

THE
JOURNAL
ROYAL ARCHITECTURAL
INSTITUTE OF CANADA

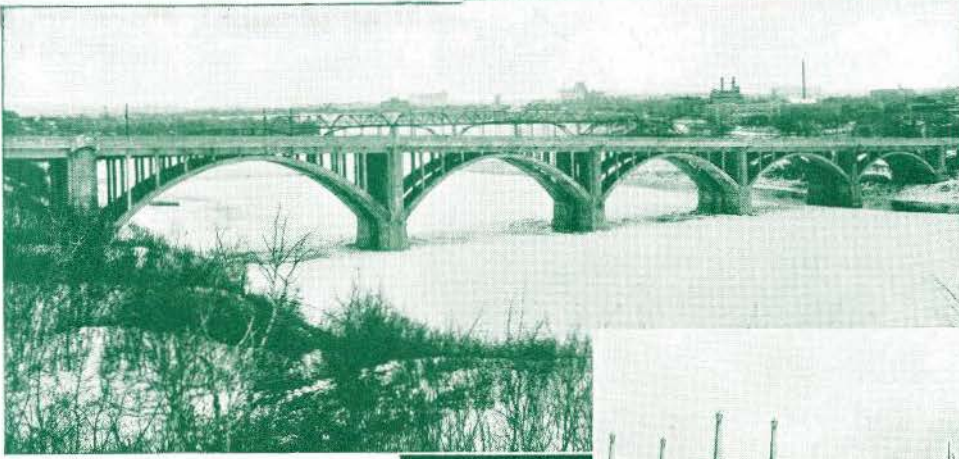


Vol. X, No. 6

JUNE, 1933

TORONTO

CONCRETE SPANS *Saskatchewan River*



BUILT as a relief measure under severe climatic conditions, the new concrete bridge at Saskatoon is an outstanding example of the adaptability of this modern material. Work was started at the end of December, 1931, and in spite of natural hazards and unusual restrictions as to machinery, handling methods and crew personnel, in keeping with relief work policy, the bridge was officially opened on November 11th, 1932, a month ahead of schedule. Both Canada Cement Kalicrete and XXX High Early Strength Cement, as well as the standard Canada Cement, were used. Arrand Construction Company, of Saskatoon, were General Contractors, under the general supervision of G. D. Archibald, City Engineer. C. J. Mackenzie, Professor of Civil Engineering, University of Saskatchewan, was Consulting Engineer.



Canada Cement Company Limited

Canada Cement Company Building
Phillips Square Montreal

Sales Offices at:

Montreal

Toronto

Winnipeg

Calgary

Concrete Construction is ALL-CANADIAN



Architects: Hutchison and Wood

Arca de entrance to the Woodhouse store in Montreal. Five complete show windows in addition to the two entrances are of Monel Metal fabricated from bar and angle stock with ornamental trim.

MONEL METAL
gives richness to
modern store fronts
and entrances

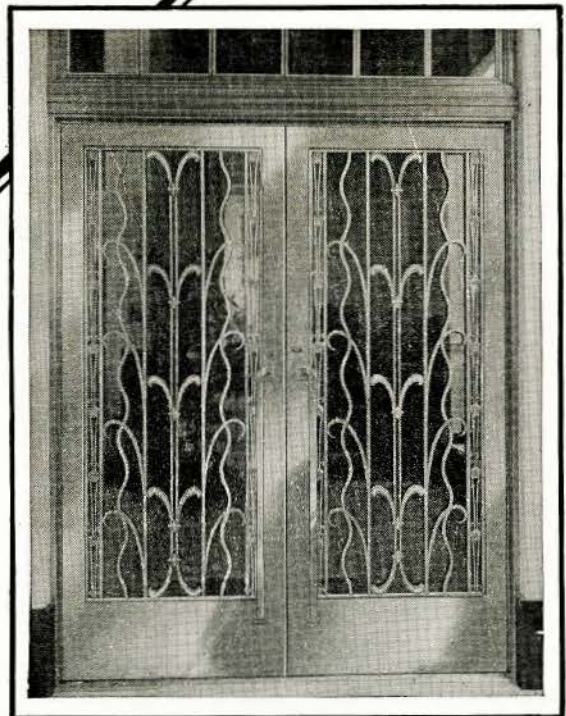
WHEN Woodhouse & Co. Limited completely modernized the front and entrances to their large departmental store in Montreal, Monel Metal was used throughout with the exception of a few bronze inserts used in the door grilles.

