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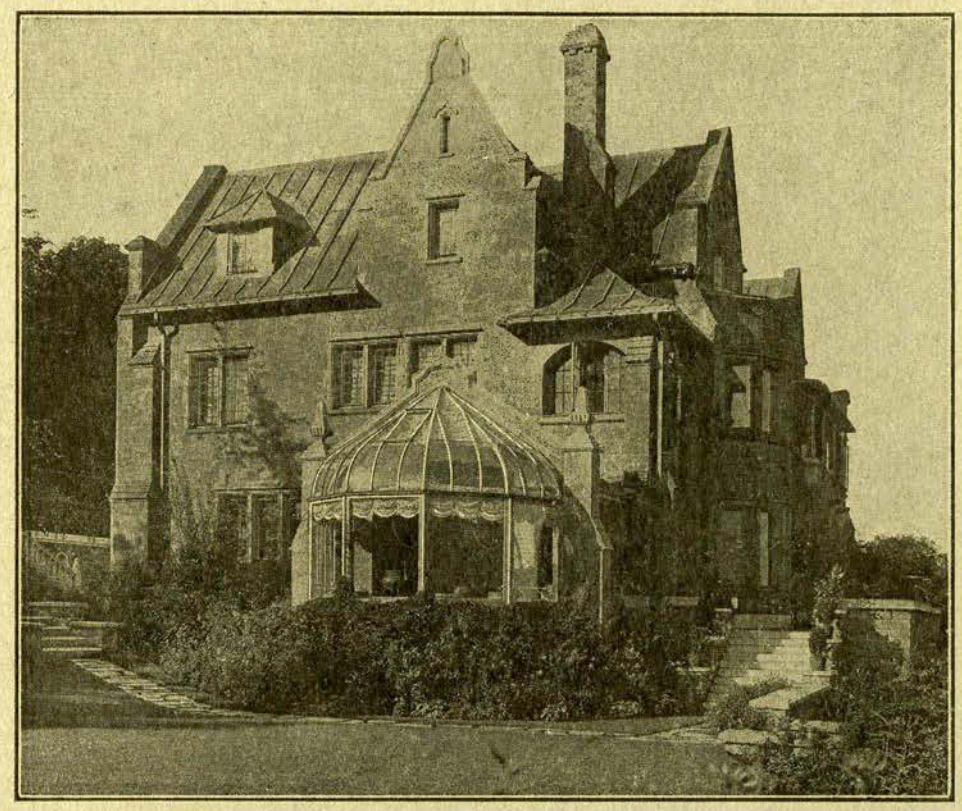

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*Deceased.

THE JOURNAL
Royal Architectural Institute of Canada

Volume 1 TORONTO, OCTOBER TO DECEMBER, 1924 Number 4

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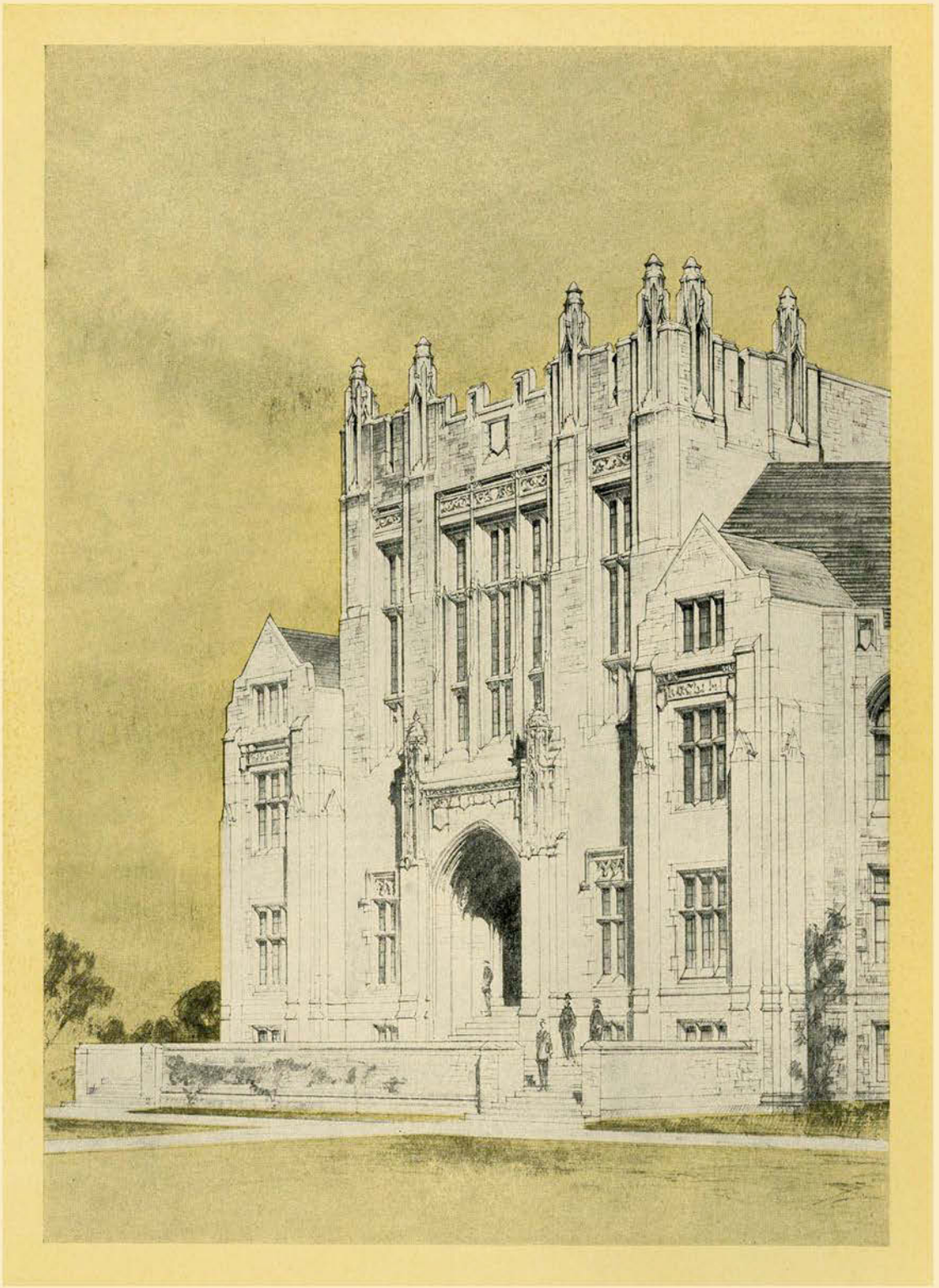

SKETCH OF ENTRANCE TOWER
CHEMISTRY BUILDING
UNIVERSITY OF SASKATCHEWAN

David R. Brown, Architect

THE JOURNAL

Royal Architectural Institute of Canada

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Editorial

*"It is a high honour to be a member of the Royal Architectural Institute of Canada. This membership gives one a friendlier feeling towards my confreres of the East and West, a warmer sympathy in their difficulties, and because the Institute takes in that great sweep north of the 49° parallel, from the Atlantic right across the Arctic to the Pacific Ocean, it gives one a splendid perspective—an outlook that is boundless—as architecture should truly be."**

THE success of the Convention was one more evidence of the value of getting together and becoming organized. Organization is the outstanding necessity of the day. It might almost be put in the slogan "Organize or Perish", and we cannot get it over too strongly to those who did not attend the Convention the outstanding value of being organized in word and deed as well as in name. At the risk of telling an old story we quote the following to emphasize the need of organization—"The guard in a mental hospital was showing a friend through the institution one day. As they were passing through the recreation field the friend noticed several of the inmates with sticks, stones and other weapons as if they were intent on doing bodily harm to them. Somewhat fearsome, the friend said to the guard: 'Are you not afraid these folks will get together and injure you?' 'Get together, get together man!' said the guard, 'if they knew enough to get together they would not be here.'" Organization is recognized as the basis for development and progress in all walks of life.

* * *

This, the Convention Issue of the JOURNAL, completes the first year of its existence, and it is perhaps fitting to pay our respects now to our esteemed contemporaries and thank them for their complimentary expressions on our appearance in their midst. We also wish to take this opportunity of thanking those members of the profession as well as advertisers who have also complimented us on the JOURNAL. It might be appropriate to quote from Mr. Stanley T. J. Fryer's remarks on the JOURNAL, when as President of the Ontario Association of Architects he greeted the members of the Institute at the opening session of the Convention—

"May I take this first opportunity of congratulating you on the real success of the Institute's JOURNAL and wish it a long and increasingly successful life. We as Canadian Architects take a real pride in it. While our efforts as an Association are provincial and of such benefit and interest as we can make them to the people and profession of this province, we wish for you success in awakening the interest of the whole Canadian public from coast to coast to the value of good architecture; not only structurally, but to a keener appreciation of design, of what is fine in architecture. May you also quicken the heart of the architectural profession to its large responsibilities."

* * *

Owing to the fact that this issue is devoted mostly to Convention activities, we must ask the indulgence of the readers of the JOURNAL for the omission from this number of some of our regular features.

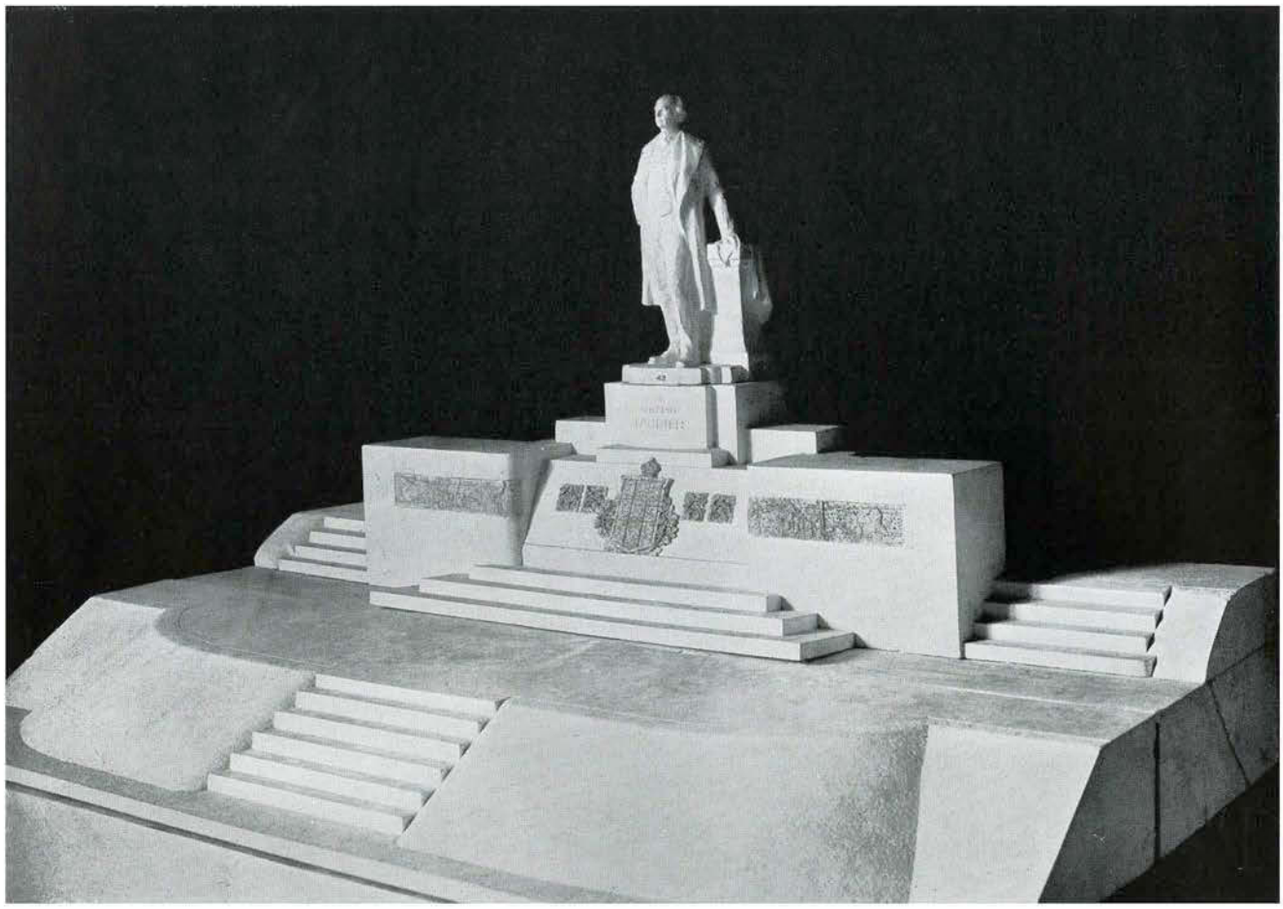
* * *

Mr. Jordan, our retiring President, so stressed the success of the JOURNAL and its value as a means of constant contact between the members of the Institute that the Publicity Committee's recommendation to issue the JOURNAL every second month was unanimously adopted by the Convention. The next issue of the JOURNAL, therefore, will not only mark the beginning of its second year, but also the inauguration of the issuing of the JOURNAL every second month. This is a more rapid stride towards the monthly issue of the JOURNAL than we dared hope for a year ago.

* * *

We are constantly being handed advice as to how the profession and the JOURNAL should be conducted. Some of this advice includes gems of architectural thought too nebulous to be published and yet too good to be lost. Therefore, beginning with the next issue of the JOURNAL there will be space allotted to correspondents, thereby giving the individual membership an opportunity to bring to the light of day any grievances or bright ideas which they may have.

*An excerpt from Mr. Stanley T. J. Fryer's Address at the R.A.I.C. Convention.



Winning Design for the Monument to the late Sir Wilfrid Laurier

EMILE BRUNET, 675 Cote des Neiges Road, Montreal, has been awarded the design for the Dominion Government memorial to be erected on Parliament Hill in memory of Sir Wilfrid Laurier. Prof. Antonio Sciortenio of Rome, Italy, has been awarded the second prize of $1,000.

The competition, which was open to architects, artists and sculptors throughout the world, attracted the work of forty entrants, about half being from Canada and the United States.

The models which came from sculptors in Canada, United States, England, France and Italy, were judged by a committee of the cabinet in conjunction with the advisory arts council for the Government, who were associated with Herman A. MacNeil, of New York, representing the Royal Canadian Academy of Arts, and John Pearson, architect of the Parliament Buildings, representing the Royal Architectural Institute of Canada.

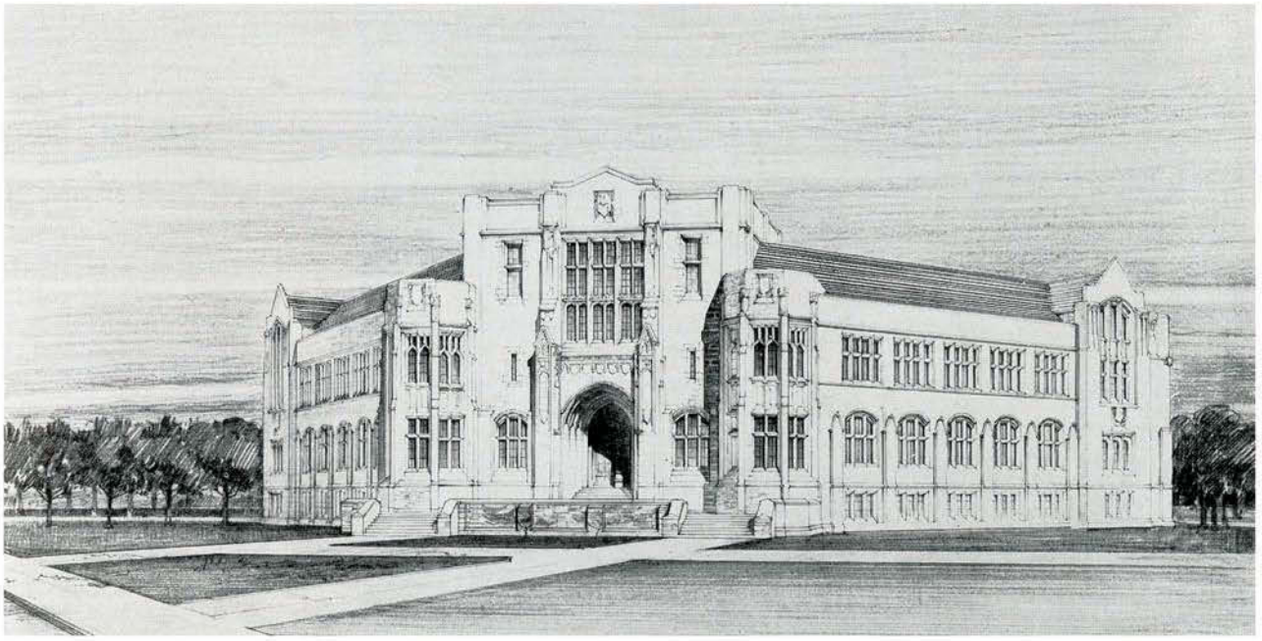
After careful consideration the models of Emile Brunet and Antonio Sciortenio were accepted for first and second places.

While appreciating the excellent work of some of the sculptors, it is gratifying to Canadians that the work of a young Canadian should be accepted.

Brunet has caught the likeness of Sir Wilfrid with wonderful accuracy. There is a naturalness and freedom from stiffness that is characteristic of the subject. One can see him standing in a firm position, his right hand on his hip, his left arm bent as one often saw him on the hustings or in Parliament. He is wearing an overcoat over a morning coat. There is the familiar four-in-hand necktie with the horseshoe tiepin. He is standing at the side of his tribune of progress, justice, and patriotism in a firm position to follow his ideals. In front of him down below on each side of the Canadian coat of arms are the ornaments of the fleur de lys, the shamrock, the rose, and the thistle, representing the four races which Sir Wilfrid aimed to see gathered together. Two bas reliefs represent the work of Laurier. The left shows the maritime industry and the industrial progress and his representation of Quebec East for forty years. The right side represents the Manitoba question, the justice to the Metis, the division of the northwest territories, Saskatchewan and Alberta provinces, agricultural progress, and the Grand Trunk Pacific.

