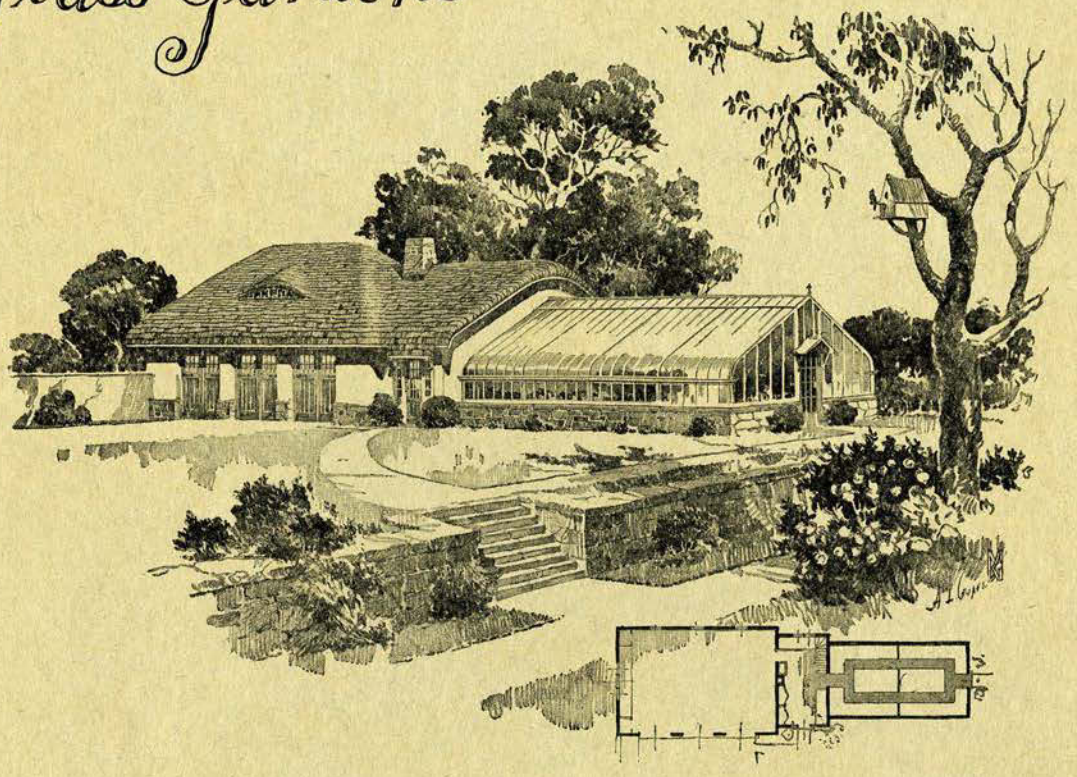
The Journal Royal Architectural Institute of Canada

VOL. 1 TORONTO, APRIL TO JUNE, 1924 No. 2

Second Quarterly Issue

Glass Gardens



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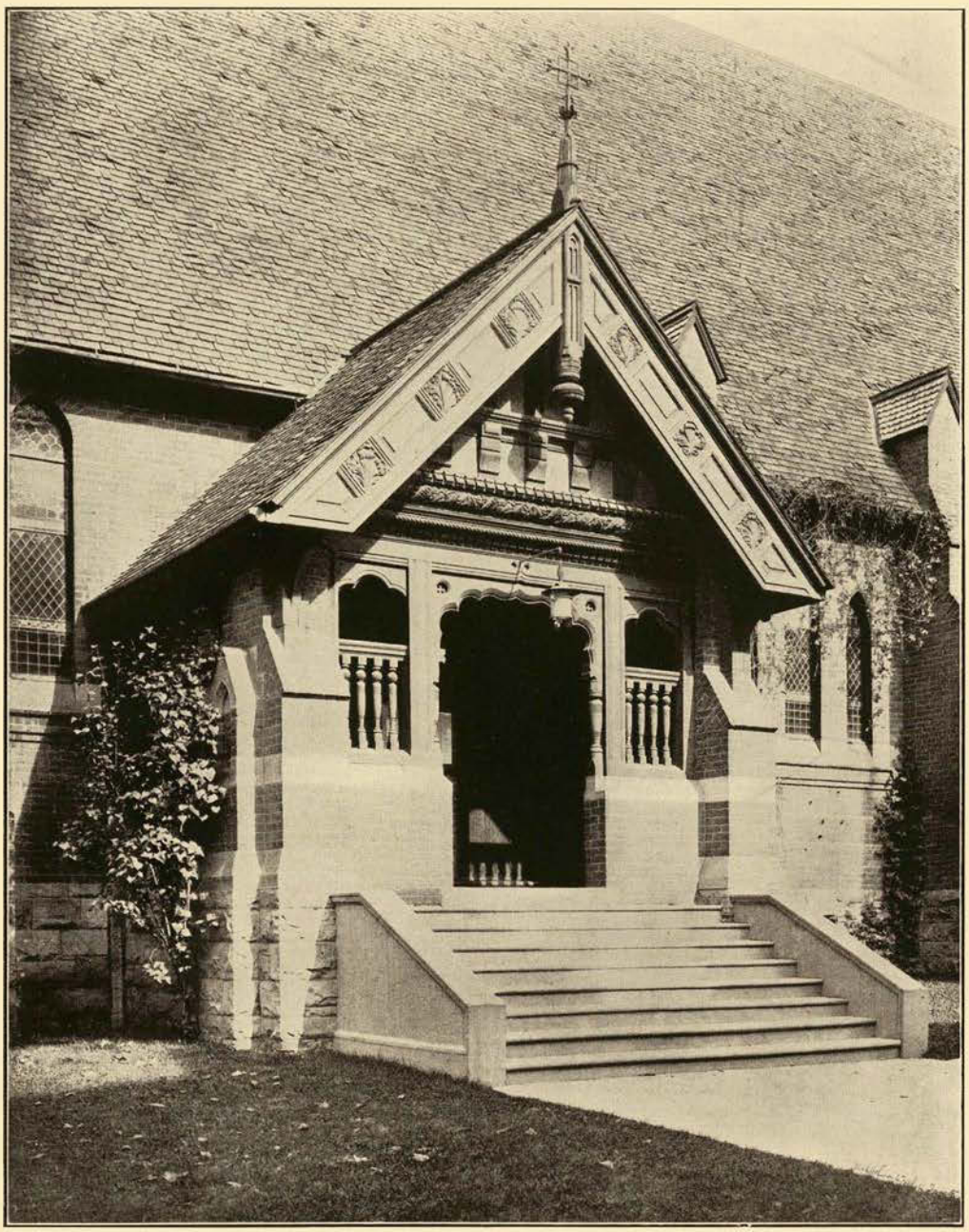

SOUTH PORCH
ST. LUKE'S CHURCH, TORONTO

Darling & Curry, Architects

THE JOURNAL

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Volume 1 TORONTO, APRIL TO JUNE, 1924 Number 2

Editorial

A SCRIPTURAL authority has stated that of the making of books there is no end, this really should have been sufficient warning, yet even now—one hardly cares to contemplate how many years later—the Royal Architectural Institute of Canada takes up its pen to make a book. This is not to be understood in the race-track sense of that phrase, rather that the Institute, as the heir of all the ages, desires to leave its footprints on the sands of time. The metaphor is possibly a trifle mixed but relying on their known bright intelligence we are confident that the members of the Institute will understand our meaning.

It is surprising by the way how easily one slips into the editorial "we"—what would happen if there was a salary attached to the office, one trembles to think. It may be urged in regard to the mixing of metaphors that it is of small importance for no one ever reads the Editorial page. That may be true but really it's very difficult to make an Editor believe it. The gentle reader (if there be one) will doubtless recollect a proverb about taking a horse to the water but failing to make it drink. Well then . . . but no, we must confess that of all the Editors one knows the difficulty is hardly to make them drink—so perchance it will be as well not to labor that point.

We have read too in the days of our youth (we said something about "reading" before, didn't we?) that rather vindictive wish "Oh that mine enemy had written a book." Now we would like to point out that those ominous words were written before the advent of the Authors' Association and they really have no sting to-day when practically all the best people are doing it. We feel that most of those whom we asked to contribute to this issue must have pondered over those words—taken them to heart indeed—for they were unanimous in stating that we had over estimated their literary talents. Now the architectural profession is notoriously modest. We have but few aldermen and no M.P.'s, (not even a Labour member) within our ranks, yet the Editor would beg of the members to forward articles for inclusion in forthcoming issues. There is a host of topics in which architects are vitally interested. They can talk well on these topics and, if they will, they can, write too.

At the dinner of the Architects' Welcome Club, in London, some time ago, the then president of the Royal Institute of British Architects (Mr. Paul Waterhouse) said that he had no use for the aloof architect: an architect on a desert island was impossible. There was one thing about architecture which always pleased him, the fact that it was a subject a man could talk about in his home. Architectural "shop" was not at all bad stuff and he had even known a man's wife interested in the art.

The writer has some faint recollection of his school days and of an attempt to produce a magazine for which he was solely responsible. It was a superhuman effort but, alas! was not a success—the only copies now existing are (we understand) in the Assyrian Room at the British Museum (one's handwriting in those tender years left something to be desired). In the first number of the magazine a prize was offered for a poem (the prize was, we believe, two white mice that the Editorial household refused to tolerate any longer) and in the second number—published some months after the first——the prize poem duly appeared. We still remember the deathless lines though we cannot now recapture the thrill that passed through our frame on opening the envelope:—

"Oh lovely rose, oh lovely rose,
All in a garden fair thou grows,
I sniff thy scent right up my nose,
Oh lovely rose, oh lovely rose."

The point of this recital is, that even so poor a medium as a magazine conducted by the present writer needs must be, gave to the world the lines quoted above—it is, therefore, needless to embroider the fact that its brief career was not inglorious.

That the JOURNAL of the Institute can be an even greater success goes without saying—for one thing it is to be printed and the vague delight of guessing what a given word written by the Editorial hand may be, will be gone although, of course, printers are the devil—and they will doubtless add something to the joy of life.

In conclusion we would plead once more for articles from members and the following heads might be suggested:—

Notes about competitions—those properly conducted and those of the race suicide order—also notes about the competitors and the assessors. The Editor will undertake to keep the contributors within the bounds of the Act relating to libel.

Notes about members and their doings—it would be a good thing if we could have a short biographical note about some one of our members each month. It might be accompanied by a photograph.

Articles relating to historic buildings and historic sites throughout Canada. There are many of our members who could write with authority on these subjects.

Articles relating to the work and the problems of an architectural office.

It is hardly necessary to prolong the list and it is only our unqualified anxiety to make the JOURNAL

a complete success that gives us the temerity to suggest any specific articles at all. We might make the appeal even more definitely to Toronto:—

"Where scholars in their Stetson hats
Are plentiful as tabby cats
And some say far too many.

"Where art professors you may meet
In two's and three's in every street
Maintaining with no little heat
Their various opinions." W.D.C.

The reception given to the first issue of the JOURNAL by the members of the Institute, its contemporaries and the advertisers in it has assured the Publicity Committee that the JOURNAL is filling a real want in a manner that insures success, not only for the JOURNAL, but for the Institute. This justifies the action of the Convention in establishing the JOURNAL which not only gives a live point of contact with the members, but already is showing the possibility of further contact in the wider field of non-professional architecture.

The Relationship Between Architecture and Building

By LOUIS JAY HOROWITZ
President, Thompson-Starrett Co.

By courtesy of "The American Architect"

I HAVE been asked to express my views as to the relationship between architect and builder. One may, at best, offer only a surmise as to what is in store for the industry in the near future, but of the absolute need of co-operation between Architect and Builder in every operation, I may be allowed to speak with sympathy and conviction.

I am unalterably opposed to the methods of some contractors who seek to dispense with the architect and who attempt to embrace in their activities both the design of a building and its execution. I am opposed to it, not from any sentimental reason for the architect, but from purely business reasons for the owner. The designing and planning of buildings is in itself a special and separate study, and the contractor who treats it as just one more addition to the great variety of his labors is not only slighting the architect's profession, but disparaging architecture itself, and needs to be reminded (loth as I am to admit it!) that architects are remembered when builders are forgotten. Sir Christopher Wren designed St. Paul's Cathedral, but who built it? However, the architect's case does not rest on tradition alone, but on efficiency. His is a career of true specialization, and with the constantly rising cost of space in modern cities, it is sheer folly to underestimate the services of one who devotes his talents to utilizing it to the best advantage.

Obversely, I may be permitted the privilege of saying, that the contractor cannot wisely be dispensed with by the architect. Indeed, this must be so, or the other side of the argument falls to the ground. A properly-conducted building operation demands the services of both architect and contractor, and, for either to dismiss the services of the other as superfluous, is to create a situation inherently unsound and unsafe. I will not assume to define the limits of the architect's work, but I violate no confidence when I say, that the contractor's end of the proposition, if skillfully and conscientiously handled, will provide his organization with all it can do. In these days of collusive bidding, complex transportation problems, high wages, shortage of skilled mechanics, and other economic difficulties, a contractor has enough to do to cope with his own tasks without assuming those for which he is not fitted. It is deplorable that many contractors fail either to appreciate the gravity of these problems or to overcome them, and certainly any attempt to enlarge upon their difficulties by adding architecture to the list, may be set down as due to an excess of zeal for their own interests at the expense of the client.

Still another advantage in having an architect is that he is equipped to supervise and check the work of the contractors, and to see that promises of speed and economy are kept without sacrificing the specifications. Having no financial interest in the building beyond his fee, he is detached and impartial, can be depended upon to see that justice is done to his client, and is ideally situated to act in an advisory and supervisory capacity. Obviously, when an architect takes the contractor's place, too, he loses much of that detachment and impartiality, for however zealous his dual labors as both architect and contractor his zeal can hardly be expected to include criticism of his own work! And in any event his fee is inadequate to maintain a great organization on his payroll, and without such an organization the work is bound to suffer in efficiency and to expand in cost.