Whether used solely for decorative effect or in a decorative and structural combination, Monel Metal furnishes the modern answer to the pressing architectural demand for a white metal that is readily fabricated and that will withstand hard use. Monel Metal cannot rust because it is non-ferrous. It is approximately two-thirds Nickel and one-third Copper.

Due to its high Nickel content, Monel Metal is strong as steel, making it one of the most dependable materials for structural use. Being solid metal throughout, like sterling, it has no coating to come off.

We will be glad to supply further information regarding the use of Monel Metal for architectural metalwork.

Doors to store entrances are constructed of Monel Metal, welded throughout, and have ornamental wrought Monel grilles with bronze inserts worked in very cleverly with the Monel work. Metalwork executed by The Robert Mitchell Company Limited.



MONEL METAL

A PRODUCT OF CANADIAN MINES

CANADIAN NICKEL PRODUCTS LIMITED
25 KING ST. WEST, TORONTO

A Subsidiary of The International Nickel Company of Canada, Limited

Monel Metal is a natural alloy containing approximately two-thirds Nickel and one-third Copper. Since it is the product of Canadian mines, the greater use of this metal means a greater measure of prosperity for Canada.



Floored for
Quiet, Beauty and Permanence
with **MARBOLEUM TILE**



*Office in the
Crescent Building,
Montreal*

The above floor is typical of the many striking effects obtainable with Marboleum Tile which lend distinction to your premises and keep cleaning costs to a minimum. Marboleum Tiles come in an endless variety of shapes and sizes—eight plain colours, six marble effects, three Jaspe effects, to be laid with or without interlining. Ask your Architect or Linoleum Contractor about their amazingly low first cost and continued economy and also about the Dominion 5-Year Guaranty Certificate.

DOMINION OILCLOTH & LINOLEUM CO. LIMITED MONTREAL



Barrett

THE STANDARD ROOF FOR BETTER

BUILDINGS . . . for more than a generation

- Barrett Roofs represent a degree of certainty in performance that finds few equals in the building industry.
- They are the result of Barrett's long and successful roofing and waterproofing experience . . . highest quality materials developed in Barrett research laboratories and produced in Barrett factories . . . Barrett roofing and waterproofing specifications . . . Barrett application methods . . . and Barrett standards of service.
- Unmatched performance records—Barrett Roofs, 30, 40 or 50 years old and still in first class condition—are convincing evidence that *every fine building deserves a Barrett Roof.*
- Consult with Barrett or your local Barrett Roofer on any roofing or waterproofing problem.



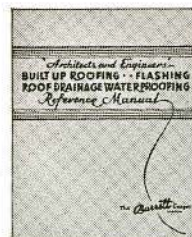
For the best roof obtainable, specify a Barrett Specification Roof (bonded for 20 years, or 15 years, depending on type). Barrett offers another famous roof—the Black Diamond—also built of Barrett quality materials and subject to Barrett Inspection Service.