The monument will be cast in bronze. It will be surmounted on granite base, with steps on either side.

The site of the monument will be at a point in the grounds of the Parliament Buildings on the mound between the east block and the approach thereto from the gate on Wellington Street at the entrance to "Lovers' Walk." It will face Connaught Square, looking in a southerly direction toward Union Station.



CHEMISTRY BUILDING, UNIVERSITY OF SASKATCHEWAN
David R. Brown, Architect

The University of Saskatchewan, Saskatoon

IN the spring of 1909 the writer was consulted by the Governors of the University of Saskatchewan regarding the layout of the campus and the buildings to be erected on the half section of land which had been acquired—on the opposite bank of the South Saskatchewan River from the City of Saskatoon.

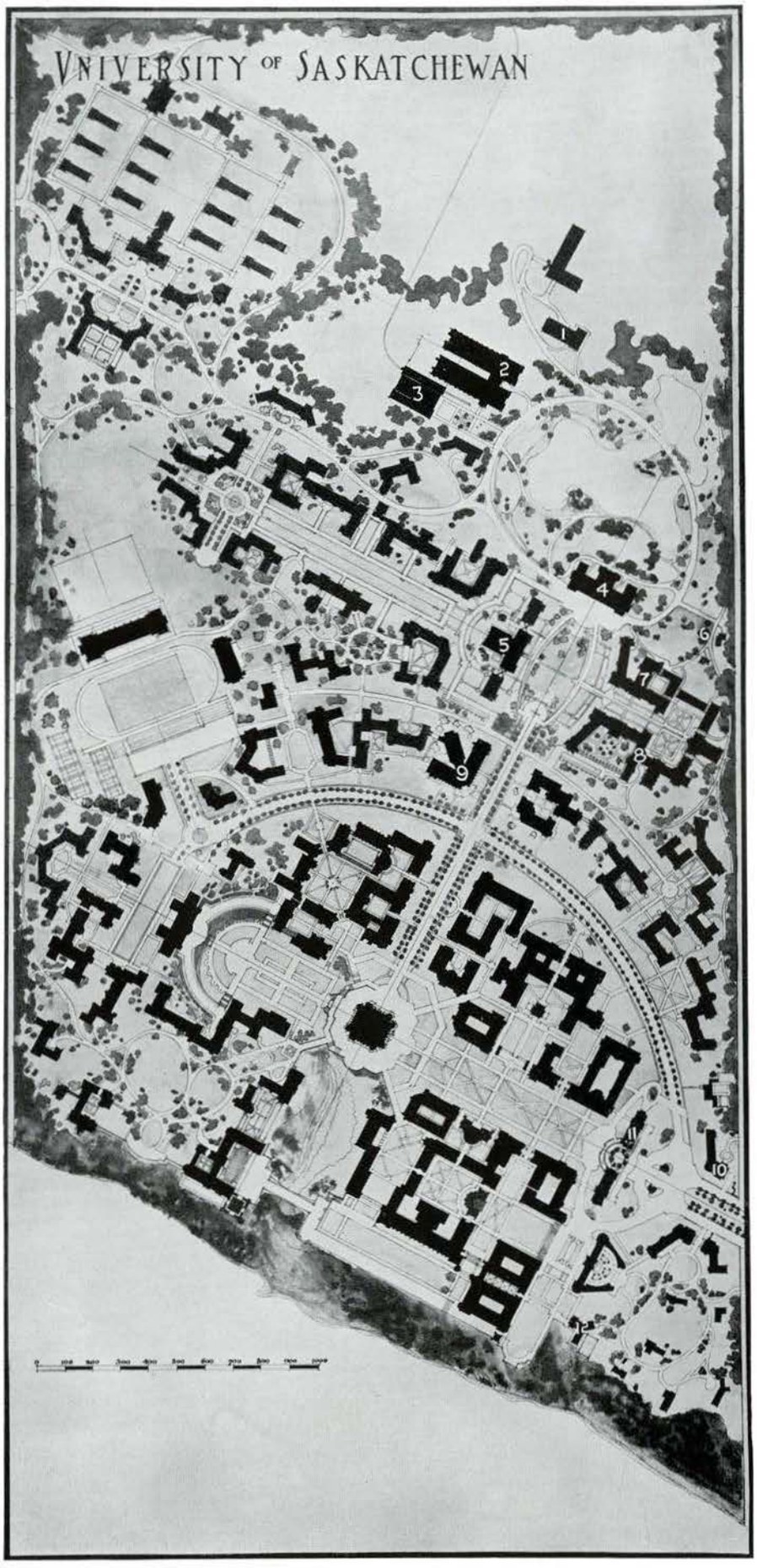
A Commission appointed by the Governors had just returned from a visit to the leading Universities in Canada and the United States impressed by the fact that, with the exception of one or two, none had realized the tremendous growth of higher education and had not planned for the future. With this in mind the Board's instructions were to prepare a plan flexible enough to be extended to accommodate ten thousand students.

On visiting the site to discover some outstanding features to determine the layout, it was found that a deep ravine cut the river frontage into two parts and an old trail from Saskatoon to some settlements, famous during the last Riel rebellion, crossed the property parallel to the river.

The ravine was made the key to the plan and the trail the main artery to the several groups of buildings, and on these lines a preliminary layout was prepared and adopted by the Board. Minor changes have been made as the scheme developed, and the accompanying block plan brings the development up to date.

It was agreed that the Convocation Building should be placed on the edge of the ravine, and by damming provide a barrier for a lake extending eastwards, and the larger or more monumental buildings along the river bank.

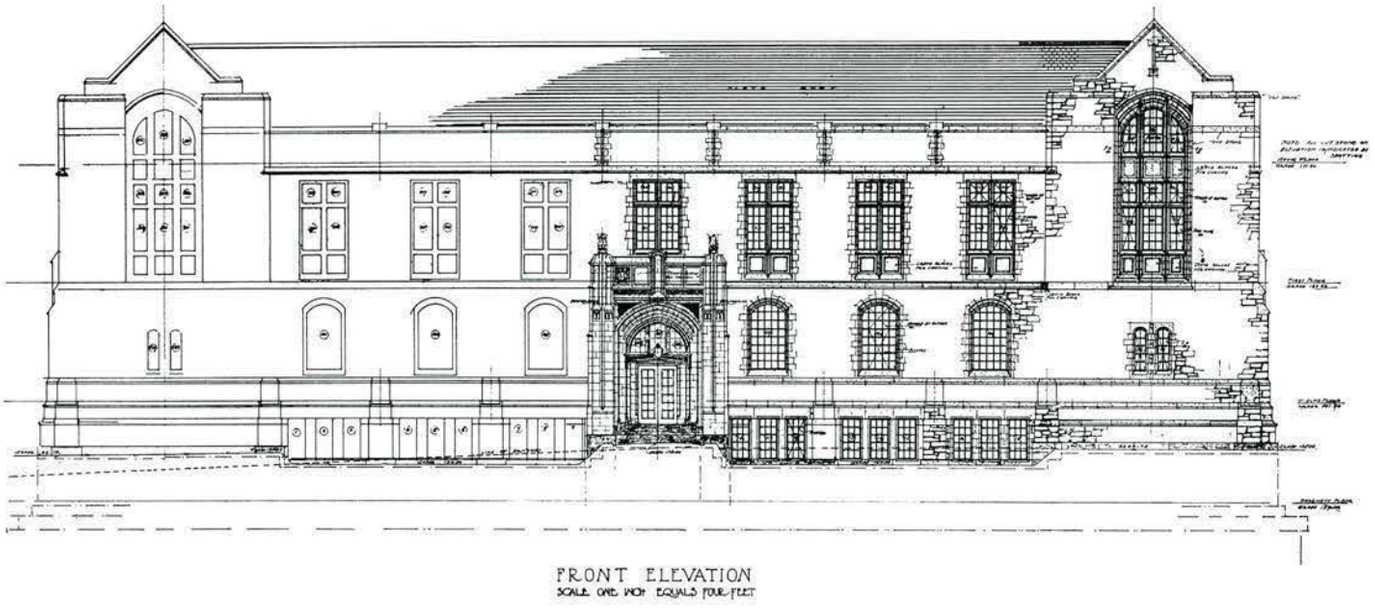
Since the University training for some years was to be largely agricultural, it seemed wise that the buildings for this work should be erected as near the farm as convenient. These were to be among the first buildings erected and progress would be, therefore, from the farm to the river. The buildings first contracted for were the Agricultural College Build-



PLOT PLAN,
UNIVERSITY OF
SASKATCHEWAN
David R. Brown, Architect

BUILDINGS ERECTED

1. BARNS, ETC.
2. ENGINEERING BUILDING.
3. POWER HOUSE.
4. AGRICULTURAL COLLEGE.
5. PHYSICS BUILDING.
6. PROFESSORS' RESIDENCES.
7. SASKATCHEWAN HALL (*Students' Residences*)
8. QU'APPELLE HALL (*Students' Residences*)
9. CHEMISTRY BUILDING.
10. PRESBYTERIAN COLLEGE.
11. MEMORIAL ENTRANCE GATES.
12. PRESIDENT'S RESIDENCE.

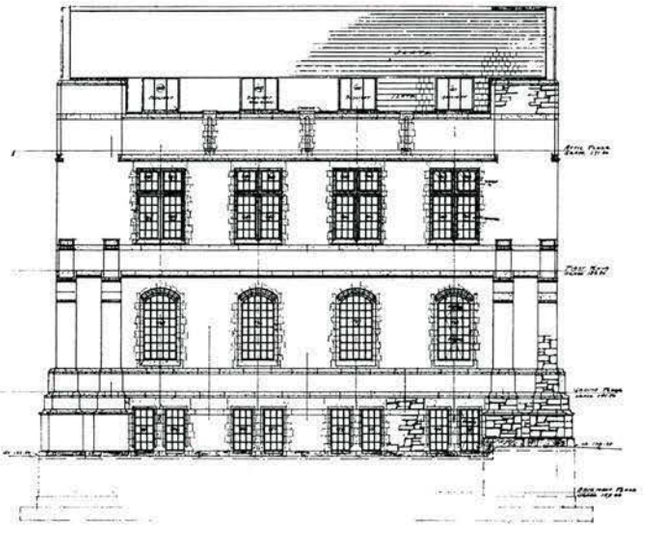


FRONT ELEVATION, PHYSICS BUILDING, UNIVERSITY OF SASKATCHEWAN
David R. Brown and Hugh Vallance, Architects

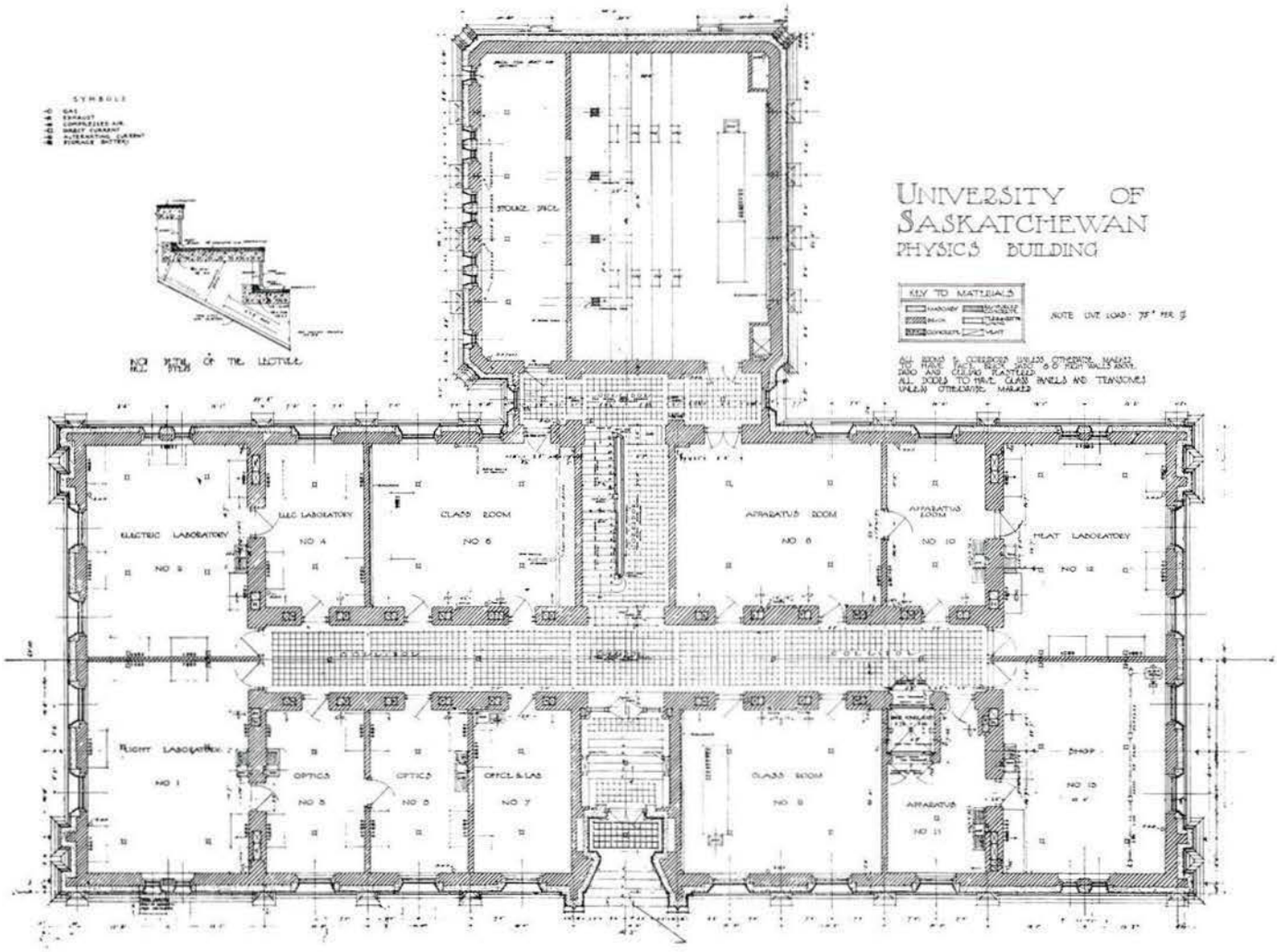
ing, the Engineering Building, the Live Stock Pavilion and the Power House. Following these came Saskatchewan and Qu'Appelle Halls (residences for the students), Physics and Chemistry Buildings, Horticulture and Farm Buildings. Both residences and the Chemistry Building have additions to be made to them before they are complete, but amongst them the work of the University goes on until such time as the Arts Building is erected.

As suitable building stone at the time was unknown in the province, it was thought that the buildings would be built in brick with stone trimmings. Fortunately a limestone of a warm, cream tone was found convenient to the site before the plans and specifications were underway and the University is now assured of stone for an indefinite number of buildings.

The Agricultural College Building, Chemistry and Physics Buildings, Saskatchewan and Qu'Appelle Halls, the Anglican and Presbyterian Colleges and President's residence are built of this cream colored rubble stone with Bedford stone trimmings. The



NORTH-WEST ELEVATION
David R. Brown and Hugh Vallance, Architects



PLAN OF PHYSICS BUILDING, UNIVERSITY OF SASKATCHEWAN
David R. Brown and Hugh Vallance, Architects

type of construction adopted for the buildings was a re-inforced concrete frame and combination concrete and tile floors, steel roof trusses with Nalecode roof slabs to the later buildings, and green fading slate roofs with copper flashings.

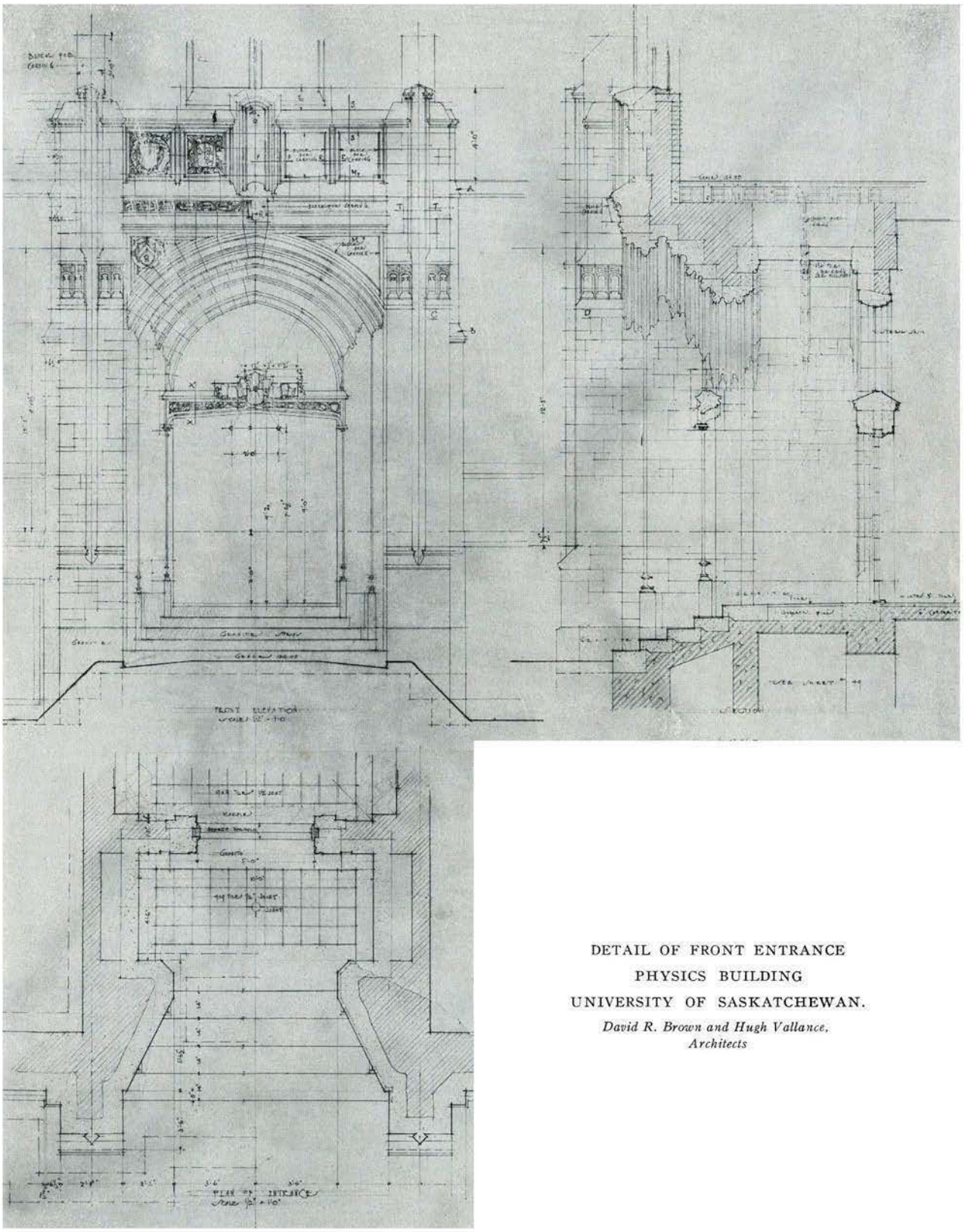
Saskatchewan Hall has a dining hall capable of seating 250 persons with the necessary kitchen and pantry accommodation. The kitchen wing to Qu'Appelle Hall not being built yet, the space reserved for the dining hall has been fitted up as a temporary gymnasium, and a plunge bath has been built under this gymnasium in the basement. These will be used until such time as the Gymnasium Building is erected. The College Building has a small auditorium which in the meantime is used for all purposes.