Saskatchewan Legislative Buildings, Regina

IN 1907 the Province of Saskatchewan held a limited competition for the selection of an architect for a legislative and executive building to be erected in Regina, the capital of the province.

Six Canadian and one American architect were invited and all submitted designs. The assessors were Mr. Bertram Goodhue, A.I.A., of New York; a distinguished architect whose recent death is a great loss to the profession, and Professor P. E. Nobbs, M.A., R.C.A., F.R.I.B.A., of McGill University, Department of Architectrue.

The programme conditions called for accommodations for the legislative branch of the government, such as a legislative council chamber to seat 125 members, with speakers, press and public galleries; and conveniently adjacent, members' retiring and smoking rooms, a speaker's room, committee rooms, library, executive council chamber, premiers' and governor's rooms.

The executive group comprised accommodation for the various departments, such as Treasury, Agriculture, Public Works, Education, Railways, etc.

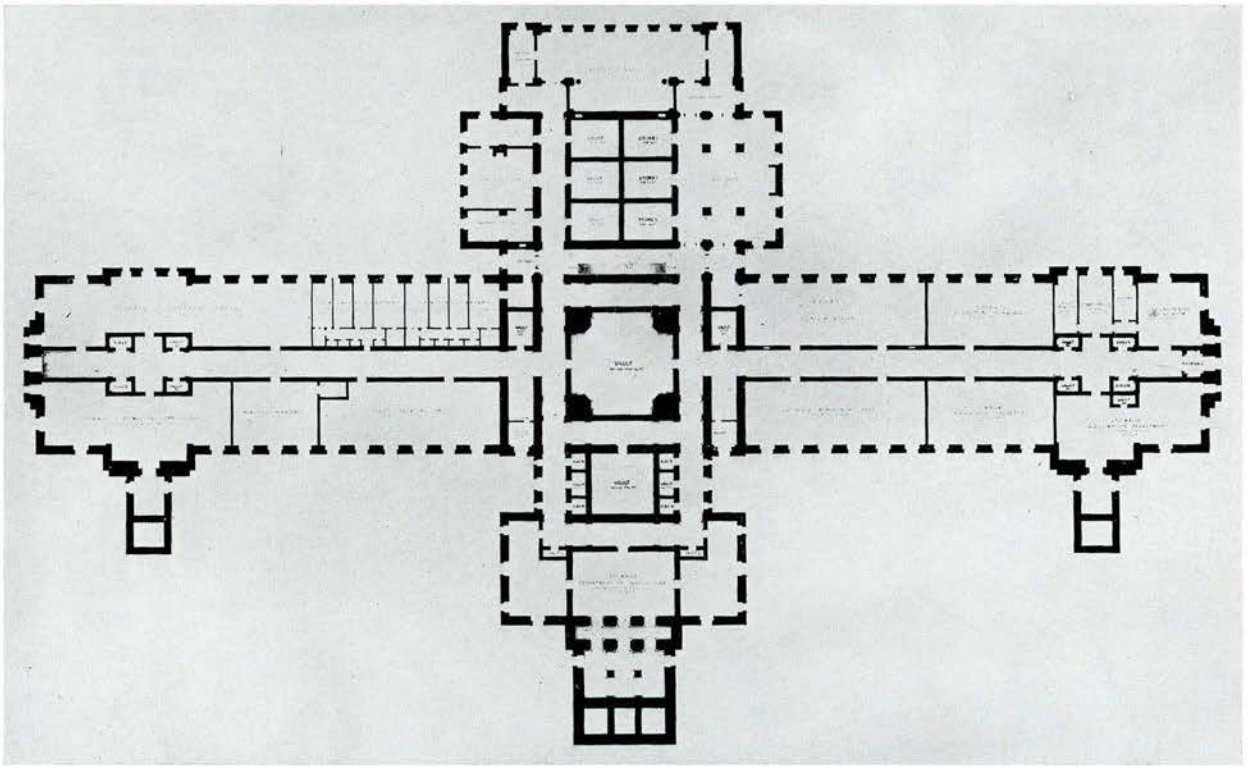
A decision was rendered awarding the competition to the firm of Edward and W. S. Maxwell, of Montreal.

The site on which the building is erected is to the south of the city and divided from it by a lake surrounded by parks and public buildings. The site is practically level, and for its development the services of Thomas H. Mawson, Hon. R.I.B.A., a distinguished English landscape architect, were secured. It will be several years before the scheme rounds into shape owing to the difficulties encountered in growing trees in the Prairie Provinces.

The approach from the heart of the city is by a boulevard which crosses the lake over a bridge, the Parliament Buildings being on a spacious property to the left, and approached by a wide driveway.

The building facing north is carried on concrete piles and is constructed of buff Tyndale limestone, having an agreeable texture due to its fossil formation. The nature of the stone precluding the use of elaborate mouldings or sculpture, had a definite bearing on the design and detail of the structure.

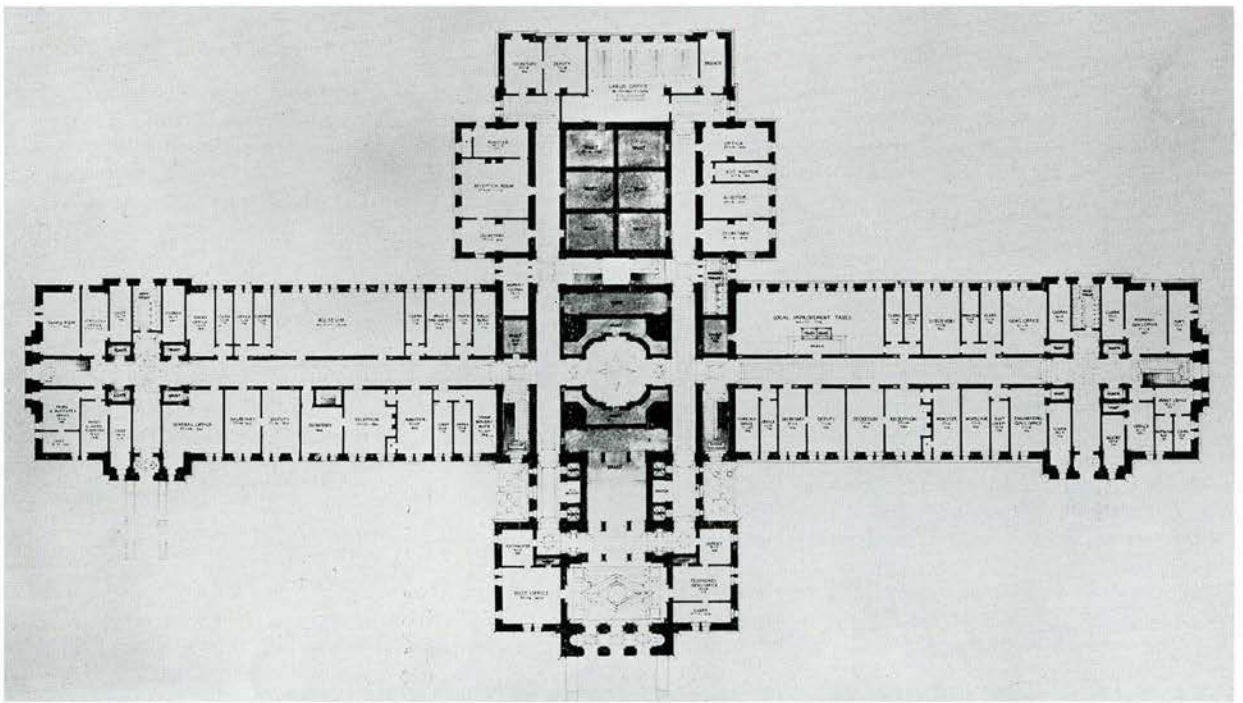
In general character the style adapted is reminiscent of English Renaissance, the dominating feature being an octagonal dome having a total height of 190 feet which renders it visible from great distances. The overall dimensions are 532 feet 4 inches east to west and 305 feet 5 inches north to south. The facade from grade to coping is 64



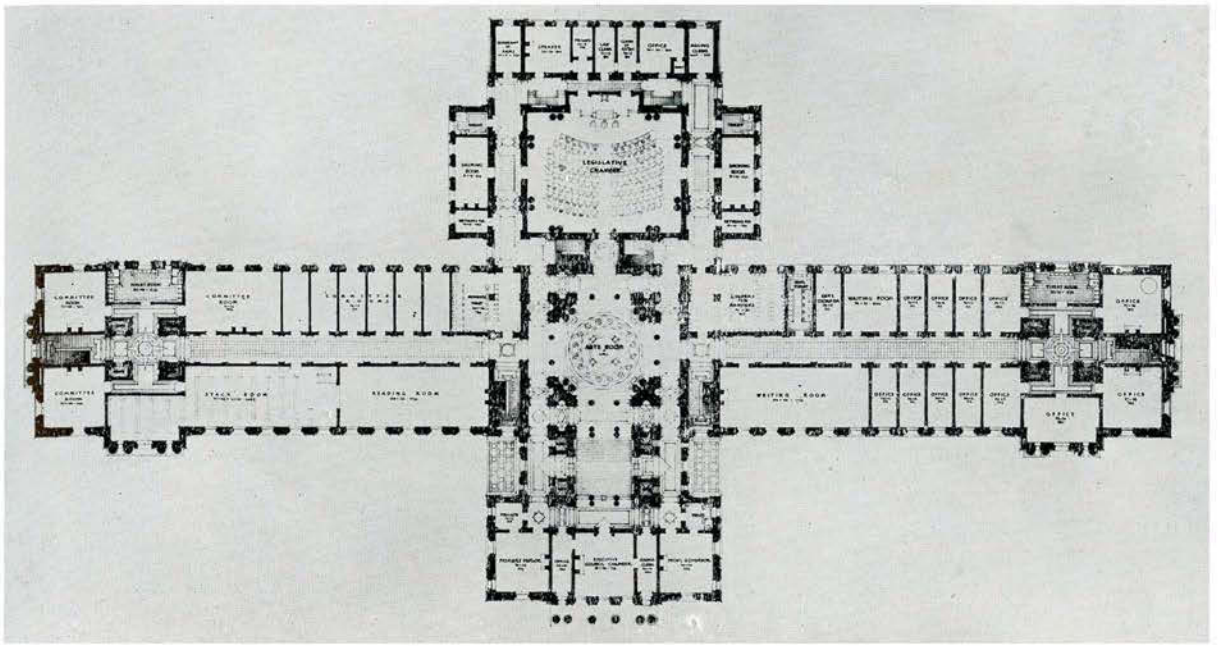
BASEMENT PLAN, SASKATCHEWAN LEGISLATIVE BUILDINGS
Edward & W. S. Maxwell, Architect

feet high. The plan is of the cross type with the dome at the intersection. The principal, but not the longer axis of the plan, is north and south. The main entrance is reached by a wide flight of granite steps from which one enters through a vestibule into a spacious hall. Continuing along the axis line one ascends to the main floor by a wide flight of steps through a marble staircase hall with an arched ceiling, columns of Greek Cipolino marble being the predominating decorative and constructive feature of the main floor treatment.

At the head of the staircase one arrives in a



GROUND FLOOR PLAN, SASKATCHEWAN LEGISLATIVE BUILDINGS
Edward & W. S. Maxwell, Architects



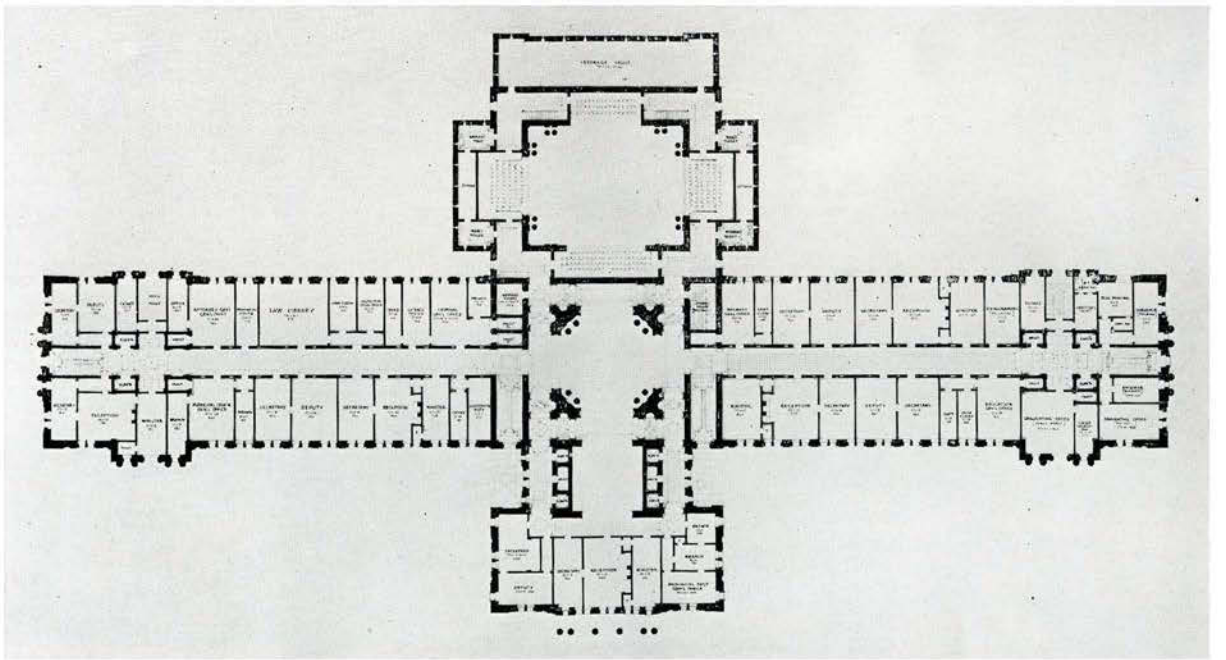
MAIN FLOOR PLAN, SASKATCHEWAN LEGISLATIVE BUILDINGS
Edward & W. S. Maxwell, Architects

domed anteroom of monumental proportions. Eight large monoliths of Greek Cipolino marble support the entableture from which springs the dome. The decorative scheme contemplates the use of mural paintings on the large lunette spaces above the surrounding galleries. A very agreeable mellow light filters through the glazed domed ceiling.