The *Barrett* Company
LIMITED

MONTREAL
WINNIPEG

TORONTO
VANCOUVER

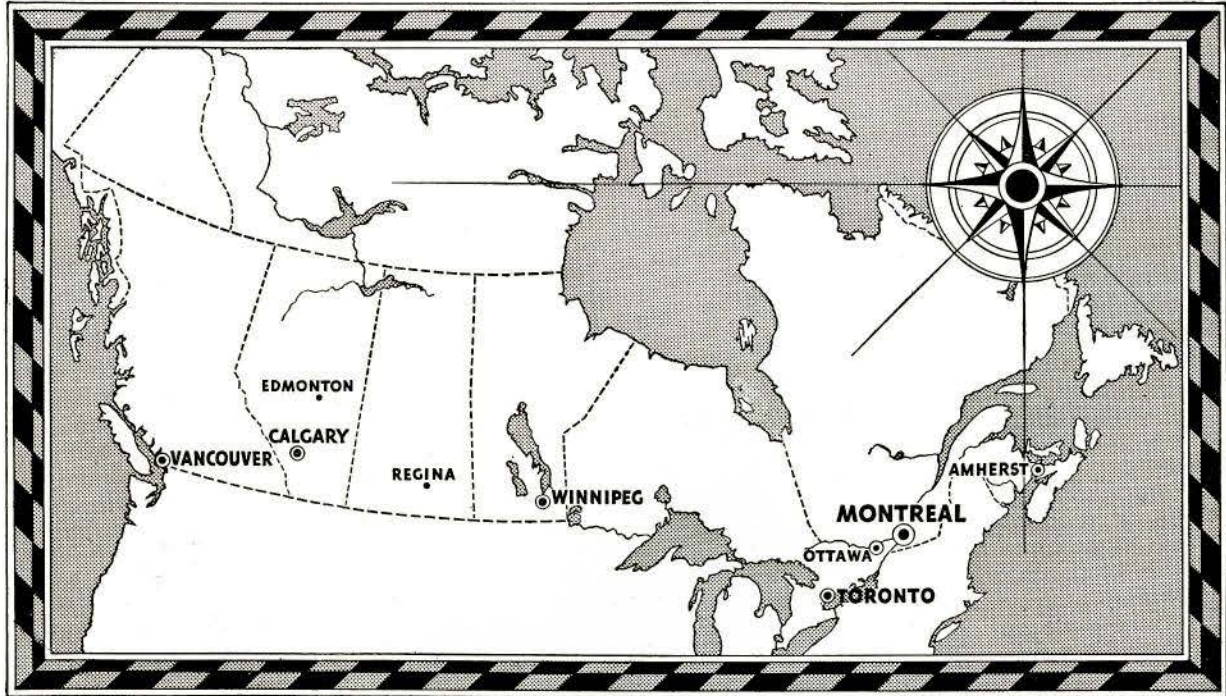
Barrett



Barrett's new 64 page *Architect's and Engineer's Built-up Roofing, Flashing, Roof Drainage and Waterproofing Reference Manual* is now available. Write for it on your firm letterhead.

THE GREATEST NAME IN ROOFING

A DOMINION-WIDE SERVICE



BRIDGES

STEEL STRUCTURES

PLATE & TANK WORK

CRANES OF ALL TYPES

MATERIAL HANDLING EQUIPMENT

HYDRAULIC REGULATING GATES
& OPERATING MACHINERY

GEAR CUTTING, FORGINGS

GENERAL MACHINE WORK, ETC.

With engineering and plant facilities located at strategic points all across Canada, the Dominion Bridge Co., Limited is equipped to promptly and adequately service Canadian industry with practically every type of stationary and movable steel structure.

This service includes the design, fabrication and erection of the steel for bridges, buildings, transportation facilities, power plants, machinery and manufacturing equipment.

Canadian owned and controlled, Dominion Bridge Co., Limited, is an integral part of the country it serves.

DOMINION BRIDGE COMPANY LIMITED

HEAD OFFICE: LACHINE (Montreal, Que.)

Branch Offices and Works

MONTREAL • OTTAWA • WINNIPEG • VANCOUVER
AMHERST • TORONTO • CALGARY

Agencies: REGINA, EDMONTON

THE JOURNAL

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

Serial No. 94

TORONTO, JUNE, 1933

Vol. X, No. 6

CONTENTS

THE FURNISHING OF THE GARDEN, BY H. B. DUNINGTON-GRUBB	105
LE BAS-RELIEF DU MUSEE DES COLONIES, FRENCH COLONIAL EXHIBITION (1931) PARIS	111
RESIDENCE OF ALLAN CASE, ESQ., ORIOLE, ONT.	114
RESIDENCE OF R. H. COOK, ESQ., REGINA, SASK.	115
THE ROYAL CANADIAN ACADEMY OF ARTS	116
DEPARTMENT OF ART, SCIENCE AND RESEARCH	116
ACTIVITIES OF THE INSTITUTE	117
ACTIVITIES OF PROVINCIAL ASSOCIATIONS	118
NOTES	119
R.I.B.A. PRIZES AND STUDENTSHIPS 1933	119
BOOKS REVIEWED	119

PLATE ILLUSTRATIONS

SUNKEN GARDEN AT PARKWOOD, OSHAWA	FRONTISPIECE
A SUNDIAL AT BOLDRE, HANTS, ENGLAND	109
FACADE PRINCIPALE (PARTIE DROITE)—DU MUSEE DES COLONIES, FRENCH COLONIAL EXHIBITION (1931) PARIS	112

