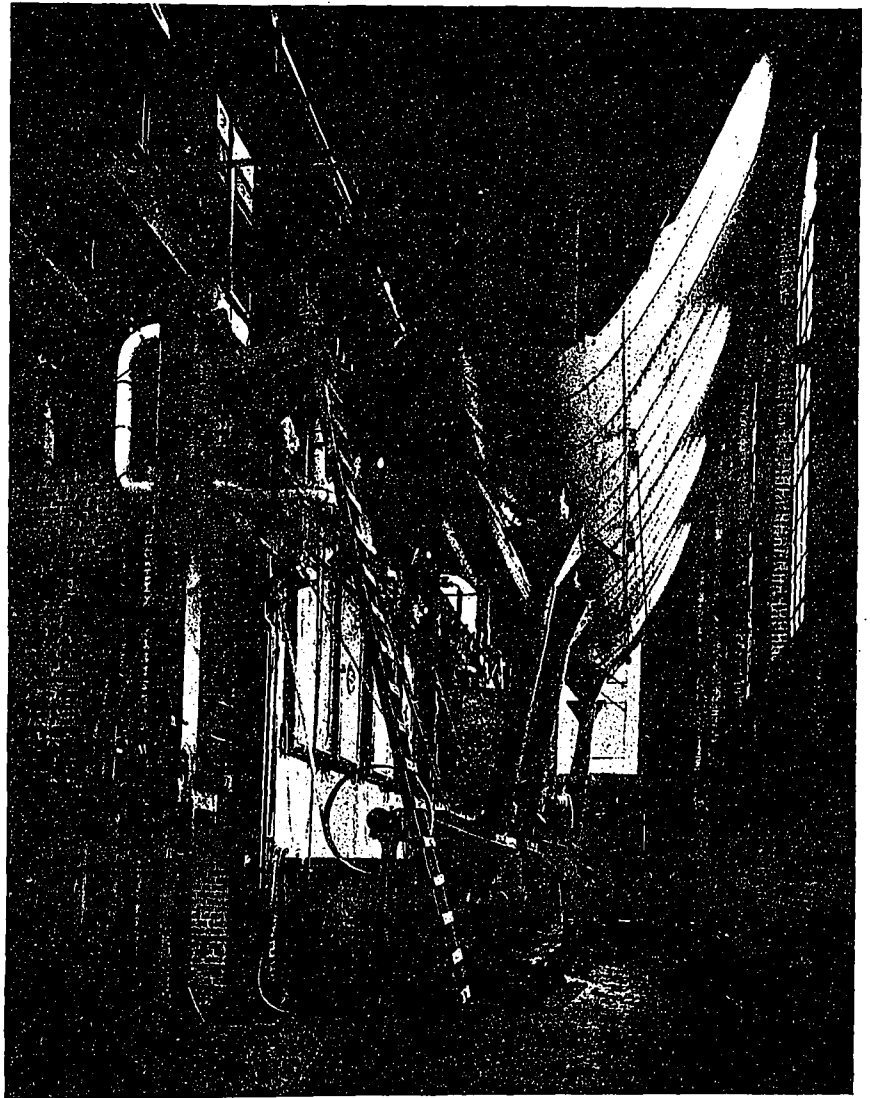
TYPICAL CHANGE HOUSE.

building, hospital, foremen's boarding house and staff club house. The buildings are set back on well-kept lawns on both sides and at the end of a wide street, and are of very creditable design. The company has also provided eight houses of a most desirable type for the accommodation of the executive heads and their families.

The plant itself is of brick, steel and concrete construction, a feature being the large concrete stacks which reach to a lofty height. The various departments are spacious and well ventilated, and the lighting installation throughout is an excellent example of the adapting of artificial light to the requirement of the particular operation carried on within and the consideration of the individual purpose of each building. In the various departments a system of reflectors are used to throw the light where needed, and in several of the shops angle reflectors are placed on the wall so as to be out of the way of shop operation.