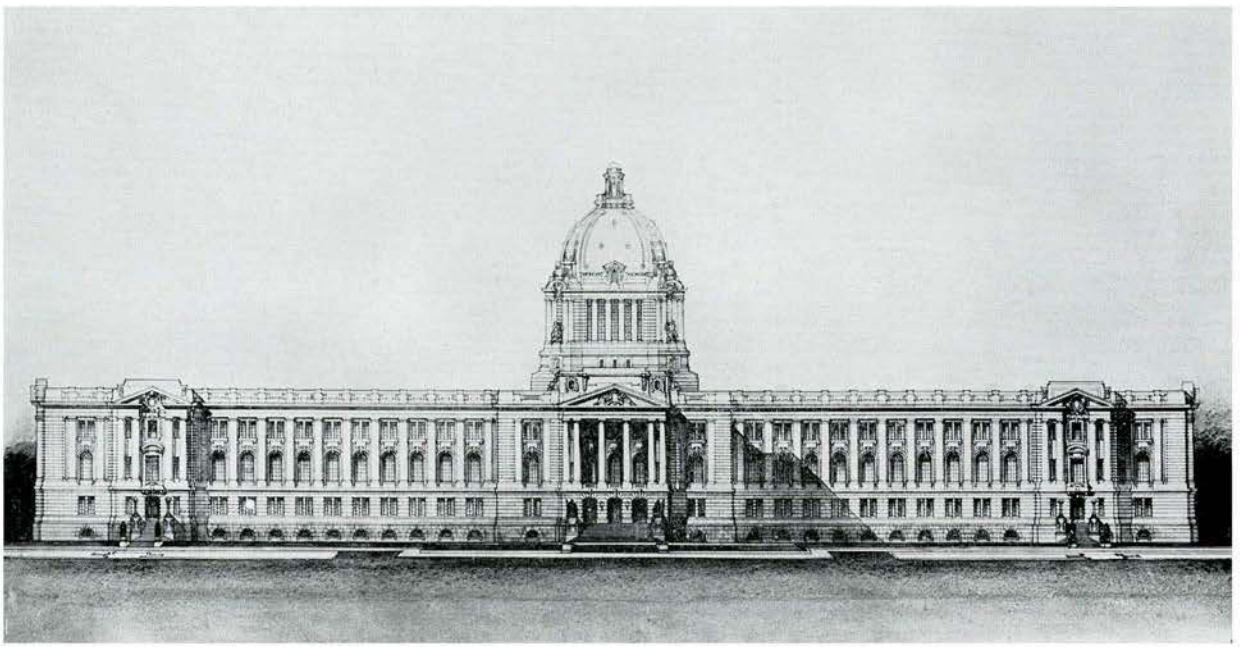
Beyond the domed ante-room is the top lighted legislative chamber where oak has been utilized for the panelling and furniture.

Four galleries devoted to the use of the public, the speaker and the press, surround the chamber. A scheme of mural decoration contemplated for this room, as well as other portions of the building, had to be postponed indefinitely on account of the war.

All the main floor is devoted to legislative purposes. On the front, over the entrance hall, is the executive council chamber, the governor's and premier's rooms, and other minor rooms that function with the suite. To the east and west of the domed ante-room are reading, writing and



UPPER FLOOR PLAN, SASKATCHEWAN LEGISLATIVE BUILDINGS
Edward & W. S. Maxwell, Architects



FRONT ELEVATION (ARCHITECT'S DRAWING), SASKATCHEWAN LEGISLATIVE BUILDINGS
Edward & W. S. Maxwell, Architects

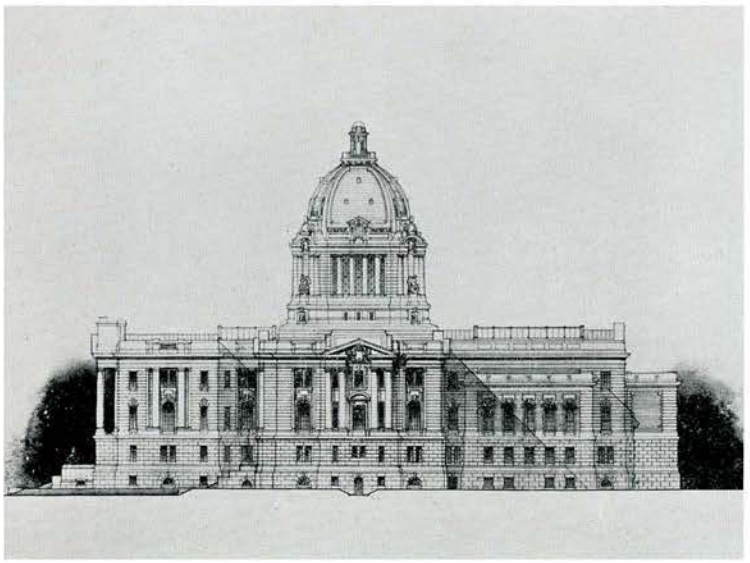
committee rooms, as well as members' offices. The building has a basement, a ground, a main and an upper floor. In the basement at the rear is a group consisting of a members' restaurant, dining, coffee and smoking rooms with adjacent kitchen. With the exception of the main floor and a portion of the basement, all of the building is devoted to executive purposes.

All construction throughout the structure is fireproof and of a high standard, the interior finish is substantial and designed with due consideration to durability and reasonable economy.

The main public rooms and approaches are in suitable and permanent materials. The decoration of these rooms was carried out in the simplest manner as the final scheme includes the introduction of mural work by Canadian artists.

There is a power house quite a distance to the rear of the Parliament Buildings, and provision was made in the lot plan for other buildings. To

FRONT ELEVATION (PHOTOGRAPH), SASKATCHEWAN LEGISLATIVE BUILDINGS
Edward & W. S. Maxwell, Architects



END ELEVATION, SASKATCHEWAN LEGISLATIVE BUILDINGS
Edward & W. S. Maxwell, Architects

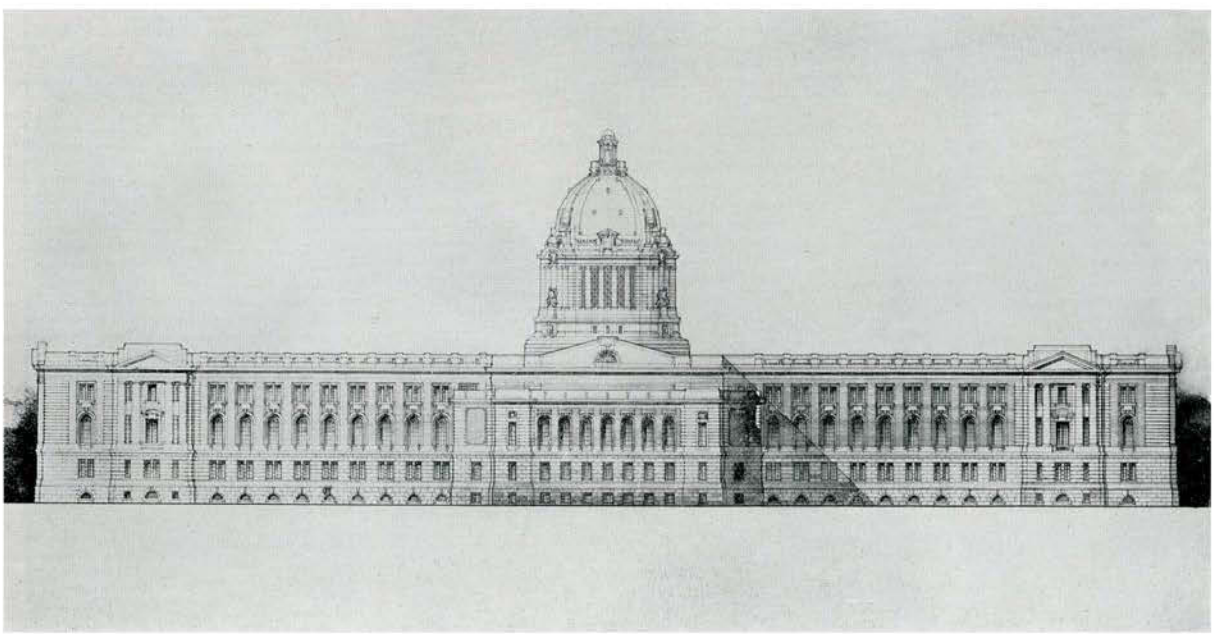
the east, across the lake, the government acquired a property on which was to be placed a suitable Government House. Plans for the residence were made by Edward and W. S. Maxwell, but its erection had to be postponed until more settled conditions should prevail.

The competition programme gave information regarding labour and material costs and competitors had to consider economy in their designs. The erected building follows very closely the architects' competition drawings illustrated in this article.

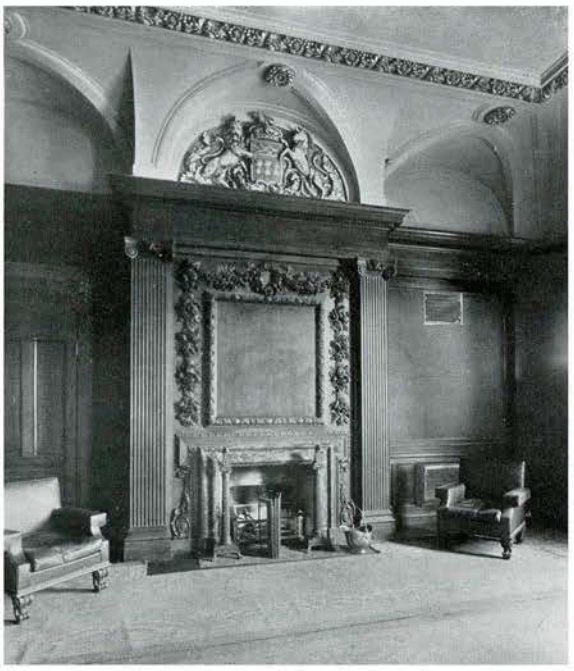
The time occupied in building the structure was five years and the cost about $2,000,000 (two million dollars).

Peter Lyall & Sons of Montreal were the contractors, and Mr. Joseph Fortin, P.Q.A.A., the representative of the architects.

The extra work above the contract price consisted of a change from the stone and brick of the competition drawings to an all-stone building, and the introduction of marble into the ground staircase and rotunda.



REAR ELEVATION, SASKATCHEWAN LEGISLATIVE BUILDINGS
Edward & W. S. Maxwell, Architects

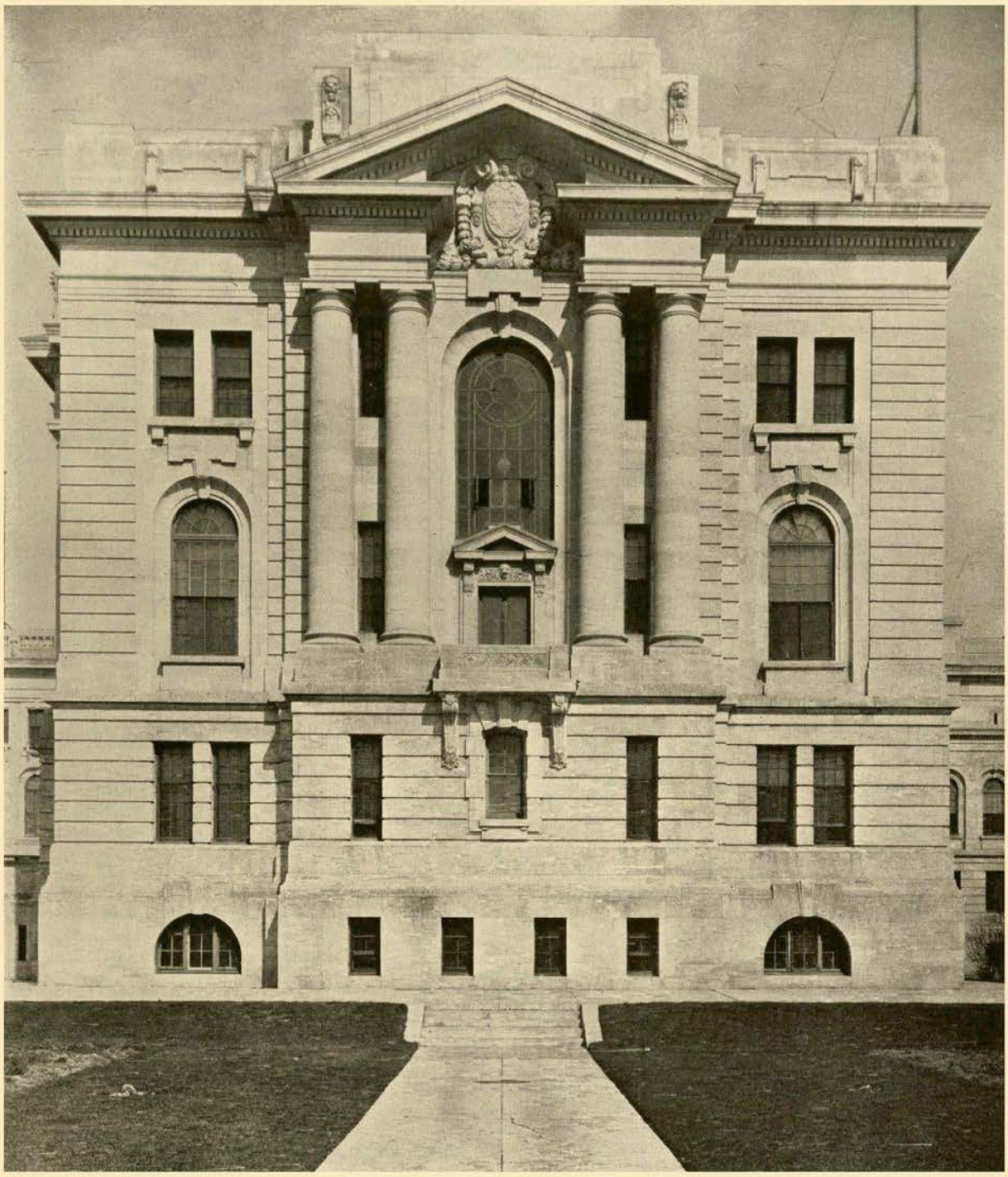


MANTEL IN EXECUTIVE COUNCIL CHAMBER

LEGISLATIVE CHAMBER, SASKATCHEWAN LEGISLATIVE BUILDINGS
Edward & W. S. Maxwell, Architects

SASKATCHEWAN LEGISLATIVE BUILDINGS, REGINA
Edward & W. S. Maxwell, Montreal, Architects

ANTE CHAMBER, UNDER THE DOME
SASKATCHEWAN LEGISLATIVE BUILDINGS, REGINA
Edward & W. S. Maxwell, Montreal, Architects



END PAVILION, DETAIL
SASKATCHEWAN LEGISLATIVE BUILDINGS, REGINA
Edward & W. S. Maxwell, Montreal, Architects

EDWARD MAXWELL, R.A.I.C., R.C.A.