The interior finish of all the buildings is white quartered oak with tile floors in all corridors; brick, asphalt and cement in classrooms and laboratories. The walls of all corridors and rooms in the Chemistry and Physics Buildings are lined with re-pressed fire brick and the corridors of the College Building in glazed terra cotta. Steel casement sash have been used in the College Building, Chemistry and Physics Buildings, Saskatchewan and Qu'Appelle Halls, and the President's residence.

The Engineering Building and Live Stock Pavilion are of brick and mill construction. The Power House, also of brick but of fireproof construction, houses a complete, up-to-date boiler and power equipment consisting of 1,500 H.P. Babcock and Wilcox water tube boilers with chain stokers, economizers and Westinghouse generators for the necessary power and light.

The tunnels connecting the buildings with the Power House are 6 ft. 0 in. x 7 ft. 0 in. in size, and contain all heating and water pipes, and electric cables.

The heating of the buildings is by low pressure steam with vacuum pumps in the Power House and booster pumps in the buildings. High pressure steam is taken to all the buildings for experimental purposes, as well as compressed air to the Physics Building. Ventilation is provided for by fans in

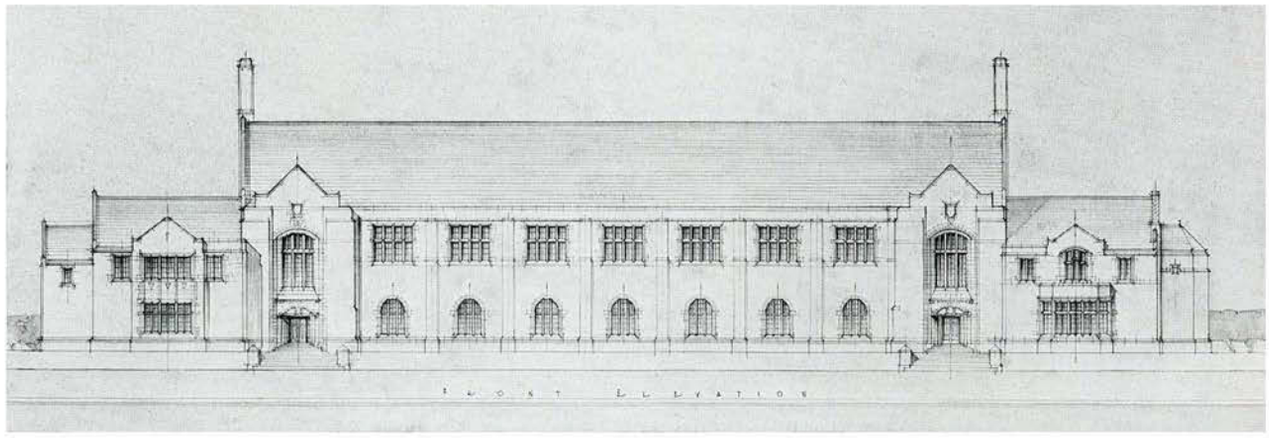


DETAIL OF FRONT ENTRANCE
PHYSICS BUILDING
UNIVERSITY OF SASKATCHEWAN.
David R. Brown and Hugh Vallance, Architects

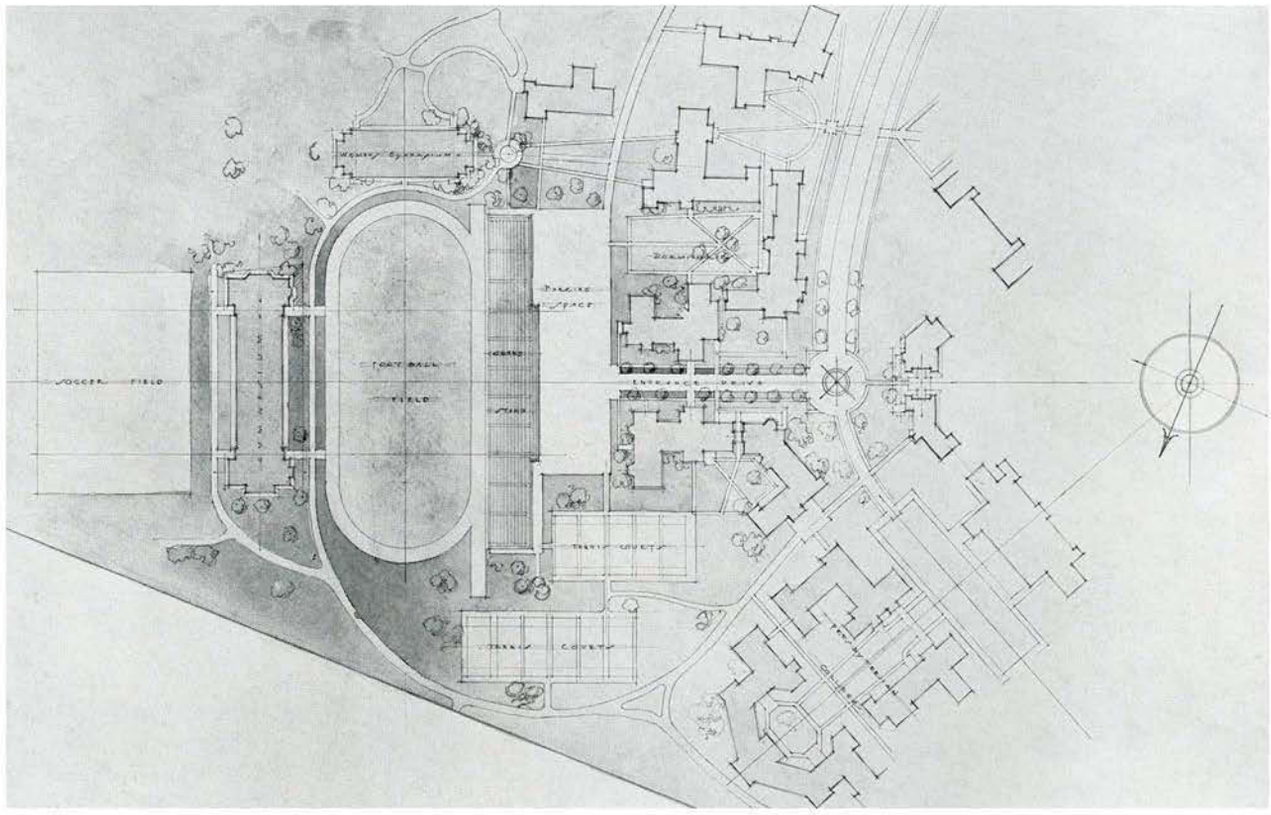
the basement of each building, drawing fresh air through heating coils, air washers and re-tempering coils, and exhausting through fans in the attics.

The Board of Governors are to be congratulated on the broad view they took in the planning of the campus, and although the development is comparatively slow, as the province fills up with settlers the University is bound to extend, and nothing has been done that will spoil the general scheme as decided on in 1909. At present efforts are being made to improve the campus by planting and constructing roads for the buildings which it is hoped will be required in the next few years.

DAVID R. BROWN

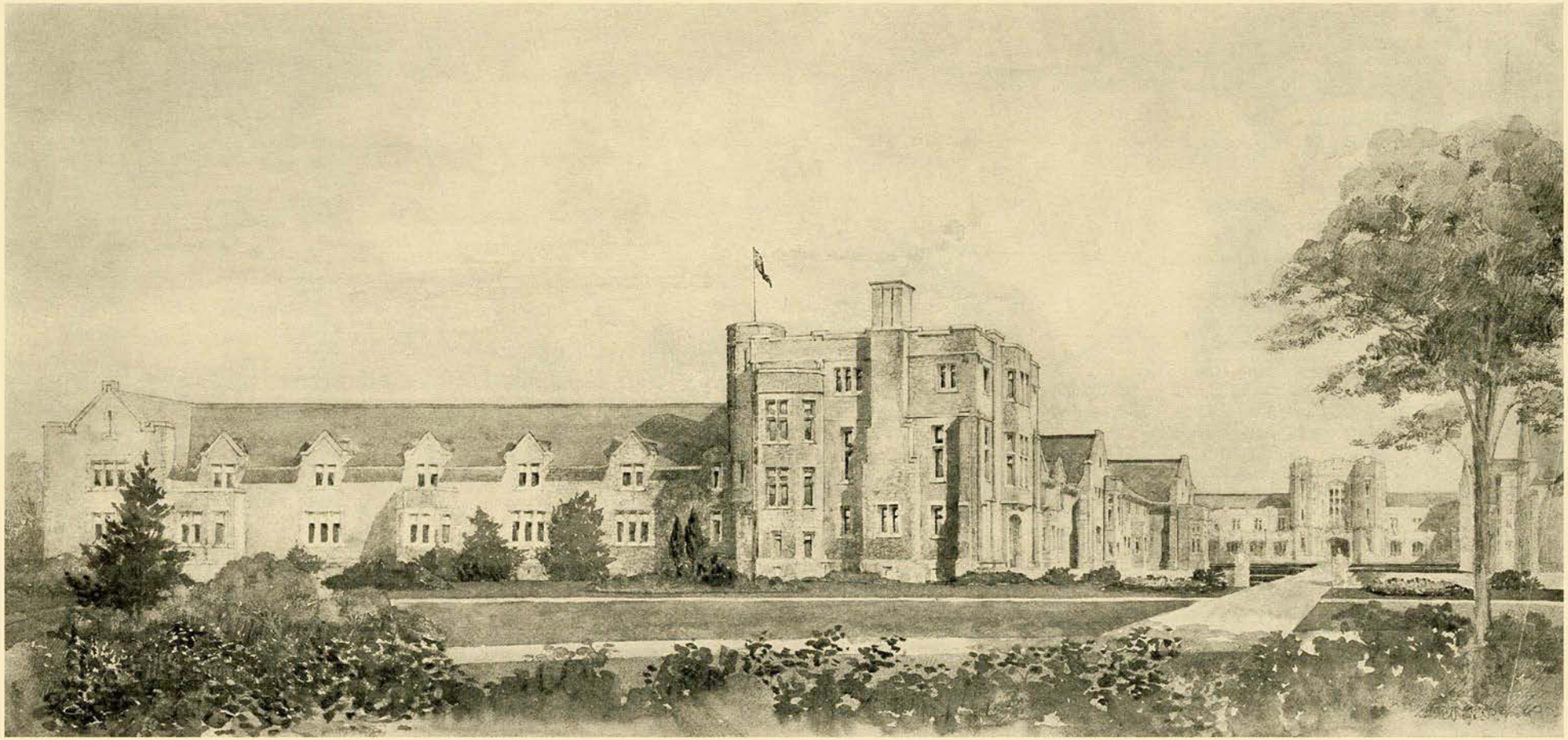


PROPOSED GYMNASIUM, UNIVERSITY OF SASKATCHEWAN
David R. Brown, Architect



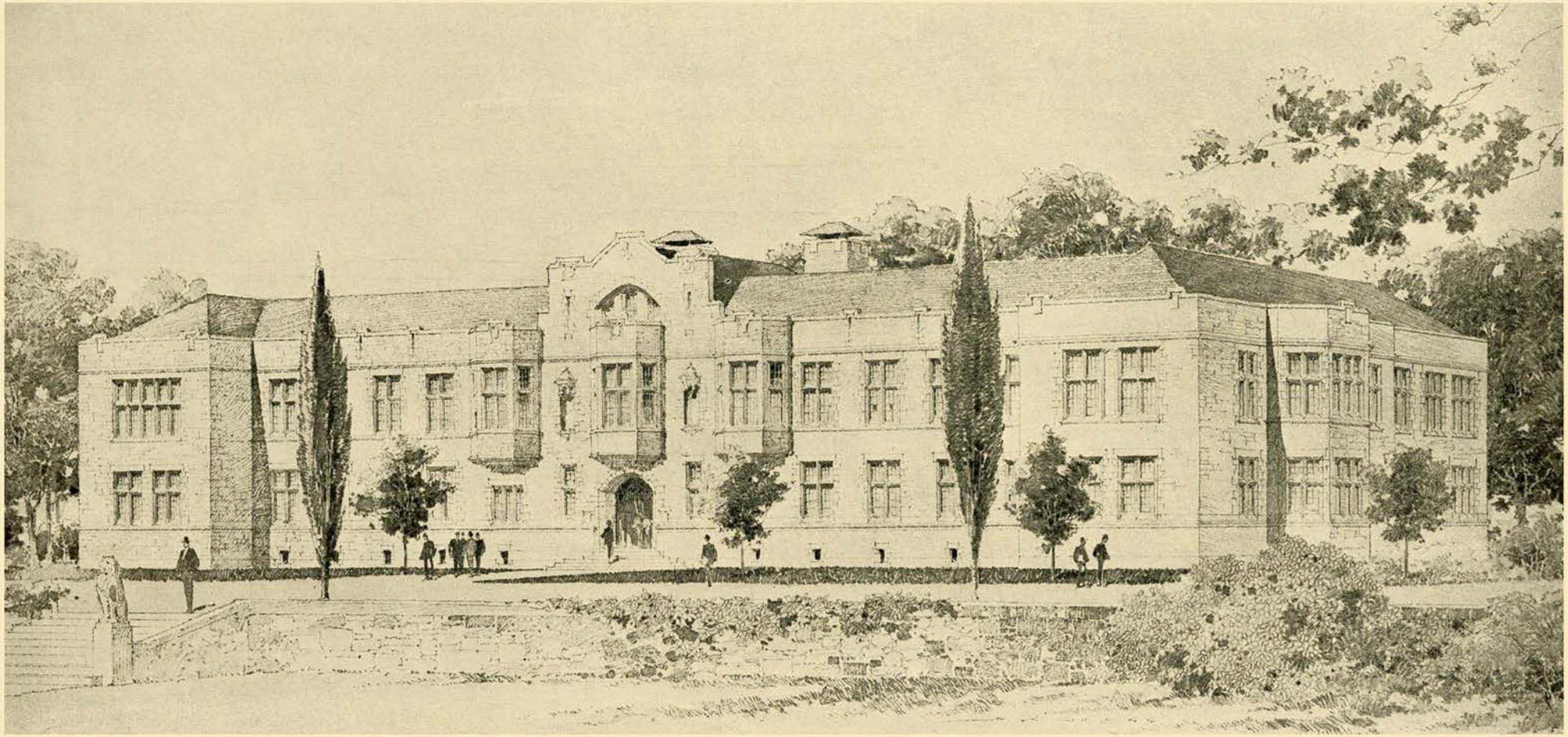
PLOT PLAN, PLAYING FIELD, PROPOSED GYMNASIUM, UNIVERSITY OF SASKATCHEWAN
David R. Brown, Architect

MEMORIAL GATES, UNIVERSITY OF SASKATCHEWAN, SASKATOON
David R. Brown, Architect



SASKATCHEWAN HALL, UNIVERSITY OF SASKATCHEWAN

David R. Brown and Hugh Vallance, Architects



AGRICULTURAL COLLEGE, UNIVERSITY OF SASKATCHEWAN

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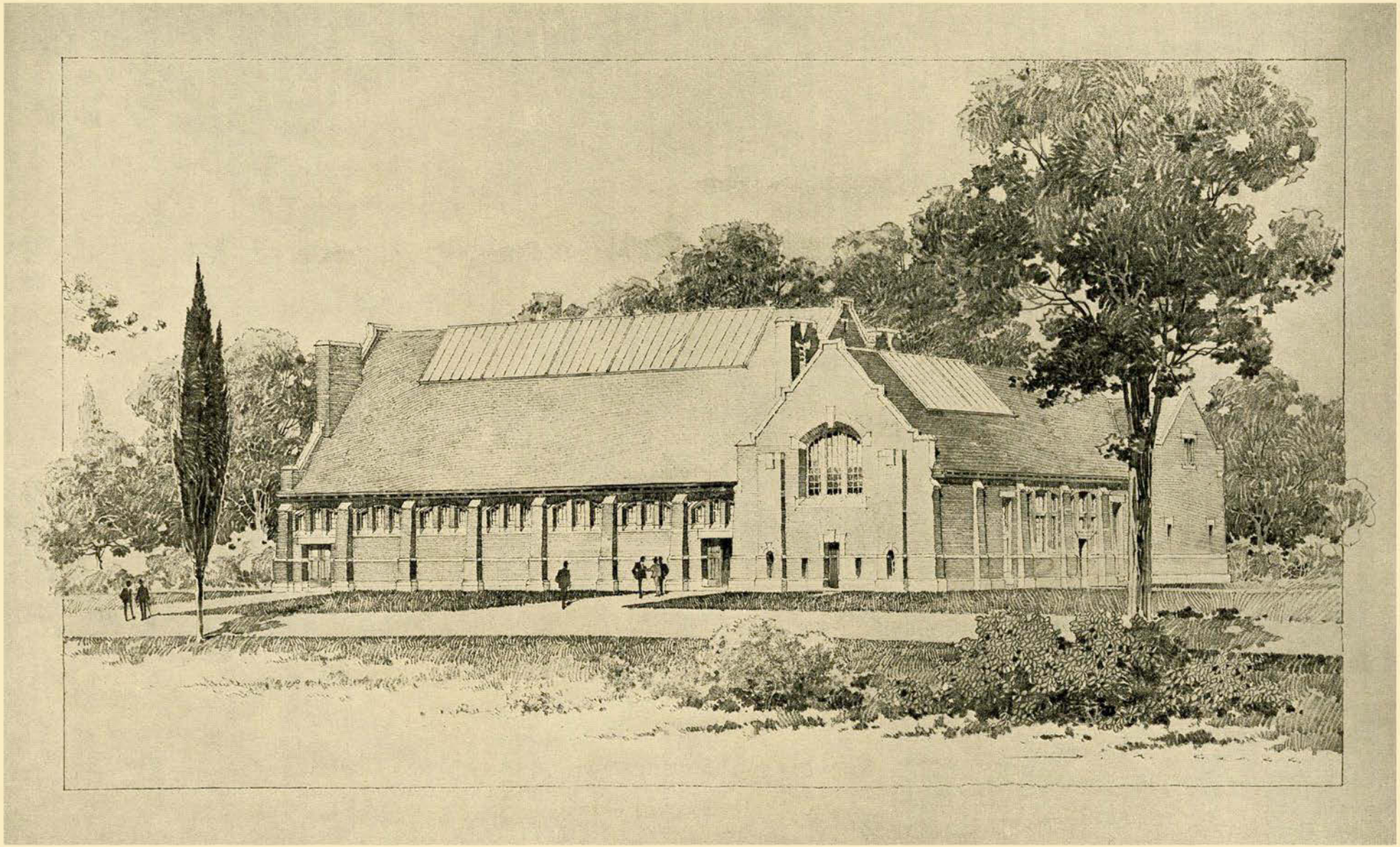

LIVE STOCK PAVILION, UNIVERSITY OF SASKATCHEWAN

David R. Brown and Hugh Vallance, Architects

Some Impressions of Canadian Towns

BY PROFESSOR C. H. REILLY
School of Architecture, University of Liverpool, Eng.