Twenty new factories have located in Louisville, Kentucky, during the past two years, due to the activity of the Louisville Foundation, or what is sometimes known as the Million Dollar Factory Fund of that city. The new factories employ altogether three thousand operatives and have an annual pay roll of \$2,000,000. Twelve factories were reported

for 1917 and eight industries for the year just closed. The factories, it is stated, were acquired by the Foundation at a net expense of fifteen thousand dollars. It is claimed that for every dollar expended the city acquired business transactions bringing in thirteen dollars annually.



BOILER ROOM, SHOWING MECHANICAL STOKERS.

CONSTRUCTION

ESTIMATED COST OF BUILDING WORK IN THE YEARS 1910-1918, AS INDICATED BY BUILDING PERMITS ISSUED IN THIRTY-FIVE CITIES. Compiled by Department of Labor, Ottawa.)

CITY	1910	1911	1912	1913	1914	1915	1916	1917	1918	1918 compared with 1917		Per cent
										Amount	Increase (+) Decrease (-)	
1—Nova Scotia.....	831,594	1,004,958	1,209,781	1,156,954	990,292	1,262,087	1,348,434	1,320,647	3,295,635	+	1,974,988	+ 149.55
2—Halifax.....	484,040	509,316	565,020	837,766	876,320	1,063,985	1,220,329	904,377	2,860,852	+	1,962,475	+ 217.00
3—Sydney.....	347,554	495,642	654,761	321,198	310,973	198,102	128,105	416,270	428,783	+	12,513	+ 3.01
4—New Brunswick.....	469,215	645,556	699,795	2,982,789	851,655	864,339	675,910	870,963	498,748	-	372,215	- 42.74
5—Moncton.....	84,915	82,856	121,845	470,780	337,366	618,064	211,630	338,713	147,425	-	192,288	- 66.60
6—St. John.....	384,300	562,600	567,950	2,412,000	816,300	346,275	404,350	531,250	351,323	-	179,927	- 33.86
7—Quebec.....	20,003,902	25,705,190	26,672,297	34,893,449	24,527,691	12,267,849	9,892,630	8,794,149	6,852,354	-	1,941,795	- 22.08
8—Montreal-Maison-rouge.....	16,742,019	22,516,832	22,433,398	29,723,452	3,022,640	8,283,021	5,527,544	5,501,918	4,882,873	-	619,045	- 11.25
9—Quebec.....	626,498	795,254	933,002	1,939,781	2,759,573	2,576,342	2,012,157	2,459,388	1,555,011	-	904,375	- 63.22
10—Sherbrooke.....	558,000	920,001	1,103,004	747,450	101,222	354,870	388,830	251,000	150,920	-	103,080	- 40.82
11—Three Rivers.....	218,400	133,008	372,800	482,450	682,180	484,203	537,345	428,860	953,975	+	213,115	+ 50.73
12—Westmount.....	1,961,985	1,340,002	1,833,093	2,000,310	698,103	389,403	544,754	154,985	273,211	+	120,226	+ 77.07
13—Ottawa.....	33,603,186	39,669,026	50,022,468	49,474,905	62,588,439	14,553,628	20,229,574	17,407,571	18,477,012	+	1,069,441	+ 6.14
14—Brantford.....	681,030	613,860	1,167,105	1,015,986	435,510	225,606	282,677	287,166	761,500	+	474,305	+ 163.15
15—Fort William.....	2,401,525	2,838,785	4,210,285	4,009,585	1,830,866	638,930	400,525	695,445	535,816	+	122,890	+ 18.68
16—Guelph.....	143,700	357,335	395,695	621,734	821,734	219,672	155,222	111,435	28,391	-	83,044	- 25.48
17—Hamilton.....	2,803,605	4,255,730	6,491,800	6,110,000	3,703,865	1,522,348	2,746,476	2,742,254	2,472,254	-	274,221	- 9.99
18—Kingston.....	220,092	311,699	642,915	686,474	288,577	244,088	184,321	150,705	317,943	+	168,228	+ 111.63