PUBLISHED EVERY MONTH FOR THE
ROYAL ARCHITECTURAL INSTITUTE OF CANADA

Editor—I. MARKUS

EDITORIAL BOARD

W. L. SOMERVILLE (*F*)
PHILIP J. TURNER (*F*)
JOHN Y. McCARTER
ANDREW R. COBB

A. S. MATHERS, *Chairman*
FORSEY P. PAGE
ERNEST CORMIER (*F*)
E. J. GILBERT
EDWARD UNDERWOOD (*F*)

MURRAY BROWN
W. S. MAXWELL (*F*)
W. W. ALWARD
C. W. U. CHIVERS

PUBLISHERS: ARCHITECTURAL PUBLICATIONS LIMITED

Publication, Editorial and Advertising Offices 74 King Street East, Toronto
Chicago Representative Macintyre & Simpson, 75 East Wacker Drive, Chicago
New York Representative L. Ray Nelson, 250 West 57th Street, New York
Great Britain Representative . . C. Rowley Ltd., 53 & 54 Ave. Chambers, Southampton Row, London W.C.1, England

SUBSCRIPTIONS

Canada and Newfoundland—Three Dollars per year. Great Britain, British Possessions, United States and Mexico—Five Dollars per year.
All Other Countries—Six Dollars per year. Single Copies—Canada 50 Cents; Other Countries 75 Cents.

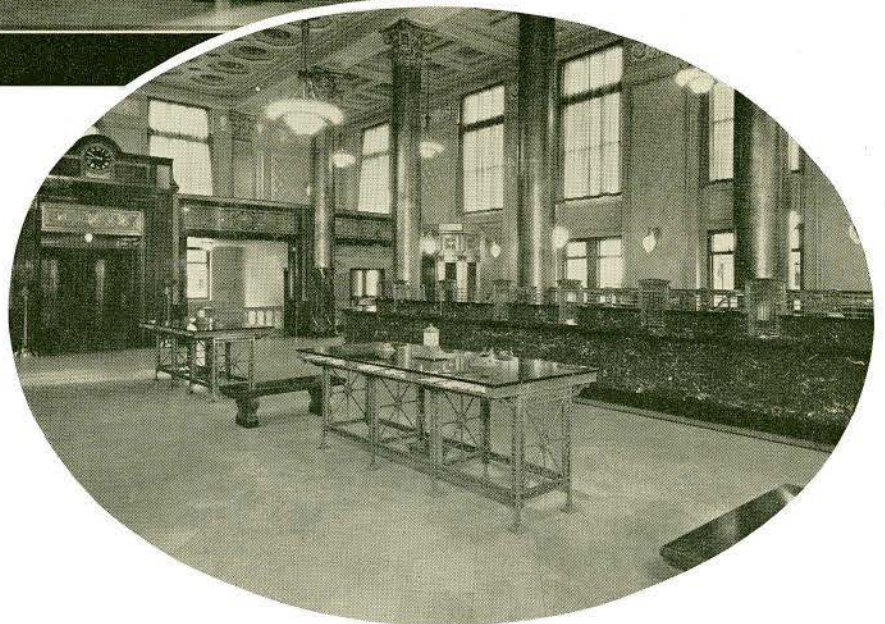


**Metalwork is Essential
to Modern Architecture**

The entire metalwork executed by the Robert Mitchell Company Limited for the recently completed Bank of Montreal Building at Calgary includes Mitchell-Gaden Panic Proof Revolving Doors with bronze enclosure screens, ornamental bronze entrance doors, counter screens, cages and cheque desks.

The excellence of the design, and the sound execution of Mitchell metalcraft symbolize the foundations of banking strength—dignity, integrity and security.

*Architect: Kenneth G. Rea, Inc.
General Contractors: Smith Bros.
& Wilson Limited*



The
ROBERT MITCHELL
COMPANY LIMITED

Saint John Montreal Toronto
Winnipeg Vancouver



SUNKEN GARDEN AT PARKWOOD, OSHAWA

Use of white marble against a dense background



VILLA ALBANI, ROME

"Sculpture and furniture must be subordinated to design if satisfactory results are to be expected."

THE FURNISHING OF THE GARDEN

BY H. B. DUNINGTON-GRUBB

Landscape Architect

SOME gardeners remind me of the Irishman who could never stop talking about the progress he was making in the construction of his cannon. Having finally succeeded in producing the hole through which the cannon ball was to pass he only needed some iron to put round it. Everybody is acquainted with the enthusiast who only lacks a garden to put round his furniture in order to complete the picture. At the opposite extreme, however, one finds another group of people who never achieve results through failure to furnish a supply of powder and shot for their weapon. Having reached the stage of a very creditable outline, enclosure, and boundary, they appear utterly incapable of grasping the necessity for that type of furniture which is so necessary to produce anything worth calling a garden.