Born Dec. 31st, 1867 *Died Nov. 14th, 1923*

Some Impressions of Canadian Towns

By Professor C. H. Reilly
School of Architecture, University of Liverpool, Eng.

EDITOR'S NOTE—This is a first of a series of Articles written by Prof. Reilly. There will be three others. The next issue of The Journal *will contain his impressions of Toronto*

I.—MONTREAL

MONTREAL is a city of contrasts. In it the old and new world meet, as well as this one and the next. It has as many churches and more convents than Rome itself, and at the same time it is the centre of a highly successful commercial community. Three-quarters of its population are of French extraction, and maintain the slightest possible contact with the remaining quarter, which is Scotch. It has slums and modern high buildings touching one another. It has Trappist monks in brown habits and sandals threading streets noisy with street cars and bright with the best-dressed women outside New York or Paris. Its situation, too, is romantic. Clustering round the mountain which gives it its name, it lies on an island in the ample folds of the St. Lawrence. It boasts of receiving its air unimpeded from the North Pole, and from the upper terraces on the mountain side the whole American continent appears to lie at its feet. Its latitude is really that of Marseilles, while its climate varies between Arctic cold and tropic heat.

Division of Races

The most striking fact to the English visitor is the division of races. It is more complete than the separation between Northerners and Southerners in Ireland, but, though there are occasional incidents, neither side as yet has taken to burning down other folk's property as reprisals. Both civilizations in Montreal appear to grow and develop side by side, and one at least is 300 years old. Each, for instance, maintains its own university, the Scotch McGill, the French Canadians Laval, and no one, professor or student, dreams of passing from one to the other. Nothing will bridge the chasm, neither sport nor literature, art or cocktails. I was soon made to understand that any efforts to do so would be looked on askance. They say religion has fixed the gulf, but that seems to me a libel on religion.

It was my good fortune to become acquainted with both the leading French architect and the leading Scotch one. Both were enthusiastic successful men, approaching their prime, and had built for themselves houses within one hundred yards of each other. Though they met officially, till my visit neither had been inside the house of the other, and they were both very shy of doing so. Now, the house which an architect builds with no client to please but himself is always interesting, and these two were particularly so, for they seemed to sum up two different civilizations, two entirely different views of life. The Frenchman's house, with its discreet exterior, seemed to look in upon itself for its pleasures, the Scotchman's, perched on the mountain side, with its terrace and its wide windows, seemed in comparison ready to embrace the world. The Frenchman had centred his house in his studio, a fine apartment running through two storeys. It was at once his atrium or patio and his salon. Into it the other rooms looked, the ground floor ones through wide openings up a few steps and between some twisted columns from a Paris altar, those of the upper floor by means of the unexpected little balconies, from which one heard on entering the twittering of women's voices. One felt instinctively that the women's apartments were separate and not for the casual visitor. The studio itself was rich with French bronzes, Spanish pictures, Eastern china and rugs. It had, too, a blue and gold Italian Renaissance ceiling. The apartment was that of a man not only possessed of the taste and knowledge of the artist and the connoisseur, but of one who had behind him the civilizations of Rome, Italy, and France.

A Scotch Interior

The Scotchman's house was equally good, but of a totally different order. It was a tall, austere pile, standing out prominently on the mountain side, and commanding a vast view of the town, the St. Lawrence, and the distant mountains. The big, bare rooms, with their polished hardwood floors and an occasional choice rug, contained a few very good pictures. His rooms were inhabited by his wife and children rather than by bronzes and statuettes. It was a house full of modern conveniences, efficient in service, yet fine in its shapes, a notable if somewhat rare combination. Historically its ancestry could be traced back to the Scotch castle and the Teutonic schloss, and, of course, ultimately to Italy.

I think these two houses are typical of the two aspects of Montreal, its French vivacity and gaiety, its Scotch fineness and solidity. The latter qualities are responsible for and very well shown in its great street of banks, St. James' street. Here great pile after pile—buildings we should call skyscrapers if put up on this side—succeed one another. Each has a great banking hall on the ground floor, culminating in the finest banking hall in the world, that of the Bank of Montreal—alas, by an American architect. Though the streets of Montreal are often narrow and ill-paved, they are generally lined with a forest of great telephone poles, each with a giant birdcage on it, said to be a transformer. These telephone poles are so densely packed that I was told an Indian once blazed a trail through the city by means of them. The banks and commercial buildings, however, are on a scale unknown over here. They represent Scotch enterprise and worldly success, just as the big churches and convents, the other most striking buildings in the town, represent the other-worldliness of the French Canadians. This Scotch commercial part of the town is concentrated into a small space as is the Scotch suburb of Westmount—a separate municipality showing with its order and cleanliness what Scotch prudence can

Some Impressions of Canadian Towns
(Continued)

do when combined with a high rateable value. For the rest there are great French districts of wooden houses and shops, open cafés, and even a French repertory theatre. The English-speaking portion of the city has to be content with the travelling companies London and New York care to send, though lately it has started some amateur community players, who give occasional performances of Shaw and Galsworthy.

A General View

Let us climb the wooded slopes of the Mountain and take a general view of this second city of the Empire, equal in population to Liverpool before we finally leave it. From this vantage point we can see that it is a city of tree-lined streets almost down to its business quarter—trees which have silver boughs and trunks in winter and the brightest foliage in summer. They are trees, too, of considable size, comparable to the trees in the London squares, the first thing all Americans visiting London notice. We see, striking across these tree-lined streets, a great thoroughfare running east and west. This is Sherbrooke, the Fifth Avenue of Montreal, containing its chief apartment-houses and hotels, its magnificent marble Art Gallery, and most of the mansions of its sixty-two millionaires. A strict account is kept of the latter, who are considered to be a noticeable feature of the town. Between the Mountain and Sherbrooke one sees a large open piece of grass surrounded by fine stone structures. This is the Campus of McGill and the University Buildings. Neither McGill nor Laval are placed in the Ghetto, as is the University of Liverpool. McGill, too, it is interesting to remember, was the university which in these hard times collected £2,000,000 in reply to its appeal in two weeks, and the answer of the French community was for a single of the rich order—the Sulpicians—to write a cheque for Laval for £1,000,000. Further down, below Sherbrooke, there is the silver dome of the Cathedral, a miniature copy of St. Peter's at Rome, which many devout French Canadians think will some day, not very far off, itself succeed to the chair of the successor of St. Peter. In the same region, a little to the east, is the mass of tall buildings already mentioned, and beyond that again is the long line of docks and warehouses, with an occasional giant elevator standing up in gaunt concrete.

A City of Character

To the left and right stretch the suburbs, the neat bourgeois one of Outrement for the French, the palatial one of the Westmount for the Scotch. The slums lie between them, and nearer to the river, for Montreal, unlike American cities, has slums, and pretty bad ones. Someone has said that that is what endears it to Europeans and makes the Americans a little contemptuous. The real source of its attractions on the American Continent is that it is a city which has grown, and not one which has been artificially made by the real estate agent. Some of it is old and needs rebuilding, but all of it has character. An American town set out on a checker-board plan can never have character; when it grows it merely becomes bigger. It reduplicates itself all the time. Montreal may have its dirty, tumbledown parts, but the central section of it will never have the block system. Unfortunately, the real estate agents, unconsciously copying those of the States, for no one would consciously do such a thing in Canada, are already seeing to it that the newer sections shall be all gridiron. I was told that the whole island, several square miles in extent, was not plotted up. It is a melancholy thought, though the Mountain, which belongs to the public, and the curves of the great river which encircles the town like a quadrupled Mersey, can fortunately never be brought into this rectilinear arrangement. These between them must ever make Montreal one of the most picturesque towns in the world.

The Royal Canadian Academy Travelling Scholarship Award

AWARD in the first travelling scholarship in architecture offered by the Royal Canadian Academy of Arts was made to Leslie A. Perry, of Montreal, who last year attended the Faculty of Architecture of McGill University under Professor Ramsay Traquair and Professor Percy E. Nobbs. This travelling scholarship, of the value of $1,500, has conditions which exacted that the candidate furnish drawings which show his acquaintance with modern and ancient monumental architecture; color decoration in at least three media, as mosaic, fresco, stained glass, inlay, oil painting; ornamental form in such materials as wood, marble, granite, bronze; drawings from the life and figure sculpture, and a design, the subject at the option of the candidate.

The three other candidates for the scholarship were W. B. Riddell, of Hamilton, Earle L. Sheppard, of Toronto and J. B. Soucy, of Montreal.

The jury of selection in this competition were G. Horne Russell, president of the Royal Canadian Academy; Henry Sproatt, R.C.A.; W. S. Maxwell, R.C.A.; Percy E. Nobbs, R.C.A., and E. Dyonnet, R.C.A.

Building Height Limitation in Downtown Districts

By Lieut.-Col. Walter Moorhouse, D.S.O.
Chairman Toronto Chapter Ontario Association of Architects

IT would seem to the semi-informed public an obvious conclusion that skyscrapers are an asset to a city. In spite of this, there are few subjects that demonstrate more clearly how a little investigation proves the falsity of jumping at a conclusion, however obvious it may seem.

A joke has to be a fairly broad one to draw a laugh from a crowd; and a condition affecting the public, where vested interests are concerned, has to be a serious one before any move will be made to seek a remedy.

Thus it is that the skyscraper springs up and multiplies until suddenly a condition has been created in which its original fair seeming attributes are offset by a host of disadvantages to the community. By this time the mischief is made, in as permanent a form as structural steel and masonry can make it. Then it is that the public are aroused from their apathy and look around for a remedy, which can by this time only moderate but not relieve the condition.

This is just what happened in New York, Chicago and other large centres, and it is interesting to note that, what is probably the most exhaustive study, summary and report ever made in the subject, was carried out in 1923 by the Chicago Real Estate Board.

Disciples of the obvious claim that skyscrapers increase the value of real estate. Why then should the Real Estate Board of this great commercial city even consider the question of Building Height Limitation. The answer is that greater average value and stability of values over the down-town area seemed to these shrewd business men to be to their advantage. They had other reasons also, such as will be mentioned later, and in addition, a large share of civic patriotism apart from self interest.

Now, New York and Chicago are cities with an excuse. In both centres, great enterprise had been forced, by natural obstacles, to concentrate in a loop of comparatively small area. They couldn't expand, so they had to climb. As in other cities, the ultimate results were not foreseen but were obscured by the apparent immediate demand and by what amounted to an obsession—the advertising value of the skyscraper. Then when the serious result became apparent, and something had to be done, we have an admission such as occurs in the Chicago Zoning Commission's report, "If the consideration of public welfare was the only thing to consider, it would dictate a reduction in the height of buildings far below the recommended limitation."

Let cities that have not yet the skyscraper problem on their hands profit by lessons and investigations such as these, and especially those cities that have not the excuse for the skyscraper that New York and Chicago had.

The right of an owner to develop his property should be restricted as little as possible, and therein lies the difficulty in a community.

A solitary hermit in a desert, alone can enjoy full property rights, as his actions in that respect have no effect as long as he remains out of contact with his fellow men. The gradual approach from this extreme to that of vast concentration in cities is marked by a gradual increase in restrictions to property and other rights, as the penalty of living with one's fellow men is that their rights must also be considered.

Property restrictions then should be as few as possible, consistent with the greater benefit to the greater number.

The parties concerned are:—(1) The property owner as owner; (2) the property owner as a citizen, and (3) the general public.

The first is concerned only with his own interest and acts vigorously to that end. He demands the right to get the maximum return possible from his development, both in rentals and increment of capital investment. Let the other fellow beat him to it if he can!

The second remembers something about "Do unto others, etc.," and, thinking of his own interest as part of the common interest, may even be influenced thereby in his actions. Worldly wisdom will also suggest that while the development of his property affects his neighbor, he also will be affected by what his neighbor does.

The general public, advisedly placed third and last, will only move when their toes are trodden on.

IN THIS QUESTION OF BUILDING HEIGHT LIMITATION, THE RESULTING CONDITION MUST BE CONSIDERED WHEN THE AREA IN THE DISTRICT IS FULLY OCCUPIED TO THE MAXIMUM HEIGHT ALLOWED.

The points bearing on the subject will be discussed briefly under the following headings:—

1. Health and safety.
2. Building investment.
3. Civic development, land values and assessment.
4. Traffic and transportation.

1. (*a*) Health—The disinfecting action of sunlight and the advantage from a health standpoint of free movement of fresh air, are well known.

There is no doubt that high buildings exclude, to a varying degree, both light and air from the streets. The higher and narrower the streets are built, the more unhealthy are conditions both on a still day on account of stagnation of the atmosphere and on a windy day on account of the dissemination of dust and disease germs.