19—Kitchener.....	359,807	372,048	553,623	690,721	728,320	334,404	298,572	208,352	275,092	+	30,710	+ 10.08
20—London.....	805,123	1,036,890	1,137,108	1,789,920	1,837,735	1,207,630	926,126	837,890	39,770	+	39,770	+ 4.75
21—Ottawa.....	3,022,090	2,997,610	3,621,850	3,991,290	4,397,890	1,605,160	1,530,400	1,041,017	2,865,610	+	1,594,595	+ 153.16
22—Peterborough.....	517,553	346,372	665,893	488,240	452,335	97,010	128,000	965,503	211,261	+	712,242	+ 74.70
23—Port Arthur.....	1,006,116	595,160	2,492,554	1,935,575	1,234,085	83,625	1,565,095	734,647	610,597	+	359,250	+ 54.61
24—Stratford.....	187,094	99,003	305,831	316,407	40,715	209,800	100,619	449,036	89,786	+	359,250	+ 80.00
25—St. Catharines.....	263,000	265,435	810,435	799,468	782,253	445,981	595,715	79,875	465,727	+	385,852	+ 483.07
26—St. Thomas.....	202,000	202,420	67,150	186,146	388,915	134,215	145,865	216,338	63,395	+	102,943	+ 75.22
27—Toronto.....	20,740,498	24,373,949	27,401,781	27,038,913	20,694,288	6,851,880	9,881,671	7,163,858	8,535,331	+	1,371,473	+ 19.15
28—Windsor.....	391,990	740,595	1,098,563	1,148,975	1,121,413	722,870	1,508,330	1,161,375	570,305	-	591,070	- 50.89
29—Manitoba.....	16,034,738	19,238,082	21,760,957	19,231,259	13,240,305	1,862,455	2,752,193	2,392,788	2,140,672	-	282,116	- 10.54
30—Brandon.....	929,288	1,024,532	1,165,207	609,609	395,335	36,155	244,873	190,338	90,022	-	90,316	- 50.08
31—Winnipeg.....	15,105,450	18,233,550	20,595,750	18,621,650	12,845,500	1,826,300	2,507,300	2,212,450	2,050,650	-	161,800	- 7.31
32—Saskatchewan.....	6,240,649	12,521,629	20,947,140	13,007,643	2,783,235	574,987	687,170	1,294,659	2,177,299	+	882,631	+ 68.17
33—Moose Jaw.....	1,071,500	2,431,788	5,275,797	4,535,470	659,860	90,722	318,945	295,460	566,575	+	271,115	+ 91.76
34—Regina.....	2,351,288	5,137,615	8,046,238	4,018,350	1,761,875	464,065	222,075	416,480	1,005,000	+	589,540	+ 141.56
35—Saskatoon.....	2,817,771	4,952,276	7,828,125	4,453,840	561,500	20,200	146,150	582,739	604,715	+	21,976	+ 3.77
36—Alberta.....	7,750,850	16,712,432	34,840,639	17,862,106	8,938,637	440,375	895,040	858,000	1,548,270	+	690,270	+ 80.45
37—Calgary.....	5,860,504	12,007,638	20,203,820	8,619,653	3,423,350	150,550	663,500	548,200	1,196,800	+	648,600	+ 118.31
38—Edmonton.....	2,161,256	3,804,794	14,446,810	0,242,460	5,813,277	309,895	231,540	309,800	351,470	+	41,670	+ 13.45
39—British Columbia.....	15,423,410	22,653,517	29,990,352	15,151,727	6,889,765	1,920,629	3,245,465	997,649	1,946,289	+	359,640	+ 85.26
40—New Westminster.....	1,126,355	1,638,460	1,638,460	998,078	261,620	85,307	85,307	81,515	108,300	+	26,785	+ 32.86
41—Vancouver.....	13,164,395	17,501,512	19,374,522	10,423,197	4,464,476	1,508,893	2,080,269	1,709,255	1,450,229	+	881,974	+ 88.77
42—Victoria.....	2,273,045	4,025,650	8,077,370	3,769,556	2,143,060	242,450	170,205	147,879	280,760	+	141,881	+ 95.94
Total—35 cities.....	\$100,357,546	\$138,170,399	\$185,233,449	\$153,662,843	\$96,780,981	\$33,566,749	\$39,724,466	\$33,936,426	\$36,838,270	+	\$2,901,844	+ 8.56

†No record is available for New Westminster before 1911.