Once upon a time a lady rang up a friend of mine asking for information about the services rendered by a certain nursery company. After he had held forth at considerable length about the care with which personal inspection would be made by experts so that existing conditions could be adequately grasped, about getting started along the right lines, and about individual attention to details, she replied that, as her children were all very young, and quite delicate, she felt that she could not do better than leave them in the care of so painstaking and enterprising a firm. Since that time I have always taken a lively interest in definitions. It is advisable to know, at the outset, exactly what it is that is being discussed before getting down to details. The mental picture produced by the word "garden" in the minds of

various people may differ almost as much as the idea conveyed by the word "nursery."

In country districts a "garden" is a patch of ground for growing potatoes. Advice on the "furnishing" of such a place could have no possible meaning. When Raphael designed the Villa Madama, on the other hand, his conception of a "garden" was so exclusively architectural that even horticulture was of secondary importance. His courts and his terraces relied for their effect on the exquisite detail of architectural and sculptural furniture. Such a definition is almost beyond the comprehension of the average layman. Even distinguished gardeners, both amateur and professional, have very little conception of what the word "garden" means. To them a "garden" is just a place for growing beautiful flowers and plants. Layout and design, from their point of view, mean little more than the effective grouping of prize winning varieties in positions where they will have the greatest chance of success and produce the greatest possible display. Their idea of "furniture" is a garden bench on which exhausted guests may be sufficiently revived to enable them to undertake further inspection.

Before 1750 layout and design were never subordinated to horticulture. The garden was a work of art often decorated with beautiful flowers. It is just as unreasonable to say that a garden is a place for growing plants or erecting sundials as it would be to claim that a house is a place for displaying chairs, lamps, and rugs, a definition which applies only to the auction sale, the antique shop, or the museum. Whatever else the garden may be, it is not, or should not be, a museum. Whether the garden is given direct connection with the living rooms or not, it is essentially part of the house, or else the house is part of it. In some cases such as terraces, garden courts, or even lawns, it forms the centre of family life and may be furnished much like a room. In other cases it will be more of a retreat, a private sanctuary for sitting or strolling about like the cloister garth attached to every monastery. While it is true that certain gardens may be designed for some special horticultural purpose such as the growing of fruit, vegetables, or flowers, it no more follows that a garden may be defined as a special place for growing any of these things than that a house may be defined as a place for eating meals because meals are so frequently eaten in houses. Unlike a room no garden, worthy of the name, can ever be wholly utilitarian even if its principal purpose is the growing of vegetables. In certain cases, such as the entrance area in front of a large residence or other building, the value of layout may be almost exclusively ornamental. Whatever its purpose may be every garden will depend for its success upon beauty, to attract visitors by its restful charm, its theatrical setting

for social intercourse, its plants and flowers: or else to form an architectural setting for the building and a link between architecture and nature.

One of the many difficulties which surround the whole problem of the furnishing of gardens is the attempt so often seen to combine furniture with the landscape style of garden design. Returning travellers have difficulty sometimes in finding suitable sites for the antique sundials, figures, bird baths, and lead urns which turn up after their arrival at home. Having consistently refused to consider any suggestion of formality or definition of line in the layout of their own garden, and having failed to provide anything resembling the old world atmosphere of the gardens from which the sculpture has been taken, they feel keen disappointment when it is finally erected in the rather vague setting of an informal lawn.