EDITOR'S NOTE—This is the third of a series of Articles written by Prof. Reilly. There will be one more. The next issue of THE JOURNAL *will contain his impressions of St. Anne de Beaupré*

III.—QUEBEC.

IT is a marvel that the mass of Americans rush to Europe without first seeing Quebec, for here is a piece of Europe as picturesque and full of character as anything they will find on the other side waiting for them at their doors. I believe now that the pinch of prohibition is beginning to be felt they are starting to go there. Let us hope if they now go mainly to drink they will remain to pray that some day their own towns may have something of the same mellowness and dignity, the same tenderness and reserve, that this quiet old French town so plentifully possesses. Much as one must admire the many extraordinary qualities of New York and Chicago, their kindest friends must admit that without some deep spiritual conversion the special quality of Quebec, apart altogether from the unique beauty of its site, is something entirely beyond them. In what exactly this quality consists it is difficult to say. It is not, for instance, in the quietness of Bath living on the memories and architecture of past pomps and vanities. It is not in a combination of picturesqueness and cold intellectual austerity like that of Edinburgh, though its site is far more picturesque and I daresay its intellectual qualities are not lacking. Strange as it may seem, it appears to me to lie in a simple and pious attitude to life, which is shown in the dual monuments erected by the town to both Wolfe and Montcalm, and in the single monument to the brave of both armies. It is shown, too, in the homely, almost domestic, character of its cathedral, so very intimate and human in its architecture that the most hardened worldling would be tempted to confession.

THE CATHEDRAL

Let us consider this building a little. It is on the small old market place, with the Post Office building on one side and the Town Hall on another. Laval University is behind it, and the best shops are close at hand. It is the cathedral, remember, of the capital of perhaps the most uniformly Catholic district in the world. You might expect, therefore, a certain display of pomp and power. Instead you have a simple and dignified Roman arched entrance leading to an interior which combines the romance of high altars with the quietness of a Friends' meeting-house, and yet remains a cathedral. It is a church that has been added to from time to time yet never spoilt, because the hands that did it were all impressed with the same spirit. However apparently incongruous the detail they brought—Georgian balconies, Louis Seize gilding, or cut glass chandeliers—there was a quality of simplicity, even of naïveté about the gilt, which made it fit in with the spirit of the church. It seemed to me on a short visit that there was much of the quality of this homely, intimate, yet spiritual building in the town itself. The streets are narrow and picturesque like those of many a Normandy town, but with a strangely Puritanical air. There are practically no cafés or restaurants to be seen, no gay advertisements of *aperitifs*. Each house or shop seems content with itself and its own way of life, and not too anxious to attract the passer-by. If you want to buy a cake, you feel you must knock at the door, take off your hat, and ask permission as politely as you can, and you will then be very courteously received. How such an atmosphere exists on the American continent, and how it remains intact to-day in spite of trolley-cars, banking corporations, and C.P.R. hotels is a mystery to which I believe only the Catholic Church holds the key.

A ROMANTIC SIGHT

If this is what you feel as you walk the streets of this quiet but thriving old town, with its 100,000 inhabitants, with its docks, elevators, and factories, what you see from the river when you approach it is one of the most romantic sights in the world. The St. Lawrence makes a sharp bend immediately in front of the town, so that the cliff on which it stands has almost the effect of a headland. This cliff is crowned with buildings of distinctive outline, like the great C.P.R. hotel, the Chateau Frontenac, the domed Post Office, the upstanding block of Laval University. Below it is the lower town, a pleasing medley of roofs from among which stand out as sentinels in the foreground some great grain elevators. Docks and wharves line the actual shore, from which little ferryboats are always darting out to the town of Levis, on the opposite side of the river, and to other places. A feature of the town as seen from the river, and especially at night when their lines are emphasized by dense rows of lamps, are the famous terraces—the wooded battery terrace halfway up the hill, and the great parade at its top in front of the Chateau. These upper lines of light seem to extend for miles, for the plateau on top of the cliffs behind the town, called here the Heights of Abraham and the scene of one of the few decisive battles in history, has been laid out as a pleasure ground, with Wolfe's Cove as a place for picnics. It is in this park that the monuments to conquerors and conquered alike have been put up. A fine drive, called the Grande Allée, leads to it from the town, at the commencement of which are the Parliament Buildings, a good stone block with French Renaissance detail of no great pretensions, but, nevertheless, the best Parliament building I saw. (I ought to say I did not go to Winnipeg, where Mr. Frank Simon, late architect of Liverpool, has in his Parliament buildings there put up what is probably the best building in Canada.)

Some Impressions of Canadian Towns (Continued)

A BLEMISH

Following the Grande Allée, one passes the chief residences in the town, as well as the barracks and garrison club, before reaching the battlefield, which is a fine open sweep of grass perhaps some square mile in extent, following the cliff and intersected with drives. The blot on it, and it is a very serious one, is a red brick factory with a hideous water tower which was erected for the manufacture of the Ross rifle. I suggest that the best memorial Quebec could institute to the late war would be to remove this blot from her park, the silhouette of which spoils the whole outline of the heights as seen from the river or the opposite bank. If one takes the cross drive at right angles to the main drive parallel to the cliffs, one comes to a steep declivity, crowned by the monument, already mentioned, to the soldiers of both armies, at the foot of which spreads out before you as a surprise another view of the St. Lawrence and the roofs of the lower town, which, with the river, have curved round to this side, showing that the town is really situated on the promontory it appeared to be when first seen. It must be remembered, too, that one can properly talk of a promontory in a river of the width of the St. Lawrence, up which for several hundred miles the largest liners sail to reach Quebec. To reach ours we must plunge down again into the quiet old streets, rattle under the archways of the old walls, drive through the old square with its green shutters and the hotel with the trellis verandah, along a narrow planked road of overhanging houses, out on the quay with its elevators, and finally to the big ship, a mere tugboat on the bosom of the St. Lawrence. In doing so we bid farewell to a city which will always remain in my dreams as a queen of romance, who was a holy saint and gracious lady too.

Exhibition of the Older Architecture of the Province of Quebec

THAT Quebec has lost by the ruthless demolishing of her beautiful old buildings to make room for more modern ones, as well as buildings embodying her finest traditions which have up to the present escaped the hands of the wreckers will be shown in an exhibition of the older architecture of the province to be held in Montreal between November 12th and 24th, under the auspices of the Province of Quebec Association of Architects.

The object of the exhibition is to stimulate the interest of the public and of the official world in the preservation of beautiful old buildings of the province and also to enable architects to realize more fully the value of the traditions they inherit.

The Province of Quebec Architects' Association, McGill University School of Architecture, Historical Monuments Commission, The Provincial Ecole des Beaux Arts de Montreal, the David Ross McCord National Museum and the Dominion Archives will contribute material in the way of sketches, drawings and photographs to the exhibition. The Province of Quebec Association of Architects will show the work of their travelling students who for many years past have surveyed the older buildings of the province. It is hoped also that there will be on view sketches and photographs by members of the Association. The McGill School of Architecture is expected to show surveys of old buildings of the province done by third and fourth year students who travel in the province each year to make surveys of such buildings as part of their school course. It will also exhibit part of the rich collection of photographs made by the Department of Architecture.

The McCord National Museum will exhibit part of the survey of the old buildings of the province made at the expense of David Ross McCord at various times during the last fifty years. It is expected also that there will be a loan exhibit from the Dominion Archives consisting of working drawings of some of the older buildings of the province as well as photographs and sketches.

It is hoped that an outcome of the exhibition will be the publication of a portfolio of drawings and photographs of the older architecture of the province.

Joint Convention of the R.A.I.C. and O.A.A.

BEING THE SEVENTEENTH ANNUAL ASSEMBLY OF THE ROYAL ARCHITECTURAL INSTITUTE OF CANADA AND THE THIRTY-FIFTH ANNUAL MEETING OF THE ONTARIO ASSOCIATION OF ARCHITECTS, HELD AT THE ENGINEERS' CLUB, TORONTO, SEPTEMBER 4TH AND 5TH, 1924.

ADDRESS BY LEWIS H. JORDAN
President of the Royal Architectural Institute of Canada.

THERE are some items which I would like to touch on that it seems to me are of vital importance not only to the Institute but to the Profession, which is really what the Institute stands for—the Architectural Profession of Canada; and there are some matters in connection with it where I think we must call a spade a spade, look square in the face and deal with them from the exigencies of the necessity.

During the year we have instituted the JOURNAL. The R.A.I.C. now has a JOURNAL, and I think we all agree it has been most creditably inaugurated and put under way, and it is our first business, to do that which will keep it going. We will have a report later on, in the Committee Reports, dealing with the JOURNAL which will give us information upon which we can gauge the necessities of what will have to be done to make the JOURNAL of even more value to the profession.

It seems to me that this is one of the live movements made by the R.A.I.C., and is of the greatest possible interest to the profession; more than that, it is a move which will do a great deal toward keeping the R.A.I.C. together as an organization representing the profession in Canada.

Now it seems to me there are some other things that will be necessary to be done. There is an inclination—and I speak frankly—to hold the R. A. I. C. subordinate to the Provincial Associations, and to my mind that is fatal to the Institute. The R. A. I. C. should be considered as the superior body of the organized architects of the Dominion. It should not be considered just as a get-together organization, but it should do that for the profession which will make the individual architect recognize that it is the best source of advancing the profession that we have. It seems incredible that we do not recognize that a large, widespread organization is the best possible organization—certainly in massed effort is where results are to be obtained and not in divided efforts. We might as well say that each architect in his own office is the best way to get along, rather than by provincial organizations. If an organization is to be anything at all, it should be as wide and comprehensive as possible.

The first idea in the minds of those who brought the R.A.I.C. into existence must have been for mutual benefit, and I think most of us are inclined to feel that the R.A.I.C. is something to give us something, but we don't put enough emphasis, enough responsibility upon ourselves. We must realize that we have got to give some of our time and attention and interest to the R.A.I.C. in order that it will give something back to us. In this way we will have the spirit of united and co-operative effort.

Now there are things that the R.A.I.C. can do that it has not done yet. Of course it has been necessary first to become thoroughly stabilized as an organization, which I think we really are now.

Now what can we do that is going to make every Architect in Canada feel that the R.A.I.C. is worth while? We can't simply complain that the Architects do not take sufficient interest. Someone has to have enough initiative, make enough effort, to take that action which will make the R.A.I.C. do something for all the profession in Canada that will make it worth while.

Now there are throughout the continent, governments, universities and organizations carrying on extensive and intensive research work in connection with building materials and all those things which go into building construction. Hundreds of trained scientists are carrying on investigations in all these things which the architects should be in touch with all the time and which I doubt if the average practising office can give sufficient attention to to be in that touch. The R.A.I.C. could, however, institute a department which would be in touch with this research work and deliver to us constantly the results, conclusions and standards determined for these materials.

To operate such a department will cost money, but it will not cost each architect very much. What architect or architectural office, for instance, in the Dominion would not give, say $10 a year or $1 a month, to have placed before him weekly, daily or monthly, as occasion requires, the last minute results of standardized conclusions and research results obtained in some particular line or lines of building materials, so that we all as a whole, as a profession, know the best thing to do and the correct way to handle certain materials.

If every architect in the Dominion were getting through the operations of the R.A.I.C. a direct, educative benefit, would it not be a benefit that the profession would recognize, and would not the architects throughout the Dominion realize that the R. A. I. C. meant something to them?

We have had committees carrying on in this way and they have done very creditable work, but we cannot ask architects carrying on their practice to give the time necessary to carry on this work thoroughly. It seems to me that it will resolve itself into employing a trained technical secretary, who will devote his time to this research work, and deliver to the JOURNAL, so far as the space of the JOURNAL permits, or give to us by bulletin when necessary the last possible results and conclusions reached in connection with building materials.

There is another benefit to that too: and that is when the public realizes that the profession as a whole is a live one and that its members are kept in close touch with modern building materials, they will know that their best source of information, when they want to build, is the Architect.

President's Address (Continued)

Now all this hinges around that word "Service." If we expect people to pay us for our service, we have to serve them first and we have first to have the service to give.

Now, gentlemen, in a few words, that is my idea of the possibilities of the R.A.I.C. and what it should do, and one step in the direction of the thing which will wipe off for all time the question of whether our fees should be $2 or $3 or $5 and demonstrate what the R.A.I.C. is doing. We are here, the organization of all the architects in Canada: why can't they do all this and do it just as well as not, and do it practically over night, if we simply establish the principle? The details are easily worked out.

Report of the Practise Committee

BY J. H. C. RUSSELL
Manitoba Association of Architects—Chairman.

The questions outlined in connection with the work of this committee are the everyday problems of the Architect, and each one has his own way of working them out.

Our Architectural Journals have contributed many interesting articles, in the past two or more years, on the various phases of the Architect's problem, which cover the subject matter of this committee's work far better than can be done in the short outline that follows.

We all have our own impressions as to what we may think best, but it is a wise man who is not too sure of his own opinion.

We deeply regret to say that this report does not represent the deliberations of the full committee, through no fault of theirs.

ECONOMICS AS RELATED TO THE PRACTICE OF ARCHITECTURE

Owing to the economic conditions prevailing at the present time, construction costs are exercising a strong influence on architecture and this presents a problem to the Architect about as difficult as the architectural features of his work. Generally speaking, the client's problem and the limit of cost, precludes to a great extent the use of ornament and elaborate detail, therefore a wise correlating of the ordinary materials to be used plays a larger part in the design, consequently it is of the greatest importance that the full beauty of these be brought out. To obtain this end the Architect must be able to select the material that will give the best effect, relative to the limit of cost involved, and do this successfully from small samples, knowing what the result will be in the finished work.

It is also important that the Architect has a knowledge of sound business practice and economics. Without this information he is not in the best position to interpret or carry out successfully the problem of his client, who besides asking for the artistic side demands structural efficiency, and requires both of these essentials in the terms of dollars and cents. Too often have fine architecture and practicability clashed, to the detriment of both, and a debit mark against the designer.

New materials and new methods of construction, some of them being of a high standard, are continually being offered to the building public, and the Architect should have the necessary knowledge of these different subjects to be in a position to recognize the value and take advantage of these opportunities to secure the best material to obtain the effect he wishes to produce.

METHODS OF DEVELOPMENT OF PRACTICE AND IMPROVEMENTS OF OFFICE METHODS

These two headings are bound together, as expansion of practice will demand greater office efficiency, while on the other hand the latter has a great bearing on the former.

Every architect wishes to develop his practice, and each individual has his own method of trying to reach that goal. Our question is what are some of the necessary qualifications to attain that end.

It has often been stated that the man who is following a profession, has a better education, and should therefore have higher ethical standards, and nobler and loftier ambitions, than those in other walks of life. If this is true there is no profession to which it should be more applicable than that of architecture. We should use our profession as an avenue of service to the public. Each of us is known to the public by the work we are actively engaged in, and as we claim to be creators and appeal to the esthetic nature we are supposed to place our services to our clients and our community above mere monetary gain. Are we doing this?

The more an Architect may know about general business practice in relation to any building project, the more satisfactory his services will prove to his client.

Great care should be taken in the preparation of all plans, specifications and details, no matter whether the project is large or small. Carefulness will ensure practicability and be a great help in eliminating misunderstandings between client, contractor and architect, and will also greatly assist the client in securing his loan. It is a well established fact that mortgage companies will loan more freely and liberally on the work of certain Architects whom they know have the ability to design and carry out a building project, feeling confident it has been well constructed and represents sound security for their investment. There is no reason why this should not apply to the profession as a whole; it depends entirely on the individual member.