Building Trades, 1910-1918

Figures compiled by the Department of Labour, Ottawa, show that during the year 1918 there was a slight increase in the volume of employment in the building trades compared with 1917 as indicated by the value of building permits issued in the 35 cities with populations of 15,000 or over. The estimated cost of the building work in these cities in 1918 was \$36,838,270 as compared with \$33,936,426 in 1917, an increase of \$2,901,844, or 8.56 per cent. In the comparative table which accompanies the report and which groups the cities by provinces, increases are shown in all the eight provinces included except New Brunswick, Quebec and Manitoba. The greatest increase, 149 per cent., was shown in Nova Scotia, and substantial increases were also reported in Alberta and British Columbia. Of the larger cities, Halifax, Ottawa and Calgary showed marked increases, Toronto, Vancouver and Victoria also reported increases, and Montreal and Winnipeg reported slight decreases. Of the smaller centres, Brantford, Kingston, St. Catharines, Regina, and Moose Jaw recorded gains as compared with the previous year.

The figures show that the pre-war level of employment in the building trades has been better maintained in Nova Scotia than in any other province. In the years 1915, 1916, 1917 and 1918 the total for the two Nova Scotia cities was higher than in any of the other five years of the record. In New Brunswick, however, the total for 1918 was less than it has been for any year since 1910. In the province of Quebec there has been a steady decline from the high level of 1913. The yearly percentages of decrease for 1914, 1915, 1916, 1917 and 1918 are approximately 28, 50, 20, 10 and 22 per cent.

The total for the 14 Ontario cities fell from \$50,000,000 in the record years of 1912 and 1913 to \$18,000,000 in 1918. The lowest level was reached in 1915 when there was a falling off of over 60 per cent. from 1914. In 1916 there was an increase of 41 per cent. over 1915, but in 1917 there was a decrease of 14 per cent. over 1916 and in 1918 an increase of only 6 per cent. over 1917. The figures for 1918 show a decrease of 63 per cent. from the record year of 1912 and an increase of 29 per cent. over 1915 when the volume of building permits reached the lowest figure since 1910. In the four western provinces the highest figure was reached in 1912 and the lowest figure in Manitoba, Saskatchewan, and Alberta in 1915, while in British Columbia the lowest figure was reported in 1917. In Manitoba the amount for 1918 shows a decrease of 113 per cent. over 1912 (the record year) and an increase of 15 per cent. over 1915 (the year building permits reached lowest amount.) In

Saskatchewan the corresponding decrease and increase amount to 89 per cent. and 279 per cent. In Alberta the decrease is 95 per cent. and the increase over the minimum amount since 1910 is 236 per cent. In British Columbia the decrease from the maximum figure in 1912 is 94 per cent. and the increase over the minimum of 1917 is 85 per cent.

The statistics quoted above are for 35 Canadian cities only and do not include a number of smaller industrial centres such as Welland, Niagara Falls, Woodstock, Chatham, Galt, Owen Sound, Belleville, Brockville, Pembroke, and other growing manufacturing towns. It is safe to estimate that the building operations in the smaller cities and towns not enumerated and in the villages and farming districts, would equal as much, if not more, than the total shown for the 35 urban centres.

Building Prospect 1919

One of the most promising features of the building outlook is the volume of public improvements to be carried out during the present year. Within the past month a very comprehensive program has been announced by the Ontario Government involving an expenditure of \$25,000,000 of which \$20,000,000 will be devoted to building work alone.

Projects definitely decided upon include new buildings and repairs to the existing Provincial buildings at Toronto cost \$658,500, and similar undertakings elsewhere in the Province as follows: Brockville, \$76,800; Hamilton, \$70,620; Kingston, \$110,000; London, \$104,500; Mimico, \$89,600; Whitby, \$482,800; Woodstock, \$128,500; Ottawa, \$38,550; Normal Schools, London, Hamilton, North Bay, Peterboro and Stratford, \$20,200; Belleville, \$50,500; Brantford, \$71,500; Guelph, \$12,100, other expenditures under this classification, \$139,460.