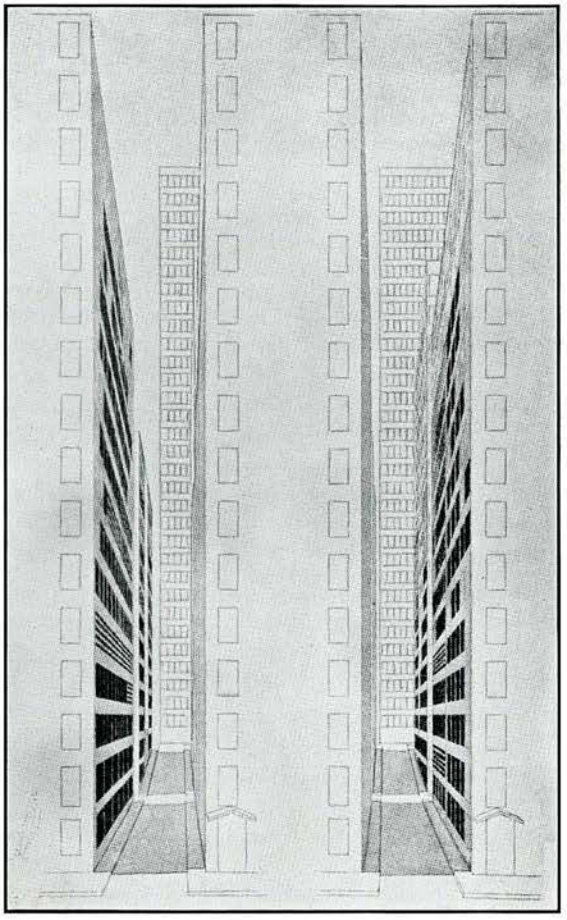
It is notable, too, that during cold weather, on account of draughts produced in the air shafts and cañons caused by high buildings, it is common to find offices absolutely sealed from the outside air. Just as a civic board of health requires the fulfilment of regulations regarding plumbing, so should they consider the question of ventilation

Building Height Limitation in Downtown Districts

(Continued)

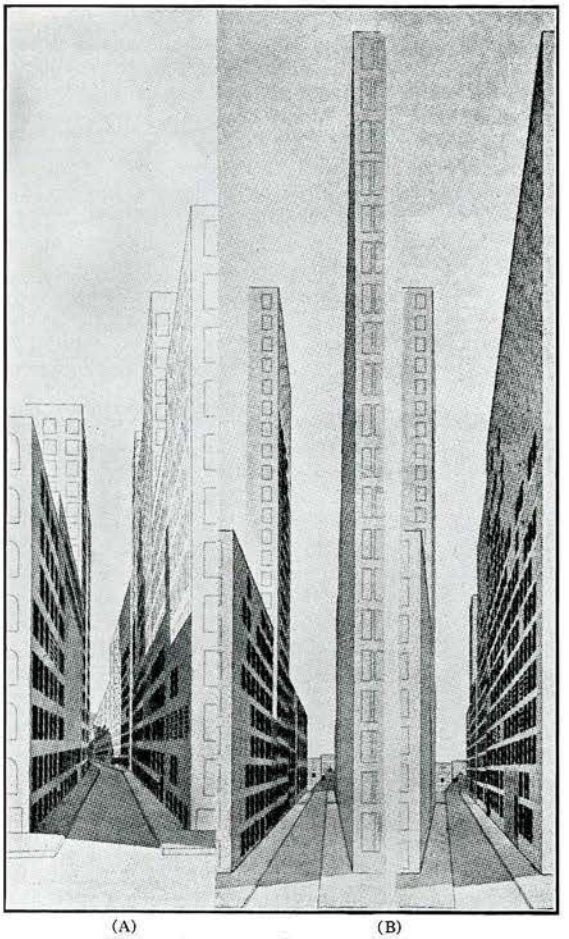
and demand that all buildings exceeding a certain height be equipped with adequate systems for the exhaust of foul air and the supply of fresh washed air.

Eyestrain in offices is also a consideration, and a study of conditions on certain streets such as Exchange Place and New Street in New York will show how much artificial light is used even on a sunny day in summer.



USE OF ARTIFICIAL LIGHT IN OFFICES ON EXCHANGE PLACE FROM BROAD STREET TO BROADWAY

The black windows indicate where artificial light was being used near the windows at noon on a sunny summer day



(A) (B)

USE OF ARTIFICIAL LIGHT IN OFFICES:
(A) ON NEW STREET LOOKING SOUTH FROM WALL STREET
(B) ON EXCHANGE PLACE FROM BROAD STREET WEST.

The black windows indicate where artificial light was being used near the windows at noon on a sunny summer day.

By Courtesy of Height of Buildings Commission, New York City

While it may be argued that these conditions due to height of buildings only slightly augment the general hazard to health of the office worker in a city, yet, that they do increase such hazard is certain.

1. (*b*) SAFETY—The hazard from panic and fire obviously increase in direct proportion to the narrowness of the street and the height of the buildings.

It is an erroneous idea that a building of fireproof construction is proof against fire and its resulting panic. There is always the possibility of the internal fire of contents, and that due to outside exposure. Such fires have actually occured and were very difficult to control, as the temperature reached as high as 2200° Fahr., when brass will fuse and wired glass run like molasses.

Consider such a fire occurring during business hours on the 10th floor of a 20-storey building! Fire can be fought from the street only to a height of about 85 feet in most cities. Admission of the danger lies in the fact that most cities compel buildings exceeding a certain height to install their own tanks and fire-fighting apparatus.

2. BUSINESS INVESTMENT—It is a fact that an isolated office building on high priced land makes a maximum return when covering as much of the lot as possible and when carried up about 20 storeys. Beyond that height, excess area required for elevators, and engineering considerations, reduce the percentage of return.

Such a building is an exploitation building and the owner is taking a chance on remaining isolated and obtaining light and air over the heads of his neighbors. He places them at a disadvantage also, unless he is restricted as to area, as they will have to concede space to the advantage of the exploiter,

Building Height Limitation in Downtown Districts
(Continued)

in order to obtain light and air, should they wish to build to the same height.

The owners of buildings of moderate height far exceed in number owners of those of abnormal height and there is no doubt that their blocks are exploited by abnormally high buildings.

The margin of profit in an office building is not great, and loss of rentals due to ill lighted and ventilated offices is a point worthy of the prospective owner's consideration.

There are many instances in American cities where high buildings, originally a paying investment, have suffered serious loss of rentals as the neighbouring property owners exerted their rights to a similar development.

3. Civic Development, Land Values and Assessment—The law of supply and demand rules in relation to office space as in other commodities. The point is, whether this should be housed in a few high buildings concentrated in a small area, or spread out in a greater number of lower buildings.

Is there a necessity for such concentration? Possibily, where natural obstacles ruled, as in original down-town New York and Chicago. Possibly, in the isolated case of a building designed for business carried on between its own offices. Otherwise there is little necessity. It takes as long to go up 20 storeys as it does to walk a block. With our modern telephone service, the business man can keep the wheels of commerce turning without straying far from his office desk.

A slight additional distance to go won't damp the ardour of your modern high-pressure salesman.

Now, if we concentrate office requirements in a small area, it follows that the rest of the down-town office section will be stagnated until demand arises. Does not every city suffer from the fact that high real estate values are concentrated, while even at a short distance away, land is valued at what is probably far below its true worth? Does not every city suffer from the fact that a large area down town is occupied by obsolete buildings with little hope of development on account of concentration in high buildings in an adjacent area?

Two ten-storey buildings on land of a reasonable and stable value are better for the city than one 20-storey building on land of a fictitiously high price.

Increased value due to location such as corners, etc., will be compensated by higher rentals and advertising value. The law of supply and demand will regulate that.

Undoubtedly, a reasonable building height limitation would, on these lines, bring greater benefit to the greater number.

It is worthy of note here, that Paris, inside the walls, built up to about 6½ storeys high, has a greater average height of buildings than the lower part of Manhattan.

As far as retail trade is concerned, it is particularly susceptible to the harmful influences of extremely high buildings. It is notable that in New York, the high-class retail district has moved no less than three times, mainly on this account. Think of the loss involved in the expense of such a move and the difficulty of re-establishing.

Does this tend towards stability?

The above considerations will, in like degree, affect the problem of taxation, and it is claimed that the more evenly distributed development resulting from a reasonable building height limitation would also tend toward stability of assessment.

It is obviously unfair that property, de-vitalized by the proximity of a skyscraper, occupied by obsolete or obsolescent buildings, without the capital necessary for development, or the demand in that locality for development, should be taxed on the same land value basis as the skyscraper that exploits it. Assessment should to some extent comport with earning power.

4. Traffic and Transportation—It may be said truly that congestion of traffic and difficulty of transportation are caused by the automobile, and by theatres and departmental stores to a far greater degree than by skyscrapers.

This may be, but when one considers that, at certain hours of the day, a thousand or more people emerge per hour from one skyscraper, the increase in street congestion and the transportation problem are serious considerations. Then, repeat the caption already noted. "In this question, the resulting condition must be considered when the area in the district is fully occupied to the maximum height allowed," and you have a real problem.

Other complications follow, such as the necessity, due to concentration, for more parking space for business reasons.

These are problems, the solution of which will cost a pretty penny. It has been suggested in some cities that the future cost of handling congestion should be chargeable to the property owners in the district. Such a suggestion might encourage among them a study of this subject.

Good transportation, combined with a reasonable building height limitations, will have the effect of spreading out the business district and relieving to a certain extent the congestion of modern down-town streets.

These then are a few of the arguments in favor of a reasonable Building Height Limitation, the scope of this article neither permitting a thorough discussion of so large a subject, nor many authoritative quotations to substantiate such arguments.

We have then, the isolated exploitation building giving its best return at approximately 20 storeys. Every other consideration urges a reduction in this height—surrounding growth to a similar height, light and air, safety, the rights of the other fellow, traffic congestion, transportation etc.,,—until we reach a compromise between existing established precedent, property rights and land values on one side and the welfare of the community on the other.

Where the skyscraper has not yet intruded, the height limit should not exceed 130 feet in a 66-foot street.

In conclusion, it is recommended that the copious literature on this subject and its allied one of Zoning, be studied by civic administrators and executives. There is hardly a department in municipal affairs that is not affected directly or indirectly by some phase of these subjects.

To make a mistake is human. To repeat the same error is bad enough, but it is even worse to adopt deliberately a policy that one's neighbor admits has caused and is resulting in a host of difficult problems.

A Layman's View of Architecture

From an address given by Mr. Samuel Smethurst, ex-President of the Institute of Builders, before the Manchester Society of Architects

MR. SMETHURST prefaced his address by saying he made no pretension to having any technical knowledge of architecture; he was free altogether from having any conscious predilection for any particular order or style. The real essence of beauty appertained to no particular style. It seemed to him that good architecture was not only beautiful, but given the same quality of labour and material it was with rare exceptions the cheapest. In Liverpool recently he was shown three buildings—two by one architect, and one by another. The two first buildings he had classified as "fair;" they had as features somewhat expensive ornament, and ranked with much that was only too common in English architecture. The third building was a factory of huge mass, and yet the architect, by fine proportions and almost perfect plainness, had succeeded in getting a really beautiful building of its class. The beauty in that case would endure as long as it existed. It seemed that much of the architect's work in the mid and later half of the past century was vitiated by an inordinate craving for ornament, which was piled on without rhyme or reason, and although always costly was invariably ugly.

It seemed to him that London was quickly becoming the finest capital city in Europe as regarded its architecture. There was a great deal more refinement in the detail of the French buildings, but as one gazed down boulevard after boulevard in Paris one was impressed with the same comparative flat surface, giving a monotonous effect relieved only now and again by such buildings as the Opera House and the Madeleine. It seemed that French architecture lacked the strength, variety and virility of the London thoroughfare. He had read adverse criticisms of the architecture of the Law Courts, but he thought as a matter of effective grouping it was very fine, and seen from the Strand on a bright moonlight night it was a most enchanting building. It was precisely those effects that appealed to the ordinary citizen, and not whether it conformed with this or that standard of style.

Architecture had aspects other than the purely aesthetic. There was the practical side, a very real and important side, the one that was concerned with the utility of the building. The work of planning required gifts of a very high order, but the man who shone in that department often lacked the ability to design the really beautiful building, and so very often resorted to gaudy ornament to give a finish to his work. The real artist exercised the greatest restraint in the use of those things, which was a most difficult thing to do. The true secret of why there was so much building that was not good was that clients as a rule were more concerned about getting a man who could give a well planned and convenient building to enable them to carry on their business in the best way. They also appreciated the man with a strong commercial sense, who could see that they got value for their money. Such men were often men who also knew thoroughly the constructive side of building, and knew how to erect buildings which were safe for the work they had to do. A really great architect would have all those qualities, and so be complete—every age might produce a few such men. An ideal firm would be one which had principals skilled in the various sides of the profession—one should make the plan, be strong on construction, have a good commercial grasp of building, and then his colleague who could give form and life to the structure should begin to play his part; to get all he wanted it might be necessary to sacrifice some little of the utility, but that would always be done under the consciousness of the price that was being paid and a full knowledge of what one got for the sacrifice. He sometimes thought if he were a client and had an important building to build he would engage two architects, one a commercial utilitarian man who could give the best plan and construction, and a business sense in the execution of the work, and the other a man who could ensure fitness and beauty in the design. He did not think that would add to the cost materially, if at all, on the principle that it cost little to buy a few tubes of paint and brushes, a pallette and canvas, yet the product might be a picture of great value; and so that something which was indefinable but was in the soul of a man might arrange for the use of crude bricks, stone, timber, and other raw material of a building to be placed in such a way (yet at no more cost) that the resultant was a thing of beauty and an enduring monument for good through the ages.

To reduce what he had said to a definite formula, his idea of architecture was that every time an architect got a commission he had first to study the purpose for which the building was to be used, and go to any amount of trouble to ensure he had got the best possible result. He had to calculate his loads at different points of his structure, to see that he not only got a sufficient foundation but that the weight was equally distributed to avoid unequal settlement. Then the style must be decided. That, surely, must be influenced by the surroundings. The architect must think not only of his own building, but of the group or street of which it formed a part, remembering always that he was helping to create a picture.