The Architect should have a fund of specialized knowledge covering all kinds and types of buildings, charts and data regarding the cost of different classes of buildings in relation to the area, cubic contents, etc., all of which contribute towards better office methods, which in turn gain the confidence of those who seek the advice of the Architect. This develops practice and helps to establish the profession in a better position before the eyes of the general public.

Address by Mr. Stanley T. J. Fryer

President, Ontario Association of Architects.

SOME of the problems confronting us will require much earnest thought, and yes, self-sacrifice, before they can be successfully solved. Nor can we afford to side-step them.

Legislation for protection of the word "Architect" is something we have been endeavouring to get for years. The profession of Architecture should be safeguarded to the public to the extent that one could only practise when they had shown by examination that they were qualified, up to a standard set by the Provincial Government. It *is* so in the other provinces. The Provincial Government through the University undertakes the training of the youth of the province in Architecture and sets a University degree as the standard of qualification—then by a negative policy circumscribes to a large extent their field of practise by letting any Tom, Dick or Harry call himself an Architect though he has had no training in Planning or Design—one result being the abortions in bricks and mortar that one sees all too frequently scattered about the province, the work of these untrained, unqualified practitioners.

How are we to improve this condition of affairs? Concerted effort and determination by all members all the time will, in time, get some results.

The Prime Minister was interviewed early in the year shortly after his government came into office. We were received courteously but non-commitally. Since then copies of a proposed Bill have been forwarded to all the members of our Association asking for criticisms and suggestions. We must also find out if our local Member of the Legislature has any, thereby developing a concerted action on Members of the Legislature.

To show what can be done when there is a real desire to help the Association and profession, when the Council sent out the circular letter calling attention to the fact that no Architect had been appointed to the Committee re Sir Wilfrid Laurier Memorial in Ottawa—a member of this Association from the eastern part of the province personally saw, and wrote to his local M.P., Senator and an important member of the Cabinet, receiving satisfactory replies from all three. I say satisfactory because they were more than mere perfunctory acknowledgments. I am satisfied that his efforts aided materially in the appointing finally of one of our outstanding Architects to that Committee. It is going to require much effort to attain success in this matter.

Disraeli said "The secret of success is constancy to purpose"—not for a day—but for several years most likely. Let us be constant.

Another problem facing us is the vexed one of Competition in professional practice—the submitting of plans gratis against other competitors, and before committees of laymen who know little or nothing of design or planning—this I take it is competition in its commercial sense—but not a competition.

Do we not practise architecture because we delight in it—surely no one among us will be so foolish as to say he took up the practice of architecture primarily with the idea of making money. To say that is to advertise oneself as having poor business brains, for the mere accumulating of money can be done so much more readily in almost any other way.

Therefore it seems to me the primary object in taking up the ancient and honoured profession of Architecture is from an inward craving for expression—an instinct of the artist—and this peddling of plans, of one's creation, before those who are not able to judge of their worth—and to give you an idea of how little they know whereof they speak, let me cite the remarks of one member of the Collingwood Board of Education to the effect that "they only wanted line drawings" and an assessor would not judge line drawings—this peddling of plans is nothing more than a prostitution of one's higher ideals. It is bound to be accompanied by a loss of one's self respect. Success in Architecture in the long run does not lie that way. Someone has said it is better to have failed in the high aims than vulgarly to succeed in the low. And there is a great deal of truth in that. Art is not for the end of getting riches. Only become a greater and greater artist, the rest will come of itself. Until the Architect respects his profession and its ethics, he cannot expect the general public to do so. It is entirely up to us to put the profession on its rightful high plane. We have a tremendous opportunity and responsibility in a growing country such as Canada. In this "nearest art" we practise, we unconsciously mould the artistic sense of the man in the street, for good or bad. Commercialized Architecture looks what it is, and the less said about it the better. The question of ethics enters largely into this problem of competition. There seems some doubt as to what constitutes professional ethics; the suggestion has been made that we adopt a printed code such as the professional Engineers adopted last year. The American Institute of Architects' Code might do as a guide. I commend the suggestion to your serious consideration, or the consideration of the incoming Council.

During the first half of the year the practice of holding Council meetings in the large centres where Chapters are was continued, and in regard to this I might say that owing to the Association still feeling the financial loss through the Home Bank failure, and difficulty in getting dues in, it was decided toward the middle of the year to economise on expenses by holding meetings in Toronto—of Toronto and Hamilton members of Council only—unless matters of importance demanding the presence of full Council came up. I still feel though that the visits of Council to the Chapter centres were justified in every way and should not be entirely dropped. I think the Chapters themselves will bear me out in that.

The Committee on Small Houses was unable to complete its work, owing to the fact that members did not take sufficient interest and where they did, in some cases did not consider the important question of cost—they lost sight of the fact that what was wanted were plans of small houses.

This work will be carried on next year, and I would point out that while there will be little opportunity for personal gain we should make an effort, for it is in the nature of concerted service to that element of the public who cannot afford the ordinary services of an architect—but because they are no

Address by President, O.A.A. (Continued)

inconsiderable body, create school conditions, church conditions, etc.

There is a tendency on the part of some to ask: "What is the O.A.A. doing for its members?" To this I think one might reply with a counter query: "What are you doing for the Association?"

Personally I have always felt it a distinct privilege to have been admitted to membership in the Ontario Association of Architects and through it to membership in the R.A.I.C., and I am satisfied to answer my query as to what the O.A.A. is doing for me by saying it made me a conferee with all the Architects in Canada—and gave me what they represent in my chosen profession. At the same time it unconsciously imposed on me certain moral obligations, not laid down in any rules, but nevertheless obligations, to endeavour to practise in such a way as not to bring discredit on the Association or, in other words, on you.

As an indication of what the O.A.A. is doing for the coming Architect, Professor C. H. C. Wright, of the University of Toronto, advises us that the award of the Association medals has been a great stimulus to the students of the Toronto University in Architecture.

There was also a splendid race this past session for the O.A.A. scholarship. There is no doubt but that this scholarship has been of the greatest assistance in the matter of Architectural Education.

Something in the nature of an experiment has been tried out this year in the electing of a member of Council living outside Toronto to the office of President—may I be permitted to say that after a year's experience I question the success of the experiment. In theory the principle seems a good one—having a broadening tendency—but I am doubtful as to whether the Association has yet developed to the point where it will work satisfactorily. Matters of some importance crop up from time to time that do not necessarily require a full Council meeting to take action on, still they require the consideration of some members of Council and the secretary. An out of town President finds it slow and rather cumbersome arranging things by letter or telephone. I realize this is a matter that rests almost entirely with the Council, but mention it since it has in my opinion been more or less of an experiment.

In closing, I want to say that with all the responsibilities of the high office it has been my great privilege to hold during the year, it has yet been one of the great delights of my life. To know better the men sitting round the Council Board—to see the whole-hearted and high-minded way in which they have given of their time and experience in service to the profession, to gain from them a finer idea of what the Association can and should be to the profession of Architecture and the community at large—an Association of service through service.

Death of the King's Architect

MR. ALFRED YOUNG NUTT, M.V.O., who was resident architect at Windsor Castle for many years, died suddenly at his house at Slough on July 23rd.

Mr. Nutt was born, one of a family of 15, in the rectory of Borrough-on-the-Hill, Leicestershire, in 1847. In 1867 he was appointed by Lord John Manners (who was then First Commissioner of Works) draughtsman to the Office of Works at Windsor Castle; he was next appointed Chapter surveyor, and some years later resident architect at the Castle. He was also architect in charge of the Royal mausoleums. Mr. Nutt carried out many notable improvements and alterations at Windsor. The annexes to Westminster Abbey at the Coronation of King George and Queen Mary, as well as King Edward and Queen Alexandra, were designed by him and erected under his superintendence. On another occasion he was asked to make a temporary flight of steps leading from the East Terrace at Windsor Castle. This was done in plaster, and was so entirely in harmony with the surroundings that it was difficult to distinguish the difference and at the express wish of King Edward VII. the steps were made permanent. The laying down of the turf in the Grand Quadrangle, the extensive alterations in the East Terrace gardens at Windsor Castle, the improvements in the Round Tower moat gardens, and the instalment of the electric light throughout the castle are some of the important works which have been under the direction of the King's architect. In addition to this, Mr. Nutt superintended the work at St. George's and Albert Memorial Chapels, and the Royal vaults underneath. When the entrance door of the latter is opened a number of electric lights are switched on which light up the interior of the huge vaults. He retired from the Office of Works in 1912.

Mr. Nutt was also an artist, and executed many illuminated addresses. He was well known to all the members of the Royal Family, and his knowledge of Windsor Castle from top to bottom, and down to its foundations, was probably unrivalled. Mr. Nutt and his wife (nee Mary George) celebrated their golden wedding on June 23, 1923. There are three daughters of the marriage.

Poetry of Architecture

BY MR. S. LEWIS MILLIGAN

From a paper read before the Joint Convention of the Royal Architectural Institute of Canada and the Ontario Association of Architects.

I HAVE no qualifications to talk on architecture; I might have some little qualification to talk upon the architecture of poetry rather than the poetry of architecture.

Architecture is the basis of all art; without it there would be no art at all. Building is the most primitive occupation of man; it began with an instinct of self-preservation, or protection. Nature herself seems to have specially provided primitive man with caves to dwell in, but, as the race multiplied, there were not enough caves to go 'round, and artificial caves had to be made with more or less elaborate or ingenious entrances and apartments.

One morning in those cave-city days a brilliant idea struck some young barbarian who wanted to take to himself a wife, but had no cave or facilities for making one. "Why not build a cave in the open!" he exclaimed. "Here are some stones, there is some mud, and everywhere there are trees, rushes and grass." So he proceeded to put his idea into effect, and lo! we have the first building.

Necessity was therefore the mother of architecture. The first architect was a builder, and he had to obey, first, the urgent necessity of providing himself with a place of abode, and then he had to obey the necessities of nature in the construction of his dwelling. How many huts must have tumbled in on their tenants long before the span and the arch were hit upon!

Even the styles and decorations of architecture were born out of the necessities of primitive building. We know that classical Greek architecture was not an original creation, but merely an artistic rendering of utilitarian and mundane forms of structure—an idealization of barbaric huts. If Canadian builders in the early days had known nothing of the architecture of the old world they might have developed a new style by idealizing the log cabins, or even the Indian tent, in brick, stone or cement. The majestic dome, we are told, originated in the mud covering of granaries—why should we not have a poetical rendering of a root-cellar, a barn, or a silo? Possibly we have some such artistic development from these primitive structures in the bungalow; and the architect may have had a tent in mind when he designed those houses with steep roofs.

THE SOUL OF A NATION

"Architecture mirrors the soul of a nation," says Prof. Lethaby, of Liverpool University, I think. It would be interesting to ask: How does the soul of Canada appear in this mirror of architecture? It is difficult to answer this question because we cannot tell whether these fine buildings of ours are really reflecting the soul of Canada or merely the souls of Greece, Rome and Mediaeval Europe. We are fond of producing an indigenous Canadian literature, or Canadian art, but is such a thing possible? We not only owe so much to the past, but we are the very creatures of all that has gone before.

It might be simpler to ask: Has the soul of Canada found expression in architecture? If we were to enumerate the various types among the finer buildings that are to them as evidence of the soul of Canada, it might prove a versatility in taste on the part of our people, but I doubt if it would present any evidence of a national soul. The real soul of Canada, it seems to me, does not express itself in the finer buildings of our land, but in those natural and necessary structures which have grown out of the life of our people. Many of our fine buildings in the cities were the result of architectural competitions, and they were chosen for the most party by city councils and boards of education, which are not usually composed of poets or artists.

If one might dare to breathe a word about our belated Union Station, I would venture to suggest that the style of that building scarcely expresses the soul of Canadian enterprise. It is more suitable, it seems to me, for a museum or a mausoleum; certainly not for a gateway of commerce and travel. The Temple of Neptune, in the dead city of Paestum, is said to give the impression of "repose and eternal sleep"—and in this respect our new Union Station may be appropriate in style, for it has expressed the inertia of the powers that be. Could not something be done to enliven the severe and heavy front of this building? I might be a little amateurish in suggesting that a little carving on the pillars, or the insertion of panels in the walls, or a monument to Enterprise, or even an addition of several extra stories finished off with a dome or adaptation of some lighter and more imaginative style, might save the building from its present morgue-like appearance. A great opportunity has been lost to Canadian architecture in this instance, for there is great scope for invention in the designing of a modern railway station, when we regard it as the portal of enterprise and pleasure. What a poem could have been written in stone on the waterfront of this great city—a poem that would have inspired our citizens and the visitors from afar arriving in Toronto by boat or rail!

How different is the railroad station in Ottawa—where the Chateau Laurier is—the Union Station. I think one of the finest pieces of poetry that I have seen in stone in Canada is the Chateau Laurier at Ottawa. It is a fitting monument to a picturesque personality who did much to awaken a national soul in Canada—whatever one may think of his politics. The Parliament Buildings in the Federal capital do not impress one after seeing the Houses of Parliament in London, but it is a noble pile, and one that expresses our highest national ideals and aspirations.

LYRIC ARCHITECTURE

Gothic architecture is rightly regarded as the highest of all in spiritual or poetical expression. There is profound poetry in the Temple of Neptune, but it is Pagan, fatalistic, and didactic. There is rhythm in it, but it is the rhythm of the sea beating on a barren shore. It is the poetry of Stonehenge. The Grecian and Roman styles may be

Poetry of Architecture (Continued)

called the epic or blank verse of architecture; while the Gothic is lyrical in expression. It seems to me that the Gothic style lends itself to greater variation and development than any of the others. The Byzantians went as far as is possible in decorating the severe Greek forms, and some people think that they degenerated it in the process, but I would like to see some new experiments in a combination of Byzantian and Arabesque forms in Canada.

There is something semi-Oriental about our Canadian atmosphere in the summer. I was particularly struck with this as I sailed one day from Toronto to Grimsby and looked upon the fine grouping of domed buildings in the National Exhibition grounds. To me, the Bathing Pavilion at Sunnyside is very appropriate and effective in style; it conveys a poetical idea in its poise, purpose and setting. I would not care to see Arabesque or domed buildings all over Toronto, but the mobility of this style of architecture comes as a relief after the fixed perpendicular and horizontal lines of the skyscraper.

NO POETRY IN SKYSCRAPERS

As poetical expressions, skyscrapers are to me abominations. As architecture they are monstrosities, because they appear to be what they are not. They are, in reality, steel towers; the outer structural form being merely camouflage and veneer. Some of them, especially those that are finished at the top with a graduation of towers or small domes, are greatly relieved; but no skyscraper, in my opinion, is poetical, except at a distance—the greater the distance the better. One of the best views of Toronto that I know is from Broadview Avenue, looking across the Don Valley. From that point of view the grouping of the skyscrapers in conjunction with the spire of St. James' Cathedral, Metropolitan Church and the City Hall tower, is rather impressive, especially in the early morning. Equally, if not more impressive, is the view of Toronto at dawn from Lake Ontario.

Architecture, to be poetical, should impress one with not only its beauty of structure, but its truth in poise, proportion and purpose. The Leaning Tower of Pisa is a freak, but not more so than some of the perpendicular skyscrapers of American cities.

How prosaic are these in comparison with some of the old world poems in stone! I can never forget my first sight of St. Paul's Cathedral as I walked down Fleet Street and looked up Ludgate Hill. That majestic temple, with its sphere-like dome, rose up like a vision of some ethereal fane. At the first glance it seemed like a mirage, lifted above the earth. The impression was one of stellar pose and terrestrial stability. One gets the same impression from Turner's paintings of Venice, the ethereal and insubstantial effect being heightened by the fact that the buildings rise up out of the water and are apparently baseless.

This etherealization of stone is, after all, what constitutes the poetry of architecture. Poetry, in whatever form it is expressed, should lift material and mundane things into the ideal. One of the best examples of this that I know of in painting is a picture by Sir Francis Leighton of Perseus mounted on Pegasus. In this picture the artist has idealized a white Percheron stallion and poised it in mid-air. It is a thing to wonder at, for one does not feel that the horse is out of its element. Anyone but a poet would have spoilt the whole thing with some freakish touch of realism in either the animal or the setting.

If I might pause here just to read a sonnet that I wrote in the Rockies last year when I was passing through. It struck me very much, in going across Canada, and particularly in British Columbia, that the scenery was very like something of the paintings of Sir Francis Leighton, and I wondered if he was ever through that country, and this sonnet I wrote as a sort of reminiscence of a picture which I had in the Old Country by Sir Francis. This is just an impression—I call it "Hellas in the Rockies." It is to appear in the GRAPHIC, if it has not already done so, in the Old Country.

Mr. Milligan then quoted his sonnet as follows:

Dawn breaks along the congregated hills,
In silver sheen through labouring clouds and low,
While through the rifts a Grecian glory thrills,—
Far glistening peaks of everlasting snow!
There mighty Zeus once sat aloof, alone,
Ruling the nether world in peerless state;
Unchallenged from his high Olympian throne
Flinging abroad his thunderbolts of fate!
It was by yonder lone and leaden shore
Medusa held Andromeda the fair,
Till valiant Perseus split the gorgon's gore,
And Pegasus majestic trod the air,
Who with his hoof struck Helicon a blow
Which caused the lyric Hippocrene to flow!

The supreme test of poetry and of architecture is truth and beauty. A house need not be large or classical in form to be beautiful, but it must conform to certain laws of nature and create a sense of admiration or wonder in the mind and heart of the beholder. A humble thatched cottage, or a group of farm buildings in the midst of rolling acres of golden grain and green corn, stirs within us the same thrill of admiration and exaltation that we feel when we read or hear read a fine poem.