New construction and repairs in Northern Ontario districts it is estimated will reach approximately \$204,670.

These improvements it is figured will furnish employment for 40,000 men during the summer months, and refer to Ontario alone. They do not take into account the programme of improvements to be carried out by the Dominion Government, which will substantially contribute to further take up the present labor slack due to demobilization.

Besides the \$25,000,000 which has been made available for improving the housing conditions, it is the intention of the Federal authorities to proceed with other work of direct benefit to the building trades, including alteration and repairs on an extensive scale to existing government

(Concluded on page 63.)

CONSTRUCTION

A JOURNAL FOR THE ARCHITECTURAL
ENGINEERING AND CONTRACTING
INTERESTS OF CANADA



H. GAGNIER, LIMITED, PUBLISHERS

Corner Richmond and Sheppard Streets.
TORONTO - - - CANADA

M. B. TOUTLOFF, Editor

BRANCH OFFICES:

MONTREAL—171 St. James Street.

E. R. Milling, Representative.

WINNIPEG—336 Qu'Appelle Street.

F. C. Pickwell, Representative.

NEW YORK—156 Fifth Avenue.

A. R. Lowe, Representative

CORRESPONDENCE.—All correspondence should be addressed to "CONSTRUCTION," Corner Richmond and Sheppard Streets, Toronto, Canada.

SUBSCRIPTIONS.—Canada and Great Britain, \$3.00 per annum. United States, the Continent and all Postal Union countries, \$4.00 per annum, in advance. Single copies, 50c.

ADVERTISEMENTS.—Changes of, or new advertisements must reach the Head Office not later than the twentieth of the month preceding publication to ensure insertion. Mailing date is on the tenth of each month. Advertising rates on application.

CONTRIBUTIONS.—The Editor will be glad to consider contributions dealing with matters of general interest to the readers of this Journal. When payment is desired, this fact should be stated. We are always glad to receive the loan of photographs and plans of interesting Canadian work. The originals will be carefully preserved and returned.

Entered as Second Class Matter in the Post Office at Toronto, Canada.

WESTON WRIGLEY, Business Manager

FRED. T. HOLLIDAY, Advertising Representative

Vol. XII Toronto, Feb., 1919 No. 2

Association Work in Canada

Architectural Association work in Canada for several years has been more passive than active. The question is, will it remain so, or will it throw its collective energy and strength in the scale for the benefit of the profession? Along with this it might be asked, do architects mean what they say; are they sincere in the reforms they advocate, and will they support them in the final issue?

For many years both individual practitioners and the provincial associations have protested against the unfair outside competition to which architects in this country have been subjected. At the R.A.I.C. meeting at Montreal it was again an issue, presented by Mr. J. P. Hynes, both from the architect's standpoint and as a question of political importance. It was an issue which changed what promised to be merely a routine session into a period of lively discussion, involving the economic principle that the opportunities for technical practice in Canada should be conserved by the provincial enactment for the manhood of the country, somewhat along the lines of the Illinois Act governing education and registration.

Considering the importance of the question and the extended period in which it has been before the profession, the time has arrived when it must be definitely dealt with. The sentiment of the meeting was fully in accord with Mr. Hynes' views and the matter has been left to the Council to take up with the provincial associations. The extent to which it is given consideration and the measure of action taken will, therefore, indicate to a large extent the real usefulness and effectiveness of existing architectural organizations. If architects are really sincere that they want this condition improved and if they desire to enjoy the opportunities for practice to which they are entitled, then it is strictly up to them to take collective action instead of leaving all the work to a few men in each province. The spirit of the Montreal meeting can profitably be extended to association work in the various provinces, and more discussions and more addresses such as characterized that gathering, would be both of benefit and result in much being accomplished.