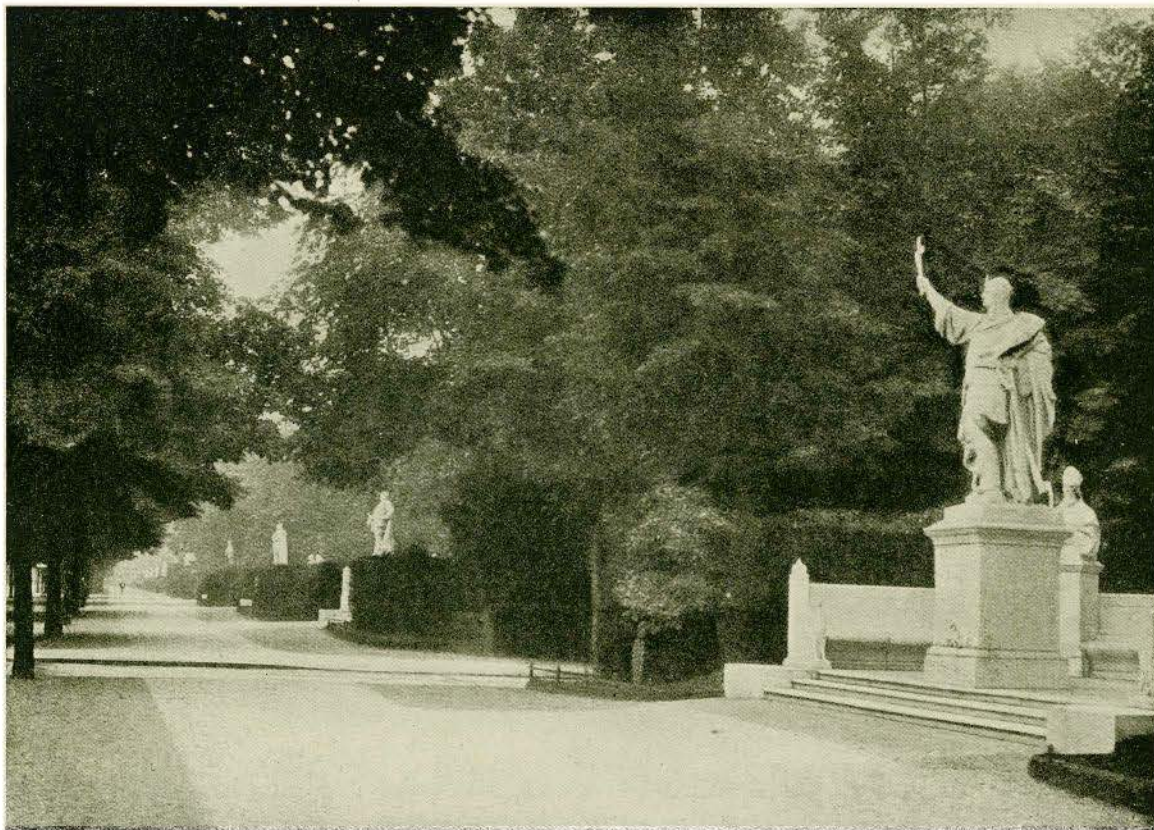
It would be a misstatement to say that furniture can not be suitably combined with the informal or naturalesque style of garden design. The garden of China and Japan is a conventionalized natural landscape in which symbolism plays a prominent part. The materials with which the designer works are water, rocks, trees and plants, combined with such architectural features as pagodas, bridges, and stone lanterns. While the Western Garden may be said to have evolved from the inside outwards, that is, from architecture towards nature, the Oriental Garden has done the opposite. It evolves from nature towards architecture, its natural forms becoming more and more conventionalized in approaching architecture which is itself simply a further stage of conventionalization. Although naturalesque this style achieves perfect harmony between architecture and nature.

The reasons why attempts at furnishing the modern landscape garden are frequently so grotesque may be attributed to lack of conventionalization of surroundings in the first place, and to the character of the furniture itself in the second place. Statues and urns of classic design demand an extremely formal setting. Sundials, fountains, garden houses, and sculpture are the precious stones which form the accent points and climax of design. They should only be introduced to complete a composition which would lack concentration in their absence. The results of their introduction without excuse or purpose may be seen to-day in many public parks. The surroundings of the Parliament Buildings at Queen's Park in Toronto present an outstanding example of the provincial outlook of our rulers, of utter lack of imagination, perception, and ideas on the part of a public whose smug satisfaction is proof against the amusement which is felt, but not expressed, by every distinguished visitor from Continental Europe where the visible expression of culture, refinement, and good taste is to be seen in the treatment of the public



APPROACH TO PARLIAMENT BUILDINGS, TORONTO

"The surroundings of the Parliament Buildings in Toronto present an outstanding example of the provincial outlook and lack of imagination of both our rulers and the public."