TRUTH AND BEAUTY

The soul of Canada as a nation cannot be said to have definitely revealed itself in her architecture; but this soul is so complex that it would be difficult to give it concrete expression. The word concrete is here used figuratively—but it might be said that while Canada may not yet have given concrete expression of her general soul, Canadian architecture is every day expressing itself in concrete! There is no particular objection, from the architectural or even the poetical point of view, to concrete. This form of construction was common in old Rome, I believe. It is far more preferable than galvanized iron. My poetic soul was offended in Quebec Province the other day, just outside of Murray Bay, when, after admiring from a distance a white church with a heaven-pointing spire, I approached it and discovered a sheet-iron structure. I had a similar experience in Toronto while wandering through the cloisters of a fine new Gothic college building. I tapped on one of the pillars with my knuckles and it sounded hollow! I wondered what they would

Poetry of Architecture (Continued)

be like in a hundred years from now. The highest form of beauty is truth, and the higher the expression of truth the more beautiful it becomes. Our architects might well learn by heart those words of Keats:

"Beauty is truth, truth beauty; that is all
We know or need to know."

Now the Dominion of Canada being a confederation of provinces it would seem to me that the best and most natural line of development in architecture would be along provincial lines. The Maritime Provinces, Quebec, Ontario, the Prairies and British Columbia are not only separated by great distances, but they have each their own peculiar souls to express. At the same time there should be a federal as well as a provincial soul or consciousness in Canadian art and literature; and every Canadian artist in whatever branch, who aspires to national influence and recognition, should know the life and the geography of Canada from coast to coast. No artist or writer has graduated as a Canadian who has not travelled from Nova Scotia to British Columbia. I travelled last year for the first time over the Prairies, through the Rockies, and on to Victoria. It was to me an amazing pilgrimage, and no Canadian can afford to die until he has done the trip.

Canadian architects might well make a special study of the Prairies and the Rockies, if only as a study in contrasts. Those gigantic mountains are of nature's own building, the work of the Great Architect of the universe.

In going through the Rockies last year I was particularly struck with the shapes of the tops of some of those mountains, and I imagine if I were an architect or an artist I could have got some new designs for buildings from Nature, particularly in the foliage in the trees on the sides of some of those mountains. It was passing through one deep valley there I was entranced with the sight of the spruce trees rooted into the face of a great high cliff, and they rose up, there, tier after tier, of pointed spruce trees, just like Gothic architecture, into the sky. It looked like a fantastic cathedral. I wrote a poem on the Rockies at that time and this was my impression. You will excuse my reading my own stuff:

Look, where the level Prairies leap
In godlike grandeur to the skies!
Holding aloft earth's treasures deep
To man's amazed and curious eyes!

Those heights that catch the shafts of dawn,
And dally with the sun's last ray,
Arose when waking Earth did yawn—
How many million years away?

Pine-bearded Titans crowned with snow,
That silent with the clouds commune,
What age-long secrets do ye know,
And whisper to the neighbour Moon?

When Vulcan pounded in his forge,
And Thor held heaven and earth in thrall,
When glaciers gouged yon roaring gorge,
Ye stood and looked upon it all!

And now, how tranquil is the scene!
Where turbulence did once abound,
Fair Flora spreads her vales serene,
And all is Sabbath peace profound.

It would be a mistake to try to cultivate uniformity in architecture throughout Canada. Each province has its own peculiar contribution to make and the style should conform to the environment. The Maritime Provinces should reflect the rugged faith and culture of its people, and the rigor of its climate in a strong Norman style, lightened by a touch of Gothic. Quebec could readily give expression to the soul of its people in French Gothic, strengthened by a touch of Romanesque.

Ontario might well develop a style of its own, as expressive of the pioneer and progressive characteristics of the people and the extremes of climate. Perhaps the variety that one finds in the styles of architecture in Ontario is expressive of that freedom and venturesomeness which characterizes the people of this province. I would suggest a combination of Gothic, Italian and Arabic for Ontario.

The Prairies, it seems to me, call for massiveness and height in all public buildings, in order to offset the absence of mountains. The lack of mountains must have been felt by the Egyptians when they built the pyramids, which are artificial hills. If I were a landscape-architect for the Prairie Provinces, I would stud those plains with high and massive towers or buildings of various styles, so that the traveller or the inhabitant would never be out of sight of a striking and inspiring human landmark which would catch the first gleam of dawn and hold the last ray of sunset. These, I think, might be illuminated at night. Human beings are apt to keep their eyes and their hearts too close to the earth when they have nothing to look up to. Those words of the Psalmist were the natural cry of the human soul: "I will lift mine eyes unto the hills, from whence cometh my help." If we can lift men's eyes up to a beautiful structure their gaze will wander to the stars.

This puts me in mind of something I heard on a train last year. One woman was saying: "I like the Prairies because you can see so far," and her companion, another woman, said: "Yes, and see so little." I think there is something in that. There is a lesson in that for our architects, I think. It would be a fine thing to have those prairie towers that would stand up there as landmarks to the traveller and to the people. They need something to look up to.

There is a friend here from Winnipeg who might be interested in some verses that I wrote on Winnipeg. I was challenged to write a poem on Winnipeg when I went through there last year, and it has taken me a year to write it. I call it "Queen of the North":

We sped at dawn, in the ringing train,
O'er miles of furrowed prairie plain,
When lo! as from a scroll unfurled,
Away on the edge of the wheeling world,
The Queen of the North arose to view!

Poetry of Architecture (Continued)

All wonder-eyed we gazed, nor knew
Whether we woke, or slept and dreamed;
That prairie-isle like a vision seemed,
Such as appeared to the prophet's eyes
Of a City descending from the skies.

Winnipeg! how shall I sing of thee?
A port far inland from the sea,
Whose wharves of gleaming steel extend
East and West, and whose garners send
Life-giving streams of golden grain
To myriads beyond the double main!

Hail! out-post City, uplifted high
On the crest of a continent, where the sky
O'er-canopies all with a perfect dome;
Where the home-forsaking have made a home
A-near the silences of the Pole—
Hail! City of the untrammelled Soul,
Fronting the future with rapt amaze,
And daring God's free and untrodden ways!

British Columbia, on the other hand, should be a land of pointed Gothic and delicate Grecian architecture. Large domes would look rather foolish against those snow-capped heights; whereas delicate spires or clean-cut Corinthian masonry would stand out in contrast to the overpowering massiveness of the mountain background.

In this rather hurried survey of the Dominion one could not do justice to the subject in hand, but I throw out these reflections as suggestions from a tyro in architecture. It has been the habit of my life to try and see poetry in everything, and to give rhymthmical verbal expression to what I see. This is the vocation of all artists. The first architect was a poet in mud. The architect of to-day is a poet in stone, brick, steel and concrete. His task is to discover the rhythm in those lines and curves which are obedient to the basic laws of nature and to present these in uniform and beautiful designs.

All poetry, in whatever form, is the expression of spiritual law and beauty in nature and in human life, which finds response in our hearts and minds. It is the symbolization in natural forms of spiritual and immortal realities. Coleridge must have had this thought in mind when he wrote:

"For all that meets the bodily sense I deem
Symbolical, one mighty alphabet
For infant minds; and we in this low world,
Placed with our backs to bright reality
That we may learn with young unwounded ken
The substance from its shadow."

Memorandum of the Collection of Canadian Architecture Examples

EXHIBITED AT THE ROYAL INSTITUTE OF BRITISH ARCHITECTS AND AT THE BRITISH EMPIRE EXHIBITION IN 1924.

BY PERCY P. NOBBS
President of Province of Quebec Association of Architects.

FINDING myself engaged in the preparation of a paper on "Architecture in Canada" to be read before the Royal Institute of British Architects in London last January, in connection with which I was making a representative collection of over a hundred examples, illustrated by photographic enlargements, it occured to me that this might serve as our exhibition at the British Empire Exhibition. At the instance of the Royal Architectural Institute of Canada the Trustees of the National Gallery very kindly put funds at my disposal for the framing and mounting of the modern examples which found their way to the Exhibition of Empire Architecture under R.I.B.A. auspices, and were favourably commented on, both as a homogeneous exhibit and on account of the merits of the examples selected.

The older work, covering the English and French traditions down to 1900, was displayed in the Canadian Building, the cost of framing and glazing being borne by the Canadian Exhibition authorities, who also issued a reprint of the paper read before the R.I.B.A., with a limited number of cuts from the collection.

The Royal Institute of British Architects also had a set of slides prepared at their expense, and these were handed over to the Architectural Association School, London, after use in connection with the paper read.

I am under deep obligation to the many Canadian architects who supported me by presenting enlarged photographs of what was asked of them. It will be appropriate to keep these together now they are mounted and framed, and a place will be found for them in the Department of Architecture at McGill.

In spite of my best endeavours to get correct ascriptions and dating, several errors occurred, for which apology is due.

The Province of Quebec Association of Architects is taking steps to obtain a voluntary annual return from its members, containing a statement of the more important works designed by them each year, with a note of their location; also a list of works to be ascribed to them up to date. Such archives will be found invaluable to any in future years who may desire to investigate the trend of influence and taste of this generation, and parallel action by other provincial associations is suggested.

Building Height Limitation

BY LIEUT.-COL. W. N. MOORHOUSE, D.S.O.
Chairman, Toronto Chapter, O.A.A.

An Address given before the Joint Convention of the Royal Architectural Institute of Canada and the Ontario Association of Architects.

WHEN I got the program of the Institute I noticed that it stated that there was to be a discussion of Building Height Limitation by a well known authority. Now perhaps it said "one who is well known to the authorities." In either case I think that is a pretty serious charge, and I plead 'Not Guilty.'

We are liable to become provincial in our ideas, and it is a good thing, once a year, at our Conventions, to have some outside man come along and tread on our pet corns with impunity, as the process of toe-treading is much more graciously submitted to from a visitor than from a local man.

However, the doubtful honor of introducing this subject having been conferred upon me on very short notice, I immediately thought, if the Association could not get an authority on the subject I would see what I could do about finding an authority myself, and I at once sought advice from an eminent historian as to the origin of the skyscraper. The learned professor I mention holds such a high position in the science or art of Mendacious History, that the Government has given him a permanent residence in the Laboratories on Queen Street west, at the expense of the country. He sends me this very interesting comment, which, with your permission, I shall now read.

Some of you, of a doubting nature, may remain unconvinced, but, knowing the professor as I do, I can truthfully and honestly vouch for the mendacity of his report:

"The earliest mention in history of trouble regarding skyscrapers occurs in an ancient and very interesting Babylonian document, translated with great difficulty, but now unfortunately lost to the world.

"In this document, now, alas, lost—a detailed account with plans and specifications appended, is given of the Tower of Babylon, popularly termed Babel, which was constructed some time during the year B.C. in one of the most congested downtown districts of that great commercial metropolis.

"This tower, or to use the literal translation, 'Firmament Scratcher,' apparently caused trouble, as the document, now, alas, destroyed, relates.

"There was labour unrest among the King's slaves, as the architect forgot to include elevators, and they had to carry the royal litter—it doesn't state how many were in the litter—once per day, up and down a continually increasing number of winding stairs, as the job proceeded. It is recorded that they threatened to down tools on the 4963rd step, which, the historian suggests, would have caused the fall of the Babylonian Dynasty.

"The people, too, found that there arose a great congestion of chariots in the streets, so a deputation approached the King and addressed him, 'Oh, King, live forever, and then some!', and stated their case. But the King referred them to the City Council, but they said: 'Look at all the employment we are causing thereby', and the deputation was thrown out of the Megaron on their necks. (Lit. 'on their tails')—an evolutionary term.

"Then Jehovah (referred to in the document as Adonai) took a hand in the proceedings, and struck the tower with a bolt of lightning, and the Babylonian Fire Brigade found their streams wouldn't reach higher than the 7th storey.

"He also caused such a confusion of tongues in the City Council that speech was vain, and therefore, their usefulness ended, they lost their jobs.

"In these latter days, however, the professor states, Jehovah takes little or no interest in civic affairs, and there is also such a confusion of tongues in most City Councils, that a little Babel more or less would pass un-noticed."

This, continued Col. Moorhouse, is very interesting, if true, and history has a habit of repeating itself.

I propose now to state briefly the pros and cons of the argument, with a few, very few, comments thereon.

I would point out that these arguments do not necessarily hold in the case of an isolated building, but the resulting condition must be considered, when the whole district referred to is occupied by buildings to the full height allowed.

PROPERTY RIGHTS is really the strongest argument in favor of a man being allowed to build as he wishes. That is all very well, but I do not suppose there is any city in which property rights are more respected than in London, England, where they have a building height limitation of 80 feet and where the Bush Terminal and other American firms found that all their money and influence would not persuade the authorities to permit the erection of taller buildings.

Under Property Rights comes the question of Finance—that is, the owner must have a proper return from his investment in a building. Now arguments on this point come under the category of Statistics, which are not always dependable for this reason: that it may be possible to build a two-storey building in a certain locality, which will give a better return than a 20-storey building. There are many instances where ground floor rentals are the main source of profit, and the upper floors do little more than pay expenses.

There are certain downtown buildings in New York where originally the ground floor was let out for retail purposes. On account of the increasing congestion in the area the fashionable retail section has been moved three times, and now is away out beyond 42nd Street, and these buildings which originally paid large returns on account of large ground floor rentals are now operating at a meagre profit, or a deficit.

I would also like to point out to you that any of you who wish to consult the reports of the Associa-

Building Height Limitation (Continued)

tion of Building Owners and Managers will find that an office building is not a paying proposition in most cases. You will find that the returns vary over and above the carrying charges, etc., from about 1%, in the case of a building like the Woolworth Building, upwards, rarely exceeding 5%. Even then a large margin is often written off to advertising.

The next point I mention is CENTRALIZATION OF BUSINESS. That is another point which I am not going to discuss at length, but it is open to question, whether it is a good thing for us to concentrate all our business in one particular area.

The next point is PRECEDENT—if you give a man a right to build a 20-storey building on a certain lot, why should not the other fellow have the same right? That is, the old story of visiting the sins of the City Fathers on the children unto the 3rd and 4th generation. In other words, because our forefathers had a pail of whiskey at their logging bees, we should each of us be permitted to operate a private still. Now, I don't think that is a good argument if the benefit of the community is in question.

The next point I have here is one of ADVERTISING VALUE. I think it is much over-rated. Whether the Woolworth Building, with its tremendous expense and small return, is a good advertising proposition the Woolworth people will be able to tell you, but I think possibly they might be able to expend their advertising appropriation in other ways to better advantage.

You will note that all these are points which are brought forward in the interest of the individual.

Now I will review briefly the points against the lack of limitation in the height of buildings:

The first is that IT AFFECTS THE HEALTH OF THE PUBLIC BY DIMINISHING THE LIGHT AND AIR SUPPLY. Other resultant conditions also affect the public health, namely, where air shafts and the narrow canyons of the streets cause tremendous draughts which carry and disseminate dust. It has also been found by practical experiment that for this same reason these so-called ventilating shafts are kept closed in many cases throughout the winter so that the offices have no ventilation at all.

The second point: THAT IT AFFECTS THE SAFETY OF THE PUBLIC BY INCREASING RISK OF LIFE FROM FIRE AND PANIC AND INDIRECTLY BY STREET CONGESTION. There are all sorts of data on that subject which can be found and I won't discuss it at any length. It is obvious that as we go further up, danger to life from fire and panic increases. Of course you have to know and realize this point, that the fact that the building is built of fireproof construction does not mean it is proof against fire—they have had fires in fireproof buildings in New York and other cities in the States, in which temperatures have run sufficiently high to fuse many so-called fireproof materials.

Of course the difficulty is not so much that there is danger to life from fire as from the resulting panic. The great height of the buildings and the narrow and congested streets also make it very difficult for the fire brigade to operate effectively.

The third is THAT IT CAUSES AN UNFAIR INEQUALITY OF LAND VALUES, MAKES EQUITABLE ASSESSMENT DIFFICULT AND IN THE LONG RUN LOWERS THE AVERAGE VALUE OF REAL ESTATE.

We have that point right here in the City of Toronto. You can get on top of the Royal Bank Building; you can take a baseball and throw it in two or three directions and you will find that the baseball will land on a piece of property which is valued at less than half the market value of the land on which the Royal Bank Building stands.

The next point is THAT IT PREVENTS THE STEADY, EVEN GROWTH OF A CITY AND IMPEDES REPLACEMENT OF OBSOLETE AND OBSOLESCENT BUILDINGS.

Now it is contended that if we adhered to a reasonable building height limitation, assuming the law of supply and demand to hold, that there would be two 10-storey buildings built, to the equivalent of each 20-storey building. Up Yonge Street, between Queen and College and up to Bloor you will find a tremendous number of ancient, obsolete buildings that should be torn down, and the whole place rebuilt; in fact so much so that an American tourist recently called downtown Toronto "A city with village streets." If we had a proper building height limitation a lot of those obsolete buildings would be torn down and replaced by modern structures, which unfortunately are now being crowded into the congested area farther south.

Fifth point: IT INCREASES TRAFFIC CONGESTION AND THE PROBLEM OF TRANSPORTATION. That is obvious. If you have a thousand people per hour coming out of a skyscraper, say between 5 and 6 p.m., and multiply that by 10 or 20 in a block, you will have a large crowd to handle. This is one of the problems they have found so difficult to handle in the so-called Loop in Chicago.

The last point is, ITS RESULTS, AS A RULE, ARE UNBEAUTIFUL. That is open to question, but un-regulated skyscrapers are certainly. In New York they have by their setback of court area regulations, made it possible to achieve beauty in a skyscraper, and some very varied and interesting examples have been evolved.

You will notice, continued Col. Moorhouse, that those points against the skyscraper are every one of them for the benefit of the public as a whole, rather than in the interest of the individual.

With regard to our own city, I would like to give you a sort of mental picture of what goes on. The picture is of an office in lower Manhattan—there is a little group of land-pirates seated around a table—a map on the wall. The leader speaks: "We're done as far as the United States is concerned. They won't allow us to build over the whole lot. They won't let us go up indefinitely without stepping back. We can't put it over the public here. Where shall we go?" They study the map, and someone says: "Why, Toronto, that is the very place! They have a 130 ft. height limit there but anyone can bust that limit. We can get more floor area for our money there than anywhere in the world Let's get it up before they tighten down."