Annual Meeting of Toronto Exchange

A resume of the activities of the Toronto Builders during the past years was given in the address of W. E. Dillon, retiring President at the Annual Meeting held on January 20th. Reference was made to the Ottawa Conference which resulted in the formation of the Association of Canadian Building and Construction Industries with which the Exchange has since become affiliated; and also to the interviews with the Government in reference to housing and technical education. During the past year thirty members had been admitted to the Exchange, and the formation of a sewer and paving section and a roofing section were ready to be announced. Mr. Dillon spoke of the benefits to be derived from membership in the Exchange, basing his statement upon the personal experience of his firm. He referred to the keen interest taken in such questions as the Workmen's Compensation Act and Mechanic's Lien Law; and stated that it was the policy of the Exchange to do everything possible to improve labor conditions.

The following officers were elected for 1919: President, A. D. Grant, first vice-president, Walter Davidson; second vice-president, A. H. Dancy; treasurer, Jno. Aldridge; board of directors, M. John V. Gray, C. B. Jackson, J. R. Page, Geo. Stocker, and G. R. Douglas.

Moves to New Offices

Architects Wickson & Gregg, Toronto, have moved their office and draughting rooms from the Kent Building to suite 1112 Temple Building, corner of Bay and Richmond Streets.

London Exchange Elects Officers

The London Builders' Exchange recently held their twenty-first annual meeting at which the following officers were re-elected for the coming year: President, Harry Hayman, 1st Vice-President, L. A. Boss; 2nd Vice-President, E. Gerry; Honorary Secretary, Geo. S. Gould; Treasurer, Thos. A. Jones; Directors; B. Noble, Geo. Hyatt, A. C. Nobbs, John Whittacher, T. R. Wright; Auditors: J. R. Haslett, Geo. Mills; representatives Fair Board, T. A. Jones, Geo. S. Gould; annual convention, Messrs. Dennis, Boss, Gibbons, Willis, McWaine; Alternates, Messrs. Hayman, Pace, Martin, Young and Banks.

President Hayman congratulated the members on their loyal support to the Exchange during the period of the war. He stated that while conditions were not any too good during the past year, he regarded the outlook as most promising and expected to see the development of considerable work during the coming year.

Retain Name and Interest in Firm

The name and interest of the late Isadore Feldman will be retained in connection with the architectural firm of Hynes, Feldman & Watson, Toronto, of which he was a member at the time of his death. This has been announced by Mr. J. P. Hynes, senior partner, who is personally looking after all unfinished business of the deceased. The firm will continue to be known under the above name as heretofore, and Mr. Feldman's partnership will be perpetuated in the interest of his estate.

General Secretary Wanted

General Secretary wanted for the new Association of Canadian Building and Construction Industries. Preference will be given to young men who have had engineering education and construction experience. Good salary to the right man. Headquarters will be Ottawa. Must be good organizer. Send application to President of the Association, 65 Victoria St. Montreal.

Building Prospect 1919

(Continued from page 61.)

structures, as well as the erection of certain new buildings. One of the projects announced is a new million dollar cold storage plant to be built in Montreal during the coming summer. Another is a new customs house in Toronto to cost two millions, in connection with which the preparation of the site is to start without delay. The fact that tenders are at present being received for hospital pavilions in British Columbia, and for some of the repairs under

consideration, gives evidence that an aggressive policy is being adopted in carrying out these developments.

Other government work will consist of roadway construction involving an expenditure of \$25,000,000 on the part of the Dominion Government and five million dollars by the Ontario authorities. The appropriations are distributed so as to benefit practically all sections.

In addition to the foregoing, new buildings are to be erected at the Toronto University, and new schools will be built in various parts of the country. Competitive plans are now being called for the erection of new schools at Toronto which will be followed by other buildings of this type in the near future.

Accepting this as a basis without considering work in the various other provinces, including civic undertakings contemplated by many municipalities together with private projects, it seems safe to predict that the building permits this year will at least double the total of 1918, and that within the next couple of months a much improved condition will be noted in general throughout the Dominion.

CONTRACTORS and SUB-CONTRACTORS

As Supplied by the Architects of Buildings
Featured in This Issue.