He had said that beauty was often more a question of good proportion and grouping than anything else. The height and the breadth of every part should be what it ought to be; the windows, and the panes within them, should answer also to this law; the roof, the chimneys, the break in line of the building, should all be restful, harmonizing together to form a complete whole. What of ornament? It was a necessary part, but needed restraint in its use. Monumental buildings should have large and bold cornices, and nearly all buildings should have their plainness relieved by bands of suitable size and position. Doorways, pilasters, architraves (sometimes but sparingly) aprons, were all things with which the skilled architect juggled. Then there were the colour effects, which were important, depending upon surroundings and background which no real artist would neglect.

Structural Service Department

EDITED BY FRANK P. MARTIN
Member Saskatchewan Assocation of Architects

SOUND-PROOF PARTITIONS

By F. R. WATSON
University of Illinois, Bulletin No. 127

PURPOSE OF INVESTIGATION.—The demand for quiet rooms in hospitals, hotels, and office buildings, the desirability of insulating music studies and other rooms where disturbing sounds are produced, and the necessity for solving other problems for the control of noise have led to repeated requests from architects and builders for reliable information on effective methods for insulating sound. Although present knowledge of the subject is incomplete, nevertheless, on account of the pressing need for guidance in such matters, it is thought desirable to collect and present the available information in a systematic way, giving the methods and results of various investigations relating to the action of materials on sound, describing practical installations of soundproofing, and setting forth in accordance with existing knowledge recommendations that may be applied where sound insulation is wanted. Before 1915 little was known definitely about the subject and cut-and-try methods were used when soundproofing was desired. These cases were usually isolated and few published accounts are available, so that little progress was made. Since 1915 the problem has engaged the attention of scientists who have conducted investigations in the light of known phenomena of sound and obtained results that are now applied in practical constructions.

ACTION OF SOUND WITH APPLICATIONS TO BUILDINGS

Origin of Sound—Sound of a definite frequency consists of a regular series of alternate compressions and rarefactions generated by a vibrating body and progressing in spherical waves in the surrounding medium. Figure 1 pictures the waves in air sent out by the human voice through a megaphone.

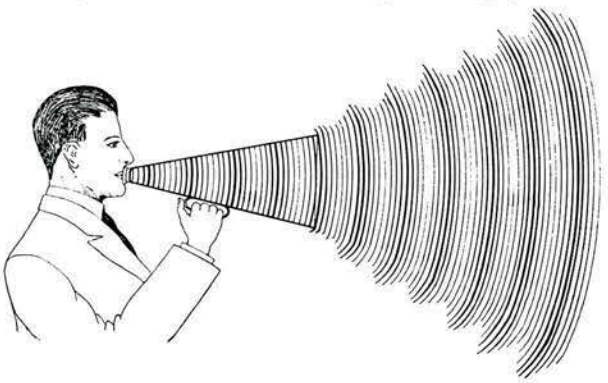


Fig. 1. Diagrammatic Representation of Compressions and Rarefactions (Sound Waves) Sent Out from a Source of Sound

The vibrations in this case are due to the vocal cords which are set in rapid oscillations by a stream of air from the lungs. An unbalanced motor may cause its supporting base to shake, thus imparting to the surrounding air small motions that are propagated as sound waves. A case for consideration in buildings is the generation of sound waves when a wall or floor is set in vibration by a motor, an elevator, or other agency.

Amplitude of Sound Vibrations—The amplitude of vibration in sound waves is small, according to estimates varying from 0.00000005-inch for a sound barely audible to 0.004-inch for a loud sound. A very small motion of a building partition will therefore be sufficient to generate in air a sound that may be detected by the ear. Thus one of the difficult problems in sound insulation of buildings is to reduce the motions of walls as far as possible.

Propagation of Sound—Sound waves set up by vibrating bodies are propagated through the surrounding medium—solid, liquid or gaseous—with considerable velocity, v, depending on the elasticity, E, and the density, d, of the medium, according to the formula: $v=\sqrt{E/d}$. The values of the velocities for a media are given in Table 1.

Table 1. Velocity of Sound in Various Media

Medium	Velocity of Sound at 0 Deg. C
Air	1088 ft. per sec.
Water	4728 ft. per sec.
Fine Wood	10900 ft. per sec.
Brick	11980 ft. per sec.
Steel	16360 ft. per sec.

An inspection of the data given in this table shows that sound travels very fast, about 1/5 of a mile per second in air, and about three miles per second in steel. A sound travelling in the steel structure of a building 260 feet high would require 260 feet divided by 16,360, or 0.0159 second to pass from basement to roof.

Action of Materials on Sound—When sound waves in one medium encounter a second medium with a different elasticity or density, their regular progression is disturbed. Part of the energy is thrown back in the form of reflected waves, part is absorbed in the second medium, and part is transmitted—the relative amounts depending on the changes in elasticity and density of the second medium compared with the first, that is, in accordance with the change in the velocity of sound. (See Figure 2)

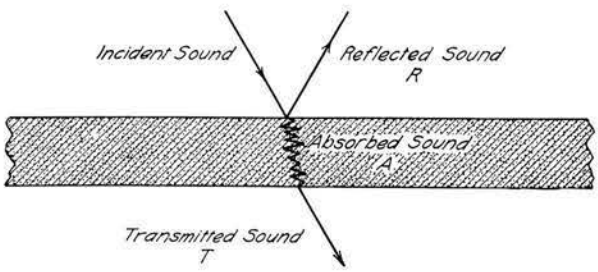


Fig. 2. Reflection, Absorption, and Transmission of Sound

A porous material like hairfelt presents little resistance to sound. The reflection is small, but the absorption in porous channels may be quite

Sound-Proof Partitions (Continued)

large. What is not reflected and absorbed is transmitted. If the sound waves generated in a room meet solid plaster walls of sufficient rigidity they will suffer a reflection of over 99 per cent. because of the large change in the elasticity and density between air and solids. If the ventilator opening is encountered instead of a wall there is no change in the medium and the waves progress with little hindrance through the continuous air passage, being confined in the ventilation duct by reflection from the metal walls. In a similar way sound vibrations generated in the solid matter of a building structure are confined to the structure by almost total reflection at the air boundaries and will pass with little interruption through the continuity of steel and concrete to distant parts of the building. These vibrations may be converted into sound waves in air where a wall or other structural member is set into sympathetic lateral vibration.

Absorption of Sound—When air passages in which sound is passing become small in cross-section, friction that converts the wave energy into heat occurs between the sides of the passage and the oscillating air particles. Sound entering a small crack in a thick wall may be completely absorbed before emerging on the other side.

The channels and interstices in carpets, hairfelt, and other porous materials, act in the same way in the absorption of sound energy. The absorption and transmission of sound vary with the thickness of the absorbing material but not in direct proportion. For example, if 1-inch of hairfelt stops 10 per cent. of the incident sound, 2-inch will stop 19 per cent., 3-inch 27 per cent., etc., that is, intensity of transmitted sound decreases according to the recognized exponential law $i=i_0a^{-x}$, where i_0 and i are the respective intensities of the sound that enters and is transmitted by the material, a is a constant, and x the thickness of the material.

The absorption of sound is an essential factor in the solution of sound insulation. It is not sufficient to reflect and scatter sound waves, for the energy cannot be destroyed in this manner; it must be absorbed, that is, converted by friction into heat energy.

Transmission of Sound—Sound waves in air may be transmitted through an obstructing medium in three ways. First, they may pass through the air spaces of a porous material. Second, they may be transmitted by modified waves in the new medium. In this process sound compressions and rarefactions progress rapidly through the air, moving the molecules successively as they pass in somewhat the same way as a gust of wind blows the separate stalks in a wheat field. On reaching a solid partition the forward motion is hindered, particularly if the molecules of the new material are massive and resist compression. In this case most of the energy is reflected and only a small proportion progresses through the wall. On meeting a further discontinuity of material, such as wood or air, the waves are again affected, until finally a part of the energy emerges. Third, sound may be transmitted by setting a partition as a whole in vibration. The partition then acts as an independent source of waves, setting up compressions and rarefactions on the further side and giving a sort of fictitious transmission. If the partition is rigid and massive the vibrations are small and very little sound is transmitted; if the partition is thin and flexible a considerable amount of energy is transferred. Usually in building constructions the partitions are complex, as for example plaster on wood lath and studding act in a manner similar to drum heads and transmit sound. Hard plaster on wire lath presents a different with a modified action on the incident sound. The transmission of sound involves a number of phenomena and is not a simple matter. It depends essentially on the character of the structure through which sound is transmitted and can be calculated only for simple cases of homogeneous materials of known constants.

Insulation of Sound in Buildings

Two Types of Sound in Buildings—Two types of sound should be considered in the problem of insulation in buildings. One type includes sounds that are generated in the air and that progress through the air to the boundaries of the room; the other is composed of compressions generated in the building structure by motors, elevators, and street traffic. The insulation of these disturbances is best accomplished by considering the actions of sound described in the preceding discussion. Several suggestions for soundproofing are given in the paragraphs immediately following.

Insulation of Sounds in Air—Sounds of moderate intensity such as those generated by the human voice or a violin may be stopped with comparative ease if the walls of the room are continuous and fairly rigid. The more vigorous sounds of a cornet, trombone, etc. would require especially heavey walls or else double partitions. Any breaks in the walls for ventilators, pipes, or doors should be guarded by effective insulation.

Insulation of Building Vibrations—Compressional waves generated in the building structure pass readily along the continuity of solid materials, and, as they have more paths for escape, are more difficult to insulate than sounds in air. Moreover, they may create trouble when they cause a wall or floor to vibrate. The insulation is based on the same procedure as that used for air sounds; namely, to interpose a new medium differing in elasticity and density. An air space in masonry would be effective if not bridged over by solid material but, since this is impossible for ordinary building constructions as the weight of bodies necessitates contact for support, an approximate insulation is sought by using air-filled substances like dry sand, ground cork, hairfelt, or flax, that possess but little rigidity but are capable of sustaining a floor or a partition that is not too heavy.

Need for Experimental Data—The preceeding discussion indicates from the standpoint of theory how sound waves will act under given conditions and how they may be controlled. Calculations may be made for a few simple cases of more or less homogenous materials, but for the complex structures usually found in buildings the present theory is inadequate to give trustworthy information. In

Sound-Proof Partitions (Continued)

view of this situation the procuring of data by direct experimental tests is quite desirable, particularly for the transmission of sound through materials both homogeneous and complex. Information about the absorption of sound is also needed. The following section gives in historical order descriptions of experimental investigations that have been completed or are now in progress.

Conclusions

Summary of Conclusions and Recommendations—The information herein contained was drawn from three sources; the theory of the behaviour of sound waves, experimental investigations of the effect of materials on sound, and examples of sound-proof installations. The details of this information, while drawn from different sources and apparently unrelated, coordinate in a satisfactory way in setting forth similar conclusions.

Some of the more general principles and recommendations are stated in the following paragraphs, but the details and comments necessary for a more comprehensive conception of the problem of sound-proofing are to be found in the descriptions throughout the bulletin.

Sound may be transmitted from one side of a partition to the other in three ways; it may progress through continuous air passages, it may pass as an elastic wave through the solid structure of the partition, or, by setting the partition in vibration, it may originate sound waves on the further side.

These actions are quite readily understood by remembering that sound consists of a series of compressions and rarefactions that progress rapidly through a medium without interruption unless they meet a new medium with a different elasticity or density. For instance, sound waves in air proceed without hindrance through air passages, such as ventilation openings in a partition. If, however, the passages are small in cross-section, as in the case of a porous material, the progress is hindered and a certain amount of absorption of the energy takes place, due to the friction set up between the vibrating air column and the sides of the pores.

In case the partition is impervious to air, the direct progress of the waves is interrupted. A thin partition is set in vibration and thus originates a new waves on the side opposite the incident sound. For a thicker, more rigid partition, the vibrations are smaller and a very considerable part of the energy is reflected. The transmission in this case takes place by compressional waves communicated to the solid material of the partition. The amount of energy thus transmitted is usually quite small.

In view of these considerations a sound-proof partition should be as rigid and free from air passages as possible. For effective sound-proofing of a group of rooms, the floors, partitions, and ceilings between adjacent rooms should be made continuous and rigid. Any necessary openings for pipes, ventilators, doors, and windows should be placed in outside or corridor walls where a leakage of sound will be less objectionable.

In case the sound is generated in the building structure, as the vibrations set up by a motor fastened to the floor, the compressional waves proceed through the continuity of solid materials. In order to stop them, it is necessary to make a break in the structure so as to interpose a new medium differing in elasticity and density. For instance, the vibrations of a motor may be minimized by placing a layer of hairfelt, or similar air filled material between the supporting base and the floor. Where the machine is quite heavy, footings may be made of alternate layers of asbestos, lead, and leather.

Bolting through this material will reduce the insulation, because the vibrations in this case will pass easily through the bolts to the floor. The insulation should thus be left without any bridging over of the discontinuities. Air gaps in masonry will be effective if the air space is not bridged over at any point. A floor floated on sand, sawdust, or hairfelt would approximate this condition. The edges of the floor should be insulated from the walls by felt or similar material.

Especial attention should be paid to the ventilation system. All effective sound proof constructions either omit entirely a ventilation system or else construct it in some special manner to avoid transmission of sound. In some buildings air is supplied and withdrawn from rooms by individual pipes that are small in diameter and extend without break from the air supply chamber to the rooms. This results in considerable friction between the walls of the pipes and the air, with a resultant weakening of the sound waves. Without some efficient control of the transference of sound through the ventilation system it is a waste of effort to construct sound proof walls, double doors, and other contrivances for insulation.

When sound-proofing a building all details should be considered with respect to the liklihood of transmission of sound. Each room, as far as possible, should be made an insulated unit by means of air spaces or air-filled materials that separate it from surrounding walls. Pipes and ventilators should be so installed as to minimize the chance of transfer of sound. Patent doors are now available that will close the door space at top, sides, and bottom. In case a troublesome sound is generated in the room, it may be minimized by installing absorbing material on the walls.