Building Height Limitation (Continued)

So they come over here, buy the land, sell it to the syndicate for double its value, and up goes another hideous monument to our lack of foresight.

In closing, I would like to suggest a reasonable regulation of building heights in Toronto:

Either That the present 130' height limit, approximately twice the width of the street, be adhered to as laid down in the City Building By-law;

or That the existing by-law be deleted and something like the following substituted for control in downtown districts.

Height: Twice the street width and not over 130'. For further height—a set back of one foot horizontally for each 2' vertically.

Cornices: Not to exceed in projection 5% of street width.

Courts: Above first storey 10% of lot must be left vacant, plus 1% for each additional storey. Maximum dimensions of court 10 feet.

This suggestion is only a general outline and does not take in particular cases, such as corners, which would have to be considered in detail.

EDITOR'S NOTE—As a result of Col. Moorhouse's address, the subject of Building Height Limitation was discussed by the Convention and the following resolution was unanimously carried:

Resolved, that the R.A.I.C. place itself on record as recommending the restriction of the height of buildings and the adoption and enforcement throughout Canada of By-laws limiting such height to a maximum of twice the width of the street in which the building is erected, with clauses limiting the projection of cornices over the street line, and requiring light courts of ample dimensions on all floors above the first floor, and such other reasonable restrictions as may be advisable.

Mr. Vincent Massey's Remarks on Architecture

Given at one of the Convention Luncheons.

Mr. Vincent Massey, in the course of remarks made at one of the Convention Luncheons, stated that he felt "there was no art that affects the average man so closely as that of architecture. He can avoid picture galleries if he wants to; but he cannot escape architecture. It hits him on every street, and that is all the more reason why everyone should give all the support possible to this profession.

"I had the pleasure recently of having a glimpse of the buildings of a dozen or more of the great European cities, and I had the interesting experience of coming back and checking up my impressions with what we have here. I was in Germany, France, Hungary, Austria, Poland and in Russia for ten days or more.

"As far as the new building is concerned in Europe, I feel it is true that what we are doing in this country will compare, if anything, favorably with what is going on in Europe.

"In England—some of you may not agree with me—as far as some of the monumental buildings in London are concerned, they are going in for a bizarre, jazzy sort of thing, which is false to the spirit of London.

"In Germany they have the unfortunate Teutonic characteristics of meretricious decoration and straining after originality, which is rather tiresome.

"Then in France you have the very ornate, rather debased French, which is used so badly in trying to imitate and failing, the best Parisian.

"Here in Canada I think we are making tremendous strides. However, I don't think the Architect has a fair chance for various reasons. In Toronto, for instance, the streets are none too pleasing. My first impression upon returning to Toronto was that the residential streets were the most beautiful imaginable, but the business streets have a devastating ugliness, due of course to the telephone poles and their narrowness, and the difficulty of the architect to place the buildings.

"Individually the buildings here all show tremendous strides and great charm as compared to what is going on on the other side. There is a vitality, there is a life, a real feeling about the work of building here, which shows that there is all sorts of promise and life within."

The Secretary's Page

ALCIDE CHAUSSÉ
Honorary Secretary Royal Architectural Institute of Canada

One of the most important recommendations passed by the Convention was a request to the Council of the Institute to investigate fully the possibilities of the organization of an Architectural Association in the Maritime Provinces.

This recommendation was passed as a result of an appeal made by Mr. Claire C. Mott of St. John, N.B.

Mr. Mott, in the course of his remarks, stated that the Maritime Provinces do not enjoy the privileges of an Architectural Association. "A few of the individual members of the profession located there who are members of the Royal Institute, were taken in at time of incorporation. Our members are few and far between. We are separated by considerable distances, and it is rather difficult for any of us there to make any move toward organization.

"I think that the general public to-day look to the professional men to be allied in some way with people of their own profession, and I would appreciate any move that the Royal Institute might make toward helping us to organize down in the Maritime Provinces."

The following delegates have been elected by their Provincial Associations to the 1924-25 Council of the Royal Institute, as follows:

Province of Quebec Association of Architects: John S. Archibald, David R. Brown, A. Beaugrand-Champagne, Alcide Chausse, P. E. Nobbs, Hugh Vallance.

Saskatchewan Association of Architects: Frank P. Martin, M. W. Sharon, David Webster.

Manitoba Association of Architects: Lewis H. Jordan, J. H. G. Russell, J. N. Semmens.

Alberta Association of Architects: W. G. Blakey, George Fordyce.

Ontario Association of Architects: L. Gordon Bridgman, J. P. Hynes, Stanley T. J. Fryer, D. W. F. Nichols, Walter M. Moorhouse, Forsey P. Page.

Architectural Institute of British Columbia: S. M. Eveleigh, J. C. M. Keith, Andrew L. Mercer, G. L. T. Sharp.

The following officers were elected for the ensuing year: *President,* John S. Archibald, Montreal; *1st Vice-President,* J. P. Hynes, Toronto; *2nd Vice-President,* W. G. Blakey, Edmonton; *Hon. Secretary,* Alcide Chaussé, 490 Union Avenue, Montreal; *Hon. Treasurer,* A. Beaugrand-Champagne, Montreal.

With the co-operation of the Provincial Associations a draft for new by-laws to replace the present ones have been prepared, these new by-laws will, it is believed, reduce the expenses of the Royal Institute, as it creates an Executive Committee who will administer the affairs of the Royal Institute. This Executive Committee will meet often with practically no travelling expenses, as the majority of its members will reside in the same province as the President then in office. The amended by-laws are as follows:—

EXECUTIVE COMMITTEE

The President, the Honorary Secretary, the Honorary Treasurer and those members of the Council residing in the same Province as the President then in office shall constitute the Executive Committee. The Executive Committee shall have power to administer the affairs of the Royal Institute as directed by the Council, the quorum of the meetings of the Executive Committee to consist of three (3) members present. The Executive Committee shall meet at the call of the President as often as the business of the Royal Institute may require and shall report its proceedings to the Council. The President of the Royal Institute is the Chairman of the Executive Committee.

MANAGEMENT

5. (a) The Council shall meet at the call of the President, one (1) month's notice to be given to all members by letter. Five (5) members present shall constitute a quorum;

(b) Proxies properly certified by the Secretary of any Provincial Association may be given their representative attending any meeting of the Council to cast a number of votes equal to the legal representation of their Association as provided for in the Charter.

The following resolutions were approved:—

"(1) That an Editorial Board or Committee be appointed consisting of one member of the Institute from each Provincial Association for the purpose of reporting any activities and sending in any information or special articles dealing with Architecture. The Chairman of the Publicity Committee to be Chairman of this Committee, who will have the final decision as to what shall or shall not be published in the JOURNAL.

"(2) That in order to keep in more constant touch with its members, the JOURNAL be published bi-monthly instead of quarterly as at present, this to take effect beginning with January, 1925."

Adoption of the report of the Publicity Committee was moved by Mr. J. P. Hynes, seconded by Mr. Archibald, and carried unanimously. Mr. Archibald, in seconding the adoption of the report, expressed appreciation of the work done by Mr. Hynes, remarking if this had been the only work done by the R.A.I.C. the Institute would have justified its existence.

Arising out of the Report of the Educational Committee it was decided to recommend to the Council that the Education Committee endeavor to convene the Professors of Architecture in the Universities of Canada at the time of the Annual Convention.

The time and place of the next annual meeting of the Institute was left to the Council to decide.

Notes on O.A.A. Convention

The following officers were elected for the ensuing year—1924-25: *President*, Stanley T. J. Fryer; *First Vice-President*, Frederick C. Lee; *Second Vice-President*, John Pearson; *Registrar*, George T. Evans; *Hon. Treasurer*, Gordon M. West; *Secretary*, R. B. Wolsey.

Results of the ballot in the election of Councillors were as follows: Messrs. John A. Pearson, Toronto; Geo. T. Evans, Hamilton; J. C. Pennington, Windsor.

The results of the election of delegates to the R. A. I. C. were as follows: Col. W. M. Moorhouse, Mr. L. Gordon Bridgman, E. W. F. Nichols, J. P. Hynes, Forsey Page, and the President, Stanley T. J. Fryer.

The Report of the Registrar gave the following membership as of 31st July 1924:

Honourary Members	5
Honourary Associates	2
Registered Architects, Practising	119
Registered Architects Employed	50
Members of other Prov. Associations	1
Associates	18
Total	195

During the year, 10 new members were registered,
1 member resigned,
4 members died, and
7 members were removed from the Roll.

The Board of Admission reports that during the year it has had 8 applications under consideration, of which 7 were recommended to the Council for registration, of which one was held for want of a favourable report from his Chapter; one application was not recommended as there was insufficient evidence of ability; two applications were accepted by the Council without submission to the Board.

The thanks of the Convention were extended to the Engineers' Club for their kind offer of the privileges of the club to the members while in Convention.

Considerable discussion took place in connection with the proposed amendments to the By-laws concerning membership. The By-laws as amended read as follows:

1. The Council shall have power to admit to membership:

(a) An Associate of three years standing during which time he has been practicing as an architect under his own name, and is such at time of application, and who otherwise has satisfied the requirements of the Ontario Architects' Act, after the Council has taken such steps as may be necessary to satisfy itself of the qualification of the applicant.

(b) An applicant who is a graduate of a University architectural course which is recognized by the Council, and who has in addition three or more years of experience in the profession as an Architect practicing under his own name and is such at time of application, and who otherwise has satisfied the requirements of the Ontario Architects' Act, after the Council has taken such steps as may be necessary to satisfy itself of the qualifications of the applicant.

(c) An applicant who has not the educational qualifications required by Clause (b), but whose work shows requisite ability, and who has had three or more years experience as an Architect practicing under his own name, and is such at time of application, and who otherwise has satisfied the requirements of the Ontario Architects' Act, after the Council has taken such steps as may be necessary to satisfy itself of the qualification of the applicant.

2. Members of any other Canadian Provincial Association of Architects who are practicing as Architects under their own names and are in good standing, may be admitted to membership in the Ontario Association of Architects after the Council has taken such steps as may be necessary to satisfy itself of the qualification of the applicant.

In addition to the Membership of the Association the Council shall have power to admit as Associates:

3. (a) Graduates of a University Architectural Course recognized by the Council, who have served twelve months in the office of an Architect or Architects approved by the Council, which period of twelve months may have been served during the student's college course.

(b) An applicant who has had 7 years experience under a Registered Architect after the Council has taken such steps as may be necessary to satisfy itself of the qualification of the applicant. Applicants who have obtained such experience under an architect not registered shall have this period extended by one year.

The following reports of the year's activities were presented:

London Chapter submitted the following report:

Our Chapter has not been meeting regularly for some months back. We are still there though and we are having an autumn meeting. We find it very hard to get the proper enthusiasm worked up. We are, so to speak, the baby chapter, for we only have about 10 or 12 members, and out of those only about half a dozen are practising architects.

However, during the year we were invited and several members attended meetings of the London Branch of the Engineering Institute at London, which we enjoyed very much, and an attempt was made to hold joint meetings, which, however, were not very successful. We are looking to better things in the future.

About the outstanding meeting we had during the year was when the Council of the Ontario Association visited us last November. We had the pleasure of being guests at luncheon of Mr. John M. Moore, at London, who is in charge of the new buildings of the University for Western Ontario. I think that was enjoyed by all those present, and I wish to say that these buildings—two of them—are now being

Notes on O.A.A. Convention (Continued)

completed and are to be opened the first of October. They have, I believe, 200 or 300 additional students this year already registered, and I am sure if any of the architects happen to be in London they would be glad to take them through and show them these buildings.

They have many things of interest out there and a very nice setting, and they have a plan laid out for future work there that probably will work out very well in a few years' time.

I hope our Chapter will come together more regularly next season and that we will be able to show an excellent report.

The Hamilton Chapter submit the following annual report:

During the past season fourteen meetings were held, seven in the fall of 1923 and seven in the spring, with an average attendance of 75% of the members.

The fourth annual meeting and the election of officers for the year 1923-1924 resulted as follows: *President*, Geo. T. Evans; *Vice-President*, Herbert E. Murton; *Secretary*, J. A. Robertson; *Treasurer*, William B. Souter; *Executive*, John Evans (Galt), Lester B. Husband, Louis O. Secord.

On October 24-23 the Chapter entertained at a dinner Inspector James Gill of the Hamilton School Board and three members of the Building Committee of the School Board. Inspector James Gill gave a very interesting talk on *Schools*.

On November 7th, 1923, Judge Snyder spoke to the Chapter on legal subjects interesting to Architects, Engineers and Contractors. Members of the Engineering Institute and the Associated Canadian Building Industries were invited and the attendance was large.

The two following meetings were addressed by Mr. W. A. Robertson, who spoke on fire-proof safe and vault construction, and Mr. J. A. Kneale, who spoke on paints and their application.

The following two meetings took the form of round table conferences and many points of interest to Architects were discussed.

On January 23, 1924, the Chapter entertained at dinner Mr. John M. Lyle of the Toronto Chapter. After the dinner Mr. Lyle gave a most interesting address on "The English Interior Decorations from the Tudor to the Adams Period," illustrated with lantern slides. The public were invited and about 75 attended the lecture and were delighted with the address, which was given in a very masterly manner.

The Hamilton Chapter was invited to visit the Toronto Chapter on March 25, 1924. The Chapter motored to Toronto and met at the new Union Station. They were conducted through this magnificent building by Mr. J. M. Lyle, who was one of the Architects of the building. A thorough inspection was made of the building, which excels in Architecture, furnishings and mechanical equipment.

At five o'clock the party met at Hart House and were conducted through this beautiful college recreation building by Col. Moorhouse and Professor Wright.

Dinner was served in the graduates' dining-room of Hart House and many excellent addresses were heard. This was the most interesting meeting of the Chapter and the Hamilton Chapter are planning a visit from the Toronto Chapter.

The Chapter is on a very firm basis. All the members are active and interested in the Chapter and comprise practically all of the dependable practicing Architects of the city.

The attendance at the meetings and the interest taken has been retained throughout the year and promises to continue.

The first of the meetings for the present season was held on September 3rd, and at our next meeting on September 17th the election of officers for the new year will take place.

In respect to co-operation, our Chapter has attempted a little extension work and now have Mr. John Evans of Galt and Mr. Bodley of Brantford as members.

The Toronto Chapter submits the following report of its activities during the past year.

Although the membership of the Chapter numbers 96, the Executive found it very difficult to get a sufficient number of members to attend the semi-monthly Luncheons which the Chapter had been holding during the past few years. It was therefore decided that the regular Luncheons be discontinued and that the Chapter function in the future through its Executive, which met regularly and dealt with matters of interest to its members. In addition to these Executive meetings, three special Luncheons were held during the past year. The speakers at these Luncheons were E. R. Arthur, recently appointed Professor of Architecture at Toronto University, who spoke on the work of Sir Edwin Lutyens, and John Moyle Duncan, who spoke on Centralized Heating for Groups and Communities.

One of the outstanding events of the year took place on March 29th, when the Hamilton Chapter were entertained by the Toronto Chapter. About twenty Hamilton Architects came over and were shown through the new Union Station and Hart House. In the evening they were guests of the Toronto Chapter at a dinner held at Hart House.

One of the principal things undertaken by the Chapter during the year was to interest the City Council of Toronto in Building Height Limitations in Downtown Districts. The Chairman of the Chapter together with two other members constituted a Special Committee and brought in a report which was forwarded on to the civic authorities. This was followed up by a deputation consisting of a number of our members appearing before the City Council to interest them in forming a special commission consisting of the heads of the different departments to consider this very important question.

Another important activity during the past year was the formation of a Special Committee to consider any suggested amendments to the City Building By-laws.

In connection with the Cenotaph Competition, our Chapter has succeeded in getting the Board of Control to appoint a Board of Assessors, consisting of three persons appointed by the Ontario Association of Architects, two of whom are to be architects and

(*Concluded on page 142*)

Structural Service Department

EDITED BY FRANK P. MARTIN
Member Saskatchewan Association of Architects

THE STABILITY OF THIN WALLS

Extract from the Report of the Building Materials Research Committee, London, Eng.

IT is generally realised that the actual stability of unsupported walls only a few inches thick is very small, and that such walls in practice always receive support either at the top or sides or both. It appeared therefore to the Committee that the most practical method of attacking the problem was to ascertain the breaking strength of typical walls when subjected to crushing loads and horizontal pressure applied to the walls while held at the top and bottom. This would correspond roughly to a wall having in it two door openings, the strength of a wall with no openings being somewhat greater.

The difficulty of applying loads by directly weighting the walls was realised. It was found possible to secure the use of a hydraulic testing machine which was capable of crushing short walls 8 feet 6 inches high, which is about the height between floors in a building of the cottage type. The investigation was entrusted to Dr. Oscar Faber, who is eminently qualified to carry out work of this description.

Tests were made on several commonly used materials, and each material was loaded to destruction in three ways:—

(1) Small cubes, generally 6 or 9 inches square, were crushed in order to ascertain the strength of the material when not used as a thin structure.

(2) Columns or pillars, 14 inches wide, from 2⅝ inches to 4½ inches thick and 8 feet 6 inches high. These narrow, thin walls or pillars were crushed, and their relative strengths compared with that of the cubes were ascertained.

(3) Short lengths of wall, 3 feet 6 inches wide, from 2⅝ to 4½ inches thick and 8 feet 6 inches high, were subjected to a vertical load of about 1 ton per lineal foot of wall, and, while thus loaded, a horizontal pull was applied to the wall at the middle of its height until failure took place.

As the investigation was somewhat tentative, a part only was undertaken in the first place, and a second series of tests was begun after the first results were available.

The results are given in the table below, and a full description of the tests is given in Reports 1 and 2.