CONSTRUCTION ON THE INTERNATIONAL NICKEL
COMPANY'S BUILDING.

- Air Compressors, Canadian Ingersoll-Rand Company, Montreal.
- Brick (Plain), Geo. Fridd Company, Hamilton, Ont.
- Brick (Fire), Stove-Fuller Company, Cleveland, Ohio.
- Brick (Fire), Elk Fire Brick Company, St. Mary's, Penna.
- Boilers, Babcock & Wilcox; also Stokers.
- Boiler Feed Water Controllers, Williams Gauge Company.
- Feed Water Heater, Warren-Webster Company.
- Conduits, Northern Electric Company.
- Cranes, Northern Crane Works.
- Cranes, Dominion Bridge Company.
- Cement, Canada Cement Company, Montreal.
- Casements and Window Construction, A. B. Ormsby Company.
- Concrete Work, Foundation Company.
- Electric Wiring and Apparatus, Allen-Bradley Company.
- Electric Wiring and Apparatus, Westinghouse Electric Mfg. Co.
- Electric Wiring and Apparatus, Northern Electric Company.
- Elevators and Hoists, Roelofson Elevator Works.
- Fire Doors, A. B. Ormsby Company.
- Flooring, J. B. Smith & Sons.
- Furring, Canada Metal Company.
- Furring, Thos. Robertson & Co.
- Glass, Pilkington Bros.
- Grilles, Robert Mitchell Company.
- Hardware, Canadian Yale & Towne, Ltd.
- Fans, B. F. Sturtevant Company.
- Heating System for Shops, Canadian Sirocco Company.
- Insulation of Piping, etc., Canadian Johns-Manville Company.
- Inspection, Dominion Engineering & Inspection Company.
- Inspection of Cement, Canadian Inspection & Testing Laboratories.
- Lockers, Durand Steel Locker Company.
- Marble Gauge Boards, Vermont Marble Company.
- Material Tests, Canadian Inspection and Testing Company.
- Graphite, Dominion Paint Works.
- Plumbing (Bath Fittings), Mott Company, Ltd.
- Pumps, Turbine Equipment Company.
- Pumps, Fraser & Chalmers.
- Plaster (Materials), Alabastine Company.
- Plaster (Materials), Ontario Gypsum Mines Company.
- Refrigerators, Eureka Refrigerator Company.
- Re-inforcement, Burlington Steel Company.
- Radiators, American Radiator Works.
- Roofing, Philip Carey Company (cement roofing).
- Scales, Fairbanks-Morse Company.
- Structural Iron and Steel, Dominion Bridge Company.
- Terra Cotta, National Fire Proofing Company.
- Sash Operators, Daylight & Ventilation Company.
- Ventilators, Geo. W. Reed Company.
- Valves, Golden-Anderson Valve Specialty Co.
- Valves, Jeffrey Manufacturing Company.
- Valves, Caffin Valve Company.
- Valves, G. W. Hunt Company.
- Valves, Darling Bros.
- Vitrolite Paint, Imperial Varnish & Color Company.
- Contractors (General), The Foundation Company.

CONTRACTORS FOR HOUSES (International Nickel Co.,
Port Colborne).

- Woodwork, Schultz Bros.
- Woodwork, J. B. Smith & Sons.
- Stone, Geo. Oakley & Sons.

Stone, Queenston Cut Stone Company.
 Tile, Canada Glass, Mantles & Tile, Ltd.
 Heaters, Spencer Heater Company.
 Wall Paper, Murray-Kay Company.