The absorption of sound is an essential feature for sound-proofing. Reflecting sound and scattering it still leaves it with energy. It must be absorbed; that is, converted into heat energy by friction, before it is eliminated as sound. This means that carpets, furniture, draperies, etc., should be present, or if greater absorption is desired, hairfelt or similar materials must be installed.

The insulation of sound is a complex problem and a successful solution is obtained only when all the possibilities of transfer of sound are anticipated and guarded against. While many things may be learned from further experience and much may be gained from additional theory, enough has been revealed to give encouragement to the belief that sound-proofing may be prescribed in the future with some of the certainty that now attends the acoustic design of auditoriums.

Cahier des Charges

et Conditions Generales auxquelles sont soumis les Entrepreneurs de Travaux

Il nous a paru intéressant de publier ici un exemplaire des Conditions générales qui précèdent le Cahier de Charges, et auxquelles sont soumises les entrepreneurs français. Nous en avons retranché tout ce qui avait trait au *rabais* sur la série, et remplaçé ces expressions qui n'ont aucune signification ici, par le *prix unitaire* qui sertert quelquefois à établir le choix d'un soumissionnaire. Ce document a été rapporté de France par monsieur Eugène Payette et déposé aux archives de l'Association des Architectes de la Province de Québec.

Article Premier

L'entrepreneur traite à forfait ou au métré.

Toutes les clauses et conditions contenues dans le présent cahier des charges sont d'une application rigoureuse, et aucune d'elles ne peut être réputée comminatoire.

L'entrepreneur agréé pour exécuter les travaux le sera sur la proposition de son chiffre, si c'est à forfait, et suivant son prix unitaire, si c'est au métré et de nos conditions acceptées par lui, qui se trouveront réglées par un marché fait en double sur timbre et signé par chacune des parties contractantes.

Article 2

En cas de forfait, le prix en bloc devra être accepté par le propriétaire et contrôlé par l'Architecte. Il ne sera donc admis, une fois le contrôle fait, aucune répétition ni réclamation, à moins de changements autorisés par ordre écrit de l'Architecte et contenant très exactement l'objet du changement; le prix en sera appliqué d'après la série unitaire énoncée au marché. Il en sera de même pour les travaux non exécutés qui seraient à déduire du forfait.

Article 3

Il est bien convenu que si, dans les plans et devis descriptif, il avait été omis divers objets nécessaires à la construction et à sa parfaite confection, l'entrepreneur ne pourrait arguer d'omission, imprévus ou défaut d'explication pour se refuser à faire et à fournir ce qui serait jugé indispensable par l'Architecte, et ce, sans indemnité, attendu que le prix à forfait comprend tout ce qui peut être nécessaire pour parfaire à une construction rationnelle suivant son espèce et parfaitement exécutée suivant les règles de l'art.

Article 4

Les travaux commenceront et devront être rigoureusement terminés aux époques indiquées au marché, sous peine d'une indemnité par jour de retard, qui sera déterminée audit marché.

Article 5

L'entrepreneur est seul et personnellement responsable de tous les retards causés à l'exécution de son entreprise constatés par l'Architecte; s'il y avait lieu, le propriétaire pourrait obtenir son remplacement, et ce, sans préjudice des dommages-intérêts causés par le retard apporté dans la mise en état d'habitation de la construction.

Article 6

L'entrepreneur est responsable de tous les travaux jusqu'au procès-verbal de leur réception qui aura lieu dix jours après la prise de possession, sans préjudice de la responsabilité qui lui est imposée par les lois et règlements du Code civil.

De plus, pendant six mois après la réception, l'entrepreneur devra tous les jeux à la menuiserie et quincaillerie, les relevés partiels de pavage, les réfections d'enduits avariés ou détachés, etc.. et faire, en un mot, tout entretien résultant de la nature des travaux et non de l'usure.

Article 7

L'entrepreneur sera tenu de suivre personnellement ses travaux et d'assister exactement aux réunions qui seront indiquées par l'Architecte afin de recevoir ses instructions.

Article 8

Il devra en tous temps être représenté par un chef d'atelier agréé par l'Architecte, qui, en son absence recevra les ordres et instructions.

Article 9

Il ne pourra sous-traiter ou marchander qu'aux entrepreneurs ou tâcherons agréés par l'Architecte et par consentement exprès et par écrit.

Article 10

Tout ouvrier, chef d'atlier ou personne quelconque employée aux travaux, pour cause d'insubordination, incapacité ou improbité, en sera renvoyé sans délai, sur l'ordre de l'Architecte.

Article 11

L'entrepreneur sera tenu de vérifier les cotes de ses plans et détails d'exécution afin de pouvoir en référer, s'il y avait lieu, en temps utile avec l'Architecte pour obtenir des renseignements plus exacts et des ordres plus précis d'exécution afin d'éviter toute erreur ou fausse interprétation.

L'entrepreneur ne devra prendre aucune cote à l'échelle des plans.

Cahier des Charges—continued

ARTICLE 12

Les travaux exécutés sans ordre contrairement aux prescriptions, ainsi que tous ceux qui seront reconnus défectueux ou exécutés avec des matériaux autres que ceux indiqués au devis descriptif seront démolis sur l'ordre qu'en donnera l'Architecte et refaits aux frais de l'entrepreneur.

ARTICLE 13

Tout vice caché découvert à n'importe quelle époque entrainera la démolition et la réfection des ouvrages quelle que soit l'importance de la réfection, et l'entrepreneur restera responsable de toutes ses conséquences.

ARTICLE 14

L'entrepreneur devra, chaque fois que la demande lui en sera faite par l'Architecte, produire immédiatement les lettres de voitures, factures ou autres pièces utiles pour justifier la provenance et a qualité des matériaux employés et le prix de déboursé desdits matériaux ou autres fournitures quelconques.

ARTICLE 15

Tous les règlements de police et de voirie existants seront observés par l'entrepreneur et à ses frais, risques et périls pour alignements, garde, clôture, surveillance, éclairage et propreté du chantier.

ARTICLE 16

L'entrepreneur sera seul responsable des conséquences de tous accidents mortels ou non, incendies, dommages, dégradations ou délits quelconques, pouvant être attribués à ses travaux ou au fait de ses ouvriers. Cette responsabilité aura lieu tant à l'égard du propriétaire, qu'à l'égard des tiers.

ARTICLE 17

Chaque entrepreneur devra payer, au prorata de son entreprise, les frais de gardien de jour et de nuit, ceux d'installation provisoire pour les besoins des ouvriers, ainsi que toutes dépenses de barrière et d'éclairage.

ARTICLE 18

Les frais de timbres, détails et autographies des plans, cahiers des charges et marchés seront supportés par chacun des entrepreneurs moyennant pour cent, suivant le montant de leurs forfaits ou règlements de mémoires, et ce quantum de frais est en plus et en dehors des honoraires et déboursés dus à l'Architecte par le propriétaire.

ARTICLE 19

Tous les gravois seront enlevés par l'entrepreneur et à ses frais, tous les lieux occupés par lui seront laissés complètement propres pour l'habitation immédiate.

ARTICLE 20

Le propriétaire se réserve la propriété entière des fossiles, monnaies, démolitions et objets d'art qui seraient trouvés dans les fouilles et démolitions, lesquels devront lui être remis immédiatement. L'entrepreneur sera indemnisé par celui-ci des frais qu'il aura faits pour la conservation et le transports desdits objets.

Le propriétaire se réserve également la propriété des matériaux trouvés dans les fouilles, tels que gravier, sable, moëllons, pierre meulière, pierre de taille, etc. L'entrepreneur n'aura droit qu'à un prix de triage, chargement, transport et rangement.

ARTICLE 21

Les attachements, s'il y a lieu, seront relevés en double, sur des feuilles spéciales présentées en temps opportun à la vérification de l'Architecte.

Lorsqu'un entrepreneur refusera de signer un attachement ou qu'il ne le signera qu'avec réserve, un délai de dix jours lui sera accordé, à dater de ce moment, pour formuler ses observations et prétentions par écrit.

ARTICLE 22

Toutes les contestations quelconques qui pourraient s'élever au sujet de l'exécution des travaux, des clauses et conditions des marchés, des plans, devis descriptif et du présent cahier des charges, seront jugées souverainement par deux arbitres choisis par les parties; à défaut d'accord entre ces deux arbitres, ils en choisiraient un troisième pour les départager.

Les deux arbitres décideront comme amiables compositeurs en dernier ressort, sans être tenus aux formes et délais de la procédure; leurs décisions ne pourront être attaquées par voie d'appel, requête civile ou recours en cassation.

Durant le délai qu'entraîneront les contestations, les travaux seront continués dans toutes les parties, à moins que l'Architecte n'ordonne la suppression des travaux en litige.

ARTICLE 23

L'entrepreneur sera civilement responsable, même à l'égard des tiers, des dégâts et dégradations commis par les ouvriers pendant le cours des travaux, ainsi que de toutes les soustractions qui seront faites par eux.

ARTICLE 24

Toutes les eaux nécessaires à l'exécution des travaux de maçonnerie et autres seront payées par l'entrepreneur de maçonnerie; l'abonnement des eaux ne sera à la charge du propriétaire qu'à partir du jour où la réception générale des travaux aura été faite.

ARTICLE 25

L'entrepreneur devra, dans le délai réglementaire, faire à la mairie la déclaration de cette construction ainsi que la demande d'alignement et en remettre le reçu à l'Architecte.

ARTICLE 26 ET DERNIER

Si pour une cause quelconque, l'enregistrement des conventions devient nécessaire, les frais en seront supportés par l'entrepreneur seul.

ADHESION

Les soussignés
après avoir pris connaissance du cahier des charge ci-dessus, dont copie a été remise accepter ce cahier des charges et soumette à toutes les conditions y insérées pour les travaux dont l'entreprise nous a été concédée par Monsieur propriétaire, demeurant à

suivant marché en date de ce jour.

Fait double et de bonne foi à

The Secretary's Page

ALCIDE CHAUSSÉ
Honorary Secretary Royal Architectural Institute of Canada

DURING the sessions of the Tenth International Congress of Architects held in Brussels, Belgium, the "Comité Central des Congrès Internationaux des Architectes" (Central Committee of the International Congresses of Architects) was reorganized, with the following membership:

Belgium, four delegates;
Denmark, two delegates;
United States, from five to ten delegates;
France, fifteen delegates;
Great Britain, nine delegates;
Canada, two delegates;
Spain, six delegates;
Italy, eight delegates;
Mexico, two delegates;
The Netherlands, three delegates;
Portugal, three delegates;
Switzerland, three delegates;
Sweden, three delegates;
Poland, two delegates;
Uruguay, two delegates.

Until proper reparations have been made, it was resolved that the following countries which did not respect works of architecture could not be admitted into this Committee: Germany, Austria, Russia and Turkey.

The Eleventh International Congress of Architects will be held at Washington in 1925.

The following officers were elected:

Honorary Presidents: Messrs. Victor Baltard, H. M. Lefuel, A. N. Bailly, Valère Dumortier, Alfred Normand, R. Valesquez-Bosco, John Belcher, Otto Wagner, G. B. Giovenale, J. B. Dewin. (Presidents of the ten International Congresses of Architects.) Messrs. H. Daumet, Dr. P. J. H. Cuypers, Charles Girault (Past Presidents of the "Comité Permanent").

President: Mr. J. Caluwaers, No. 290, Avenue Louise, Brussels.

Vice-Presidents: Messrs. F. R. Allen, Sir Aston Webb, G. Moretti, H. P. Nénot, J. Th. J. Cuypers, J. W. Simpson.

General Secretary: Mr. J. M. Poupinel, No. 22, Avenue Jules-Janin, Paris, France.

Secretaries: Messrs. F. de Vestel, Cart de Lafontaine, G. O. Totten, Cabello y Lapiedra, G. Harmand.

Treasurer: Mr. V. Blavette, No. 114, Boulevard St.-Germain, Paris, France.

Councillors: Messrs. Alcide Chaussé, G. Clason, Dr. G. Gull, Th. Jorgensen, N. Mariscal, J. L. Monteiro, Valasques-Bosco.

The delegates for Canada are Mr. Alcide Chaussé, elected in 1904 and Mr. John S. Archibald, elected in 1906.

* * *

The Annual Conference of the Royal Institute of British Architects and the Allied Societies will take place at Oxford (England) from July 9th to 12th, 1924.

It is confidently expected that a "record" number of members of the Royal Institute of British Architects and the Allied Societies will assemble to take part in the meetings, the banquet, the visits and the excursions which are now being arranged by the Executive Committee of the R.I.B.A.

The Berks, Bucks and Oxon Architectural Association will be the hosts of the conference.

A preliminary programme will be issued presently but the dates—July 9th to 12th—are settled.

The members of the Royal Architectural Institute of Canada are specially invited, and are urged to arrange to attend the R.I.B.A. Conference, ladies will be particularly welcomed and it is anticipated that a larger number than ever before will be present.

* * *

The Sixteenth General Annual Assembly of the Royal Architectural Institute of Canada will be held at Hamilton, Ont., sometime in the last week of August or the first week of September, the exact date to be decided by the Hamilton Chapter of the Ontario Association of Architects.

The Committee of Arrangements for the coming General Annual Assembly is composed of Messrs. Lewis H. Jordan (President), Stanley T. J. Fryer, Alcide Chaussé (Honorary Secretary) and of two or more Hamilton members to be appointed by Mr. Stanley T. J. Fryer.

The Programme is being prepared and will contain amongst other important matters the amendments of the By-laws of the R.A.I.C.

Every architect should attend this coming General Annual Assembly.

* * *

The chairmen of the various committees of the R.A.I.C. are:

Mr. David R. Brown, Legislative Committee;
Mr. John S. Archibald, Committee on Relations;
Mr. J. P. Hynes, Publicity Committee;
Mr. Eugène Payette, Finance Committee;
Mr. Andrew L. Mercer, Co-operation Committee;
Mr. J. H. G. Russell, Practice Committee;
Mr. Frank P. Martin, Research Committee;
Prof. Ramsay Traquair, Educational Committee;
Prof. Cecil S. Burgess, Standardization Committee.