RESULTS OF EXPERIMENTS ON STRENGTH OF THIN WALLS

Description	Crushing Strength of Cube.	Age of Cube when tested.	Crushing Strength of Wall. 14″ wide by 8′ 6″ high.	Age of Wall when tested.	Horizontal Pull to break Wall 3′ 6″ × 8′ 6″ high under Vertical Load of 1 Ton per Foot Run.	Age of Wall when tested under horizontal Pull.	Remarks.
	Lbs. per Sq. In.	Days.	Lbs. per Sq. In.	Days.	Lbs.	Days.	†
Stock bricks, 3 to 1 cement mortar wall, 4½-inch thick.	9″ × 9″ × 9″ 770	26	638	24	895†	34	In this specimen a vertical load of 2 tons per ft. run was applied in connection with horizontal pull test.
Do. 6 to 1 cement mortar	720	26	562	23	791	41	
*Fletton bricks, 3 to 1 cement mortar wall, 4½-inch thick.	1,530	26	1,040	24	781	39	
Do. 6 to 1 cement mortar wall, 4½-inch thick.	1,250	26	930	23	705	36	
Do. 3 to 1 lime mortar wall, 4½-inch thick.	1,050	22	330	24	375	27	
Do. on edge, 3 to 1 cement mortar wall, 2⅝-inch thick cast in one piece.	1,470	29	1,040	23	553	44	
Concrete, 1: 2: 4 wall 4½-inch thick.	1,480 2,250	22 42	1,230	26	1,262	27	
Concrete blocks, 1: 2: 4 set in 3 to 1 cement mortar wall, 4½-inch thick, 14″ × 9″ × 4½″.	1,480 2,250	22 42	1,510	22	1,253	25	
Concrete blocks (Winget 4: 2: 1) wall, 4½-inch thick.	block— 6″ × 6″ × 4½″ 743*	120	580	24	962	44	
Concrete blocks 4: 2: 1 (wet process) wall, 3-inch thick.	6″ × 6″ × 6″ 1,630* 6″ × 6″ × 3″ 1,240	29 29	1,130	24	700	32	
Coke breeze blocks wall, 3-inch thick.	6″ × 6″ × 3″ 236*	unknown	170	22	467 (slab)	41	
Coke breeze blocks wall, 4-inch thick.	6″ × 6″ × 4″ 243*	Do.	173	22	658 (slab)	41	

*These specimens were cut from a larger block as true as possible, but not faced, and no doubt were really stronger than the tests indicate.

*Hard Burned Clay Brick from South of England.

The Stability of Thin Walls (Continued)

Considered as a whole, the results obtained are remarkably consistent, more so than is usually the case in tests of full-sized specimens. The principal facts brought out are the high relative resistance to crushing shown by the slender walls or pillars, and the weakness of the lime mortar compared with Portland cement when tested in this way. With the exception of the wall built with lime mortar, the crushing strength of the walls varied from 67 to 83 per cent. of the strength of the same material crushed in cubes. The lime mortar only showed 30 per cent. The high percentage strength is to some extent due to the care exercised in centering the column under test. It is, however, clear that strengths approaching these can be developed in practice, provided care is exercised in the bedding of the joists, so that the load acts as nearly as possible through the centre of the wall. It is also necessary that the wall should be absolutely vertical.

The results further show that the walls built with Fletton bricks on edge in cement (2⅝ inches thick) resisted a much higher crushing load and horizontal pull than those built with the same bricks laid flat in lime mortar (4½ inches thick).

The coke breeze specimens showed low resistance to crushing, but a comparison of the strength of the cubes with that of the walls shows that, in spite of the low strength of the material, the percentage of strength of the wall is high as compared, for example, with that shown by the wall composed of Fletton bricks. Against the horizontal pull they gave better results than would be expected. All the concrete and breeze blocks show a high resistance to the transverse loads as compared with walls formed from smaller units such as bricks.

REPORT No. 1

The object of the tests was to gather information as to the buckling of thin walls under different conditions, the tests being so arranged that several materials, all likely to be used in building construction, could be compared and useful relative data obtained.

The tests on the crushing strength of the materials themselves were made on 9 inch cubes, with the exception of the concrete specimens where 6 inch cubes were used owing to this being the standard size of our moulds for this purpose. The 9 inch cubes were obviously more convenient in the case of brick-work.

The tests of direct compressive strength under buckling conditions were made on walls 14 inches long, 4½ inches thick, and 8 foot 6 inches high. These specimens were built up in timber frames and at the age of about 25 days were lifted vertically into the vertical 50-ton testing machine. They were tested between 4½″ × ½″ steel plates with two layers of felt about ⅛ inch thick between the specimen and plate. At the top of the specimen was a spherical bearing.

In the case of test (1) a steel joist was used top and bottom instead of the 4½″ × ½″ steel plate, but it was found that when the specimen failed by buckling, though the web of the joist remained vertical, the flange in contact with the specimen was bent over to an angle.

In test (2) oak blocks about 5 inches square were used instead of the steel plate and felt and this deformed into a rhomboid shape when buckling occurred.

It was as a result of these two tests that the steel plate and felt were adopted and these were found quite satisfactory and used in the remainder of the tests.

The specimens built in stocks of 3 to 1 cement mortar and with Flettons in 3 to 1 lime mortar failed by buckling sideways and opening at a joint. The specimen of stocks with 6 to 1 cement mortar failed by the bottom 8 courses of bricks crushing to a powder and the remainder of the specimens failed by the formation of vertical and diagonal cracks, similar to those commonly produced when specimens of these materials are crushed.

A remarkable feature of the tests is the fact that these very long, thin specimens gave such very high carrying capacity in comparison to the strength of the materials of which they were composed. As a matter of fact the mean figure for the whole of the 7 tests gives 69 per cent. as the ratio to the strength of the long columns to that of the cubes, which is considered to be a surprising result. In regard to the materials used the Fletton bricks appear to have been of good quality and very uniform, while the stock bricks varied considerably, some being hard burnt and some very soft.

The tests show that brick-work in 3 to 1 mortar is stronger than brick-work in 6 to 1 mortar in the ratio of 100 to 88 in the case of stocks and 100 to 89 in the case of Flettons, which are very consistent results. They indicate that brick-work set in 3 to 1 lime mortar is only about one-third as strong as brick-work in cement mortar when used for long, slender specimens, although when tested in short cubes it may show as much as 80 per cent. of the strength of brick-work in cement.

The reason of this is, of course, that in a short cube the mortar may crush to a powder and is still capable of resisting compression, whereas in a long column, once this crushing has taken place, the column fails by buckling.

The tests indicate clearly the great strength of even 6 to 1 concrete mixed wet in comparison to brick-work, the average of the two concrete columns being 1,370 lbs. per sq. inch as against 700 lbs. per sq. inch the average of the five brick-work specimens, *i.e.*, approximately double.

Tests of single bricks were made and it was found that hard burnt stocks crushed at about 1,460 lbs. per sq. inch and soft burnt stocks about 760 lbs. per sq. inch, *i.e.*, approximately one half. It will be seen that the cubes of stock bricks in cement correspond to the strength of the weaker bricks of which they were composed. In the case of Fletton bricks the strength of the brick was 3,300 lbs., per sq. inch, somewhat over twice the strength of the cubes made from these bricks.

Experiments were then made on walls 3 feet 6 inches long, 4½ inches wide, 8 feet 6 inches high, supported vertically in the testing machine between steel joints and felt, and a load of 2 tons per foot run in the case of stock bricks in 3 to 1 cement mortar and 1 ton per foot, run in the case of the remaining specimens was put on the machine. This load gives stresses of 82 and 41 lbs. per sq. inch figures which of course are only a small fraction of what

The Stability of Thin Walls (Continued)

the specimens would safely carry, but which were intended to represent approximately the vertical load which might be considered as coming on a wall when used for cottage construction owing to the weight of the wall above and the proportion of the floor load which it might have to carry. A horizontal load was then applied at the centre of the wall by means of a chain attached to a horizontal timber for spreading the load at the back of the wall and passing over a pulley to a large platform which could be conveniently loaded until failure occurred.

The results give surprisingly high values and when it is remembered that a single concentrated load at the centre would produce approximately the same bending stresses as twice this load uniformly distributed, it will be seen that in the case of brick-work in cement mortar the equivalent horizontal load per sq. foot producing fracture, is of the order of 50 lbs. per sq. foot, and in the case of brick-work in lime mortar approximately half this figure. In the case of the concrete specimen on the other hand the figure is approximately 75 lbs. per sq. foot. It will be noticed that the ratio of the strength of brick-work in lime mortar to that of brick-work in cement mortar in bending is approximately the same as that they bear to one another in the case of compressive strength of the long columns.

The thin bending specimen deflected amounts varying from ⅜ inch to 1⅛ inch before failure took place.

Tables I to III hereto attached set out the results in detail.

These tests were done in winter at a temperature of about 40° F., and both the mortar and the concrete would have been much stronger at other seasons.

The concrete consisted of

Four parts clean ¾ inch crushed ballast.
Two parts clean sand.
One part slow setting Portland cement.

TABLE I

STRENGTH OF MATERIALS

Materials.	Strength	Age (days)
Stock bricks—soft burnt - -	760 lbs./in.²	
" —hard burnt - -	1460 "	
Fletton bricks - - - -	3300 "	
4: 2: 1 concrete-moulded - -	1480 "	22
in blocks - -	2250 "	42

TABLE II

CRUSHING STRENGTH OF SPECIMENS 14″ × 5½″ × 8′ 6″ LONG

Material.	Joint.	Crushing stress.	Age (days).	Per cent. of Cube.
		lbs./ins.²		Per cent.
Stock bricks -	3 to 1 cement mortar	638	24	83
" " -	6 to 1 " "	562	23	78
Fletton " -	3 to 1 " "	1040	24	67
" " -	6 to 1 " "	930	23	74
" " -	3 to 1 lime "	330	24	30
Concrete 1: 2: 4: (cast in one piece). - -	None	1230	26	83
Concrete blocks 1: 2: 4: - -	3 to 1 cement mortar	1510	22	70

TABLE III

RESISTANCE OF CENTRAL HORIZONTAL PULL OF SPECIMENS

3′ 6″ × 4½″ × 8′ 6″ long under vertical load of 1 ton per foot run (41 lbs./ins.²).*

Material.	Joint.	Horizontal Force.	Age (days)
		Lbs.	
Stock bricks - -	3 to 1 cement mortar.	895*	34
" " - -	6 to 1 " "	791	41
Fletton " - -	3 to 1 " "	781	39
" " - -	6 to 1 " "	705	36
" " - -	3 to 1 lime mortar.	375	27
Concrete 1: 2: 4 (cast in one piece). -	None.	1,262	27
Concrete blocks 1:2:4	3 to 1 cement mortar.	1,253	25

*Note in specimen 1 the load was 2 ton per foot run (82 lbs./ins.²).

REPORT No. 2

Since submitting our First Report on 7th February, a further series of tests has been made on five types of wall as follows:—

(1) Fletton bricks on edge (2⅝ inches thick).

(2) Coke Breeze blocks (3 inches thick).

(3) Coke Breeze blocks (4 inches thick).

(4) 6 to 1 concrete blocks made in a Winget machine (4½ inches thick).

(5) 6 to 1 concrete blocks wet mixed (3 inches thick).

Of each of these types of wall two specimens were made, all 8 feet 6 inches high, but one series 14 inches wide for testing by crushing, and one 42 inches wide for testing under a central horizontal load so arranged as to produce bending stresses while the specimen was subjected to a vertical load of one ton per foot run.

The results of these tests are given in Tables (2) and (3) attached.

In all cases 3 to 1 cement mortar was used between the bricks or blocks, and they were tested at about 23 days' old. The specimens were tested in May, which happens to have been a warm month.

Table (1) of the strength of the materials used shows a result for Fletton bricks of 3,500 lbs. per square inch, which agrees very well with that obtained in the first series of 3,300 lbs. per sq. inch.

The strength of 1,240 lbs. per square inch for the wet mixed concrete blocks is probably low owing to the face being irregular as the specimen was cut from a larger slab, and the figure of 1,630 as shown by the 6 inches cube of the same material is probably a fairer test.

It will be noticed that while Fletton bricks are stronger than good concrete, cubes made of Fletton bricks in 3 to 1 cement mortar are slightly inferior in strength to concrete cubes.

It should be noticed that the concrete blocks made dry in a Winget machine gave only 743 lbs. per square inch, though the blocks were about four months' old, and the actual tests on the walls made

The Stability of Thin Walls (Continued)

with these blocks (*see* Table (3)) gave similarly low results of 580 lbs. per square inch.

The coke breeze slabs, are, of course, very weak, as was to be expected.

Referring to Table (2) of the crushing strengths of the walls, the wet mixed concrete and Fletton bricks both gave about ½ ton to the square inch. Comparing these with the corresponding tests on specimens 4¼ inches thick given in Table (2) of the First Report, it will be seen that the reduction in thickness has not reduced the strength at all in the case of the Fletton brick, but that in the case of the concrete walls it has reduced the strengths from 1,510 to 1,130. In all probability if several specimens of both kinds had been made it would have been found that there was a reduction in both cases of about 15 per cent. and the great strength of these very flimsy specimens in compression is remarkable.

If the strength per square inch of the long specimens is compared with the corresponding strength per square inch of the same material in the form of cubes, the reduction in strength resulting from the specimen being 8 feet 6 inches long and only 3 inches wide is seen to be very small and much smaller than would have been expected.

Referring to Table (3) of the horizontal force developed, the actual value of this force on the 3 inch specimens is, of course, much less than it was as given in the corresponding Table (3) of the First Report, where the specimens were 4½ inches thick.

It is interesting to notice that the horizontal force diminishes approximately in proportion to the thickness of the wall, not in proportion to the square on the thickness as might have been expected. Thus if we take the Fletton wall, the 3 to 1, 4 inch specimen gave 781 lbs. Multiplying this by 2⅝ and dividing by 4½, we get 456; and the actual value found was 553. In the case of the concrete blocks the 4½ inches walls gave 1,253. Multiplying this by 3 and dividing by 4½, it would give 835, while the actual value was found to be 700. The first of these is rather less, the second rather more.

SECOND SERIES

TABLE I

STRENGTH OF MATERIALS

Material	Height	Length	Width	Strength	Age
	Ins.	Ins.	Ins.	Lbs./sq.in.	
Fletton bricks -	4⅜	8⅞	2⅝	3,500	Unknown
Coke breeze slab	6	6	3	236x	"
" " "	6	6	4	243x	"
4: 2: 1 Winget blocks - -	6	6	4½	743x	4 months (about).
4: 2: 1 concrete blocks (wet mixed).- - -	6	6	3	1,240x	29 days.
" " " "	6	6	6	1,630x	"
Fletton brickwork in 3 to 1 mortar	9	9	9	1,470	"

TABLE II

CRUSHING STRENGTH OF WALLS 14″ WIDE × 8′ 6″ HIGH

(All joints in 3 to 1 cement mortar.)

Material	Thickness	Crushing Stress	Age (days).
	Ins.	Lbs./sq. in.	
Fletton bricks on 3-inch side -	2⅝	1,040	23
Coke breeze blocks - - -	3	170	22
" " " - - - - - -	4	173	22
4: 2: 1 Winget blocks - -	4½	580	24
4: 2: 1 concrete blocks (wet process).	3	1,130	24

TABLE III

RESISTANCE TO CENTRAL HORIZONTAL PULL OF SPECIMENS 42″ WIDE × 8′ 6″ HIGH UNDER A VERTICAL LOAD OF 1 TON PER FOOT RUN

(All joints in 3 to 1 cement mortar.)

Material	Thickness	Horizontal Force	Age (days).
	Ins.	Lbs.	
Fletton bricks on edge - -	2⅝	553	44
Coke breeze slabs* - -	3	467	41
Coke breeze slabs - - -	4	658	41
4, 2, 1 Winget blocks - -	4½	962	44
4, 2, 1 concrete blocks (wet process).	3	700	32

*This specimen was 4′ 0″ wide.

Notes on O.A.A. Convention

(*Continued from page 138*)

one an artist, who are to act in conjunction with the Board of Control to arrive at the awards.

Windsor Chapter reported as follows:

While the Chapter has not held a great number of regular meetings, it has, nevertheless, been functioning. All members have lived up to the code of ethics as far as can be ascertained, and we believe that there has been a conscientious effort to raise the standard of practice to its proper plane.

All meetings were discontinued during the summer months, but will be resumed immediately after the Convention, and we look forward to a season of increased activities with regard to the Chapter affairs.

The Chapter has elected to retain the present Officers and Committees in all cases, except that associate member, W. A. Wilkes, was elected secretary, to fill the vacancy caused by the death of our late A. J. Riddell, Esq.

This Chapter extends sincere greetings to every chapter of the Association, with the hope that all members will enjoy a successful and prosperous business year in their efforts to make this great Dominion a more beautiful place in which to live.

To the President and all Officers of the Royal Architectural Institute of Canada, as well as the Members of the Associations in the several provinces, we extend our deepest regards.

To the President, Council Body, and all Officers of the Ontario Association of Architects, we wish to express our sincere appreciation of their efforts on behalf of the welfare of the Profession.

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Specifications

"Lay the whole of the floors except where otherwise indicated on the drawings, in Maple. The floor shall be "Clear Grade" and shall have one face practically clear, but color no defect. Green or dark streaks not over ¼ inch wide and 3 inches long or its equivalent and small defects which can readily be removed by the ordinary method of scraping after the flooring has been laid, permitted.

Tongue will permit of one-half short for twenty-five per cent. of length. This grade must have one face free from shake and check, length 2 to 16 feet, but not over 15% under 3½ feet.

Sample of the flooring is on view at the Architect's office and flooring shall be equal to sample. The flooring shall be nailed at 16" centres with approved nails, and the nails to be 1/16" above the tongue so as to prevent splitting of the tongue."

LIST OF ADVERTISERS

NOTE

Advertisers and Advertising Agencies are requested to note that commening January 1925 the Journal will be published every other month instead of quarterly. Copy for January issue should be supplied not later than December 12.

THE JOURNAL

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