TORONTO HARBOUR COMMISSION BUILDING.
 General Contractors, Archibald & Holmes.
 Bronze Work, Canadian Ornamental Iron Company.
 Casements, Trussed Concrete Steel Company.
 Electric Fixtures, McDonald & Willson.
 Electric Contract, E. F. W. Salisbury.
 Elevators, Otis-Fensom Company.
 Glass, Trussed Concrete Steel Company.
 Hardware, Canada Hardware.
 Heating, A. Welch & Son.
 Valves and Traps, C. A. Dunham Company.
 Radiators, Dominion Radiator Company.
 Interior Woodwork, Green Bros.
 Marble (Entrance Hall and Stairs), Hoidge Marble Company.
 Plaster, R. C. Dancy.
 Material Tests, Canadian Inspection and Testing Company.
 Plaster (Special Spandril), W. J. Hynes.
 Plumbing (Contract), A. Welch & Son.
 Plumbing (Fixtures), Port Hope Sanitary.
 Vault Doors, J. & J. Taylor.
 Painting (Vault Floors), Jos. McCausland.
 Iron Stairs, Canadian Ornamental Iron Company.
 Battleship Linoleum, T. Eaton Company.
 Pump Equipment, Canadian Fairbanks-Morse Company, Ltd.
 Signals, Dominion Messenger & Signal Company.
 Ash Hoist, Herbert Morris Crane & Hoist Company.
 Boiler, Gurney Foundry Company.

ISSUING NEW CATALOGUE.

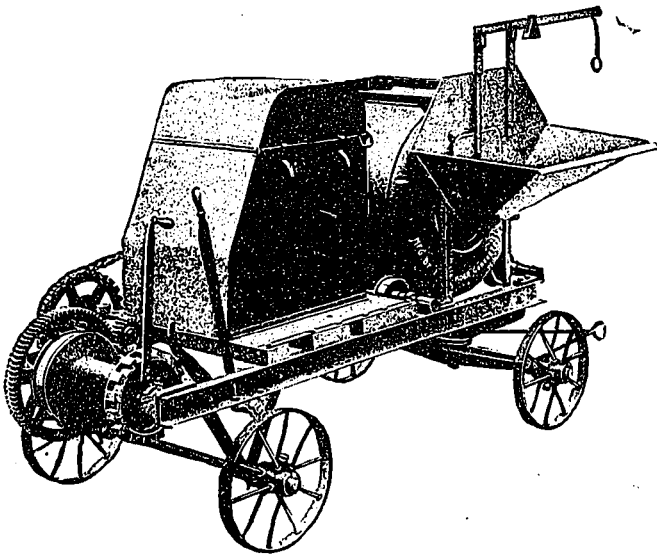
The Mueller Manufacturing Company, Sarnia, Ont., are issuing a new general catalogue comprising three hundred pages on water, gas and steam brass plumbing goods. The catalogue is still in the hands of the printer, but will be ready for distribution within a few weeks.

A NEW COMBINATION MACHINE.

The accompanying illustration shows a new type of machine recently placed on the market by the London Concrete Machinery Co., of London, Ont.

It is a combination machine, two machines in one. A concrete mixer of either four cubic feet or six cubic feet capacity and a hoisting drum of 1,500 or 2,000 pounds capacity are built into one machine, and both are operated with a dust-proof gasoline engine. The hoisting drum or the concrete mixer can be operated separately or together. The motor is of extra large size, giving ample power to run the mixer and to hoist material at the same time.

This type of machine will be welcomed by many contractors



whose work is not large enough to warrant the operation of two separate machines on their work.

The concrete mixer is suitable also for such work as building silos, barn walls and bridges, is especially advantageous for laying sidewalks, as the hoisting drum can be used to move the mixer by attaching a cable and operating the hoisting drum. This mixer can be moved 500 feet at a time with its own power.

Bricklayers and masons use this machine to mix their mortar. One man with this machine can mix more mortar than six men can by hand labor, and the same machine can be used to hoist all the material, or to operate a derrick.

This company brought out this combination machine at the request of a large number of prominent contractors, who had work where one outfit of this type would be more suitable.

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ARCHITECTS are hereby invited to submit competitive plans and specifications on or before APRIL 1st, 1919, for the JOHN ROSS ROBERTSON PUBLIC SCHOOL to be erected on GLEN GROVE AVENUE, and for a PUBLIC SCHOOL BUILDING, to be erected on GLENHOLME AVENUE.

Conditions of this competition will be furnished on application to the Secretary-Treasurer, Administration Building, 155 College Street, Toronto.

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