Reports on Activities of Provincial Associations

EDITOR'S NOTE

Secretaries of Provincial Associations and Ontario Chapters will please be advised that all reports of their activities to be inserted in the next quarterly issue of the R.A.I.C. Journal must be mailed to the office of publication, 160 Richmond St. West, Toronto, not later than July 15th, 1924.

The Alberta Association of Architects

Secretary
E. Underwood, Canada Permanent Building, Edmonton

The Architectural Institute of British Columbia

Secretary
Fred L. Townley, 325 Homer Street, Vancouver

Manitoba Association of Architects

Secretary
E. Fitz Munn, P.O. Box 1404, Winnipeg

At the last annual meeting of the Manitoba Association of Architects, it was decided to hold an exhibition of drawings next fall. This exhibition will be displayed in the rooms of the Winnipeg Gallery and School of Art and it will include drawings, photographs, models and details of executed work, projects and sketches and schemes of decoration, water colors and sketches from nautre and examples of other graphic and decorative arts. It is hoped that this presentation of the varied work of the architect will bring forcibly to the attention of the public the value and significance of this work and the service which the profession is equipped to render.

* * *

The Department of Architecture created by the University of Manitoba, at the instance of the Manitoba Association of Architects, the year before the war, has now completed its eleventh session. Before it had fairly got under way its ranks were depleted at the call of duty, all of its students enrolling in the service. None of these who went overseas returned to finish the architectural course. A new body of students had to be built up and the number has gradually increased so that this year six men are looking forward to graduation. The graduating thesis have for subjects, each student choosing his own, a church, a community theatre, an office building, a medical college, a large school, and a community hall. These projects include in each case the calculation of typical features of the structure, walls, foundations, columns, slabs, girders, trusses, with details indicated on large scale drawings, and the working out of the schemes of heating and ventilation, electrical lighting, plumbing and acoustics, the whole embodied in the usual form in eighth-inch scale drawings traced on linen.

While the successive quarters which this department has occupied are somewhat casual, the equipment is excellent, the University supporting it by generous annual grants. The result is that it has a good and ever-increasing collection of books, periodicals, photographs, prints, slides, casts and original drawings, which cover the field of architecture and decoration fairly well and include besides somewhat of city planning and landscape architecture as well as painting and sculpture.

The Manitoba Association of Architects gives an annual scholarship of $100 to the student of either the first, second or third year who obtains the highest aggregate of marks.

The University, in co-operation with the Board of Examiners, conducts the examinations for the license to practice. Graduates of the department receive the license after a period of two years in an architect's office.

The department functions as a part of the Faculty of Engineering and Architecture of the University.

* * *

At the instigation of the Canadian Council of Agriculture, an Economic Conference was held in Winnipeg on March 12th and 13th. This was attended by delegates representing financial, business, professional, agricultural, labour and transportation interests.

The Manitoba Association of Architects was represented by the president and Messrs. J. H. G. Russell and W. Fingland.

As a result of this conference a permanent committee has been formed to study the various matters brought before the meeting and to prepare a report for submission to the next annual meeting. Our

Reports on Activities of Provincial Associations
(Continued)

association has been requested to appoint a delegate to this permanent committee and will be represented by the president.

* * *

Committees of the Association are at present working on a revision of the schedule of fees and on the drafting of a proposed form of contract between owner and architect. We are indebted to the Quebec association for their courtesy in sending a copy of the contract adopted by them.

Ontario Association of Architects

Secretary
R. B. Wolsey, 96 King Street West, Toronto

President Stanley T. J. Fryer's recent interview with Premier Ferguson regarding legislation to regulate the practise of Architecture in Ontario was not particularly satisfactory. The Premier listened to an explanation of our proposal and promised that the matter would have the consideration of the Cabinet. The following is a copy of his formal answer to our request that the act be put through this session:—

Dear Mr. Fryer:—

The question of legislation to regulate the practice of architecture, along with a number of other subjects, has had the consideration of the Government.

Owing to the tremendous amount of work that has been imposed upon the new Ministers, and the many subjects that have to be dealt with in connection with the session, it was felt that this matter was one that was not of immediate pressing importance and might well be left in abeyance for the present time.

Yours sincerely,
G. H. Ferguson.

At a meeting of the council, held at Toronto on February 16th, this was discussed. It was decided that it will be necessary to do some definite propaganda work to secure a better reception to our request. A committee of two members was struck.

* * *

A report of the board of Admission recommending the acceptance for membership of five new members was adopted. They are as follows:—

John E. Walker, of Walker & Gibson, 78 King St. E., Toronto; Cecil C. King, of George, Moorhouse & King, 65 Victoria St., Toronto; Murray A. Brown, Confederation Life Building, Toronto; F. J. MacNab, Bell Telephone Co., Toronto; J. B. K. Fisken, 23 Scott St., Toronto.

* * *

The secretary was instructed to write to the Deputy Ministers at Ottawa asking their co-operation in reducing the practice of employees of the department doing architectural work on the side.

* * *

Mr. W. G. Raymore, First Year, Department of Architecture, University of Toronto, has been recommended for the Ontario Association of Architects' Architectural Scholarship.

Mr. W. C. Cooper, Fourth Year, Department of Architecture, University of Toronto, and Mr. H. H. Haggans, Fourth Year, Department of Architecture, University of Toronto, have been awarded Bronze Medals of the Toronto Architectural Guild.

* * *

The council passed a vote of sympathy with the widow of Mr. Andrew Riddell, late secretary of the Border Cities Chapter, O.A.A., who died recently.

* * *

A resolution was passed in favor of holding a combined convention in conjunction with the Royal Architectural Institute of Canada. The council is in favour of holding the convention in Toronto or Hamilton, and the president was instructed to communicate with the Institute with a view to arranging this.

* * *

It was resolved that in the opinion of this association, pensioners of the Government of Canada for services in the Great War are entitled to every consideration, and the requests which the Amputation Association is at present making are reasonable and the council suggests to the authorities that they give them most sympathetic consideration.

* * *

The association appointed a special committee to undertake the publication of a book of designs for small houses. All members have been requested to submit designs as it is the intention of the committee to have the book as representative as possible of the entire association. It is not inteeded that the monetary return from this work will be attractive to the architects, but the importance of this book as a guide to those who are considering building and the publicity value to the individual architect as well as the association cannot be over-emphasized. It is hoped that by improving the design of the average small house, the taste of the public at large will be cultivated, thus influencing the design of the more costly houses which might otherwise be built without an architect's service.

BORDER CITIES CHAPTER, O.A.A.

President
Gilbert J. P. Jacques, 3 Ouellette Avenue, Windsor

The Chapter regrets to announce the death of its Secretary, the late Mr. A. J. Riddell

Reports on Activities of Provincial Associations
(Continued)

HAMILTON CHAPTER, O.A.A.

Secretary
J. A. Robertson, Bank of Montreal Chambers, Hamilton

LONDON CHAPTER, O.A.A.

Secretary
L. G. Bridgman, Bank of Commerce Building, London

OTTAWA CHAPTER, O.A.A.

Secretary
B. Evan Parry, Federal Department of Health, Ottawa

TORONTO CHAPTER, O.A.A.

Secretary
I. Markus, 223 Howard Park Avenue, Toronto

A special committee consisting of Col. Moorhouse, John Pearson and F. H. Marani was appointed to draft up a report on zoning and height limitation of buildings. In connection with this committee it was decided to have a deputation appear before the Toronto City Council to protest against a permit being granted for the erection of a twenty-one storey building at the corner of Adelaide and Victoria Streets in contravention of the city by-laws.

* * *

A recommendation was sent on to the Ontario Association of Architects to amend the present by-laws so as to make it compulsory for members of the association to become members of their local chapters.

* * *

A resolution was adopted deploring the loss through death of one of our esteemed members, the late C. H. Acton Bond.

* * *

The publicity committee of the association has been requested to ask members to refrain from voicing their opinions in the public press on matters affecting the architectural profession without first consulting their local chapter.

* * *

A special committee, consisting of W. L. Somerville and Martin Baldwin, was appointed to consider and report to the chapter on any suggested amendments to the city by-laws made by members.

* * *

A letter was received from the Contracting Plasterers' Association relating to the patching clause in plastering specifications. The chapter replied that, while sympathizing with their request and although it was felt that a better understanding would be advisable between the architects and plastering contractors, that the chapter, however, were unable to take any definite stand in connection with this matter as it would tend to interfere with individual practise.

* * *

Toronto Chapter, Ontario Association of Architects, entertained the Hamilton Chapter on Saturday, March 29th. About twenty Hamilton architects came over and were shown through the new Union Station by Mr. John M. Lyle, after which they were taken through Hart House by Prof. C. H. C. Wright.

In the evening the Hamilton architects were the guests of the Toronto Chapter at a dinner held at Hart House, at which about fifty architects were present. Col. Walter N. Moorhouse, chairman of the Toronto Chapter, welcomed the visitors. Mr. G. T. Evans, chairman of the Hamilton Chapter, thanked the Toronto Chapter for their welcome and extended an invitation to visit Hamilton in the near future. Other speakers were: Mr. Stanley T. J. Fryer, president of the Ontario Association of Architects, who spoke of the work of the association; Prof. C. H. C. Wright, who spoke on Hart House, and Mr. J. P. Hynes, vice-president of the Royal Architectural Institute of Canada, who spoke of the new official journal of the Institute.

The Province of Quebec Association of Architects

Secretary
A. Beaugrand-Champagne, 345 Bloomfield Ave., Montreal

The Province of Quebec Association of Architects enters on this season with every promise of quiet and steady routine work for all its committees, undisturbed by serious controversies, or constitutional changes.

Several interesting questions affecting the jurisprudence of the Province in respect to the professional status are claiming attention. It is to be borne in mind that an architectural body officially recognized as a closed corporation has very different powers and responsibilities from those of a voluntary society. The present council, while fully alive to certain advantages inherent in the voluntary basis, can be relied on to preserve intact those other

Reports on Activities of Provincial Associations
(Continued)

benefits which the public and the profession derive from the existence of a privileged body.

In connection with the exhibition of Canadian architecture, both new and old, appearing this summer respectively in the Empire Architecture Exhibition and in the Canadian Pavilion at Wembley, the lack of data as to period and authorship of our older buildings has been brought home to those concerned. The P.Q.A.A. council is giving some thought to the problem of keeping records of all future work done by its members so that as time goes on authentic information will be available.

The somewhat costly undertaking of a record up to 1924 of all buildings of artistic or historic interest in the province with respect to date and attribution is also under consideration. The suggestion that the universities undertake the record down to 1900 has been made.

The council proposes again to organize a function of the kind which proved so successful and enjoyable a year ago when Mr. Swartwout, of New York, was the guest of honour and an exhibition of the "Tribune drawings" was on view at a dinner. This event will take place in the last week in April. Arrangements are being made for a notable speaker, an exhibition and the appropriate creature comforts in harmony with such an occasion.

Saskatchewan Association of Architects

Secretary
Francis B. Reilly, Westman Chambers, Regina

Obituary

CHAS. H. ACTON BOND, R.A.I.C.

Following an operation for appendicitis, Chas. H. Acton Bond, architect, of 8 Indian Grove, Toronto, died suddenly on April 29th, 1924, in St. Michael's Hospital.

The late Mr. Bond was one of Toronto's prominent architects and carried on practice at 2 Wellington Street East for over twenty-six years. Deceased was born at Chelsea, England, and came to Canada in 1886. Prior to coming to Toronto he had been in practice in New York City. Mr. Bond designed many large buildings in Toronto as well as the Canadian Power House at Niagara Falls, the Refectory Building at Queen Victoria Park, Niagara Falls, and many others.

For many years he was president of the Ontario Association of Architects. He was also a member of the Toronto Board of Trade, Arts and Letters Club, Board of Ontario School of Art and Design, and Secretary of the Public Schools Art League advisory board.

* * *

We regret to have to record the passing of the following prominent members of the American Institute of Architects:

HENRY BACON

Born—1866. Died—February 16th, 1924.

Mr. Bacon started his career in the office of McKim, Mead and White. His work includes scores of public buildings designed in the classical form. Many of these beautiful edifices testify to his genius as an artist.

His most outstanding work was the Lincoln Memorial which besides being a mighty structure is enchantingly beautiful. The Lincoln Memorial was the culmination of his art and in this masterpiece he will be remembered for many years to come.

* * *

PIERCE ANDERSON

Born—February 20th, 1870. Died—1924.

Received his early education in Harvard University. Took post-graduate degree in electrical engineering in John Hopkins University. Mr. Burnham, who afterwards became his partner, advised him to take up architecture, go to Paris and enter the Beaux Arts. This he did, passing his examinations and becoming a member of the Atelier Paulin in 1894. He returned to America in 1900 and entered the office of D. H. Burnham and Company. In 1917, the firm of Graham, Anderson, Probst and White was formed. At the death of his chief, Mr. Burnham, Mr. Anderson was appointed by President Taft to fill his place on the Fine Arts Committee with Olmsted and St. Gaudens.

LOUIS HENRI SULLIVAN

Born—In Boston, 1856. Died—In Chicago, April 14th, 1924.

Mr. Sullivan was known as the Dean of American Architects. He was educated at the Massachusetts Institute of Technology and the Ecole des Beaux Arts, Paris. His style of architecture was original in its conception. To Mr. Sullivan sky-scrapers spelt opportunity and many of them testify to his originality of design. Amongst important buildings he designed are the Transportation Building for the Chicago World Fair, the Condit Building, New York, the Prudential Building, Buffalo, the Wainwright Building and Union Trust Building, St. Louis.

* * *

BERTRAM GROSVENOR GOODHUE

Born—1869. Died—In New York City, April 14th, 1924.

Mr. Goodhue was comparatively a young man and at the very height of his career. He has been called Master of Spanish Colonial and a Master of Gothic. His buildings, however, showed that he was also master of everything he essayed in creative art.

His churches, although based on the principles of Gothic, are in every way modern in their expression. Through Goodhue's work his personal influence so great in life will continue through the lasting monuments he has left behind him.

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