SIÈGES ALLÉE, POTSDAM

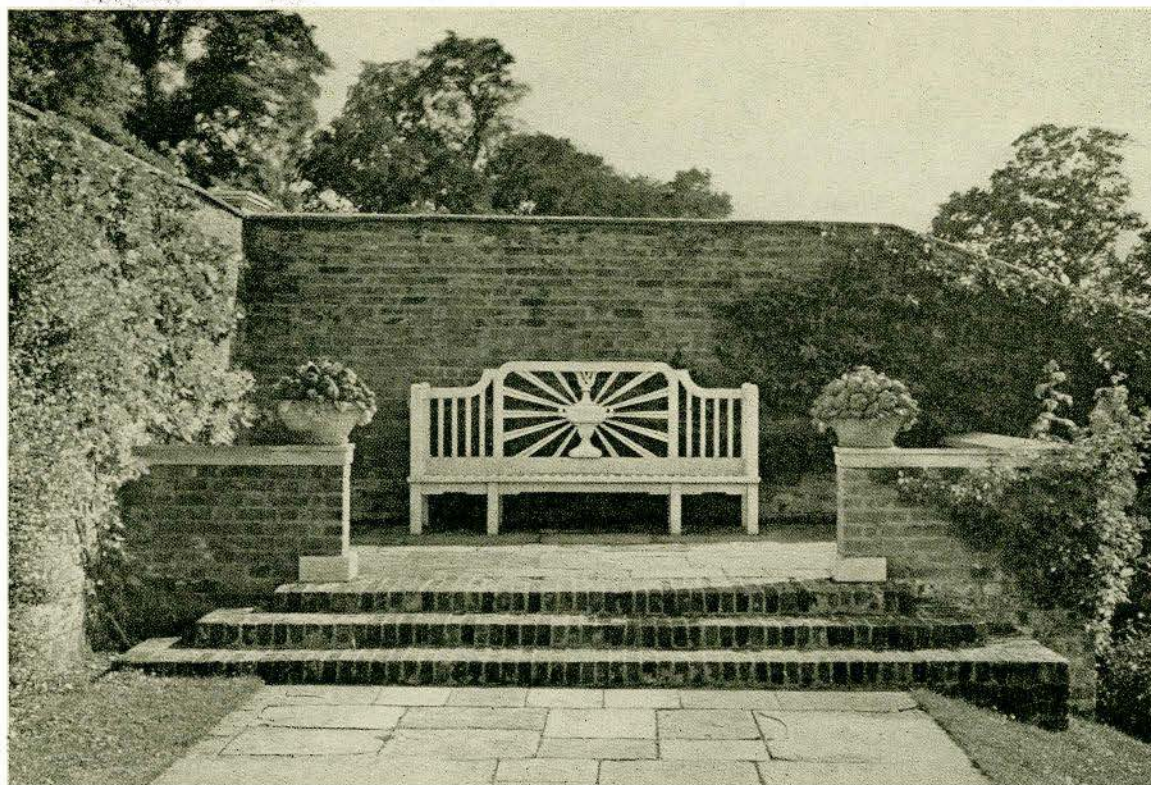
"In Continental Europe the visible expression of culture, refinement, and good taste, is to be seen in the treatment of the public places of every city."

places of every city. The attempt at formal gardening in Queen's Park may be an example of the worst period of Victorian design. The arrangement of the sculpture may be sufficient to condemn the whole idea of the furnishing of parks on sight. The most serious feature of the Parliament Buildings layout, however, is failure to appreciate the fact that sculpture, and furniture of any sort, must be subordinated to layout and design if any satisfactory results are to be expected.

More recent attempts in Toronto give no evidence of improvement in public taste. The two public areas of land at the north-east and north-west corners of St. Clair Avenue and Avenue Road can scarcely be called either parks or gardens. Here at least was an opportunity for some dignified expression of the growing culture of Canada's second largest metropolis. The city, however, has shown so little appreciation of the possibilities presented by this opportunity that it has failed to furnish the parks commissioner with more than sufficient funds to sod the place down and plant a few shrubs, although money had been raised by public subscription to furnish the two areas in question. No attempt whatever has been made to provide an adequate location or setting for either the excedra on the east or the Pan fountain on the west. If any attempt had been subsequently made to provide a setting for the two monuments in question the final effect would be much less subject to criticism, although such a course of procedure

would have been entirely wrong. The subordination of design to architectural and sculptural features must always result in affectation, for however valuable the furniture may be for its own sake, and however masterly a work of art in itself, no subsequent attempt to find an excuse for its existence can really make it fit into its surroundings or release it from an almost inevitable feeling of self-consciousness. Furniture and planting should be introduced into gardens because they are needed to complete the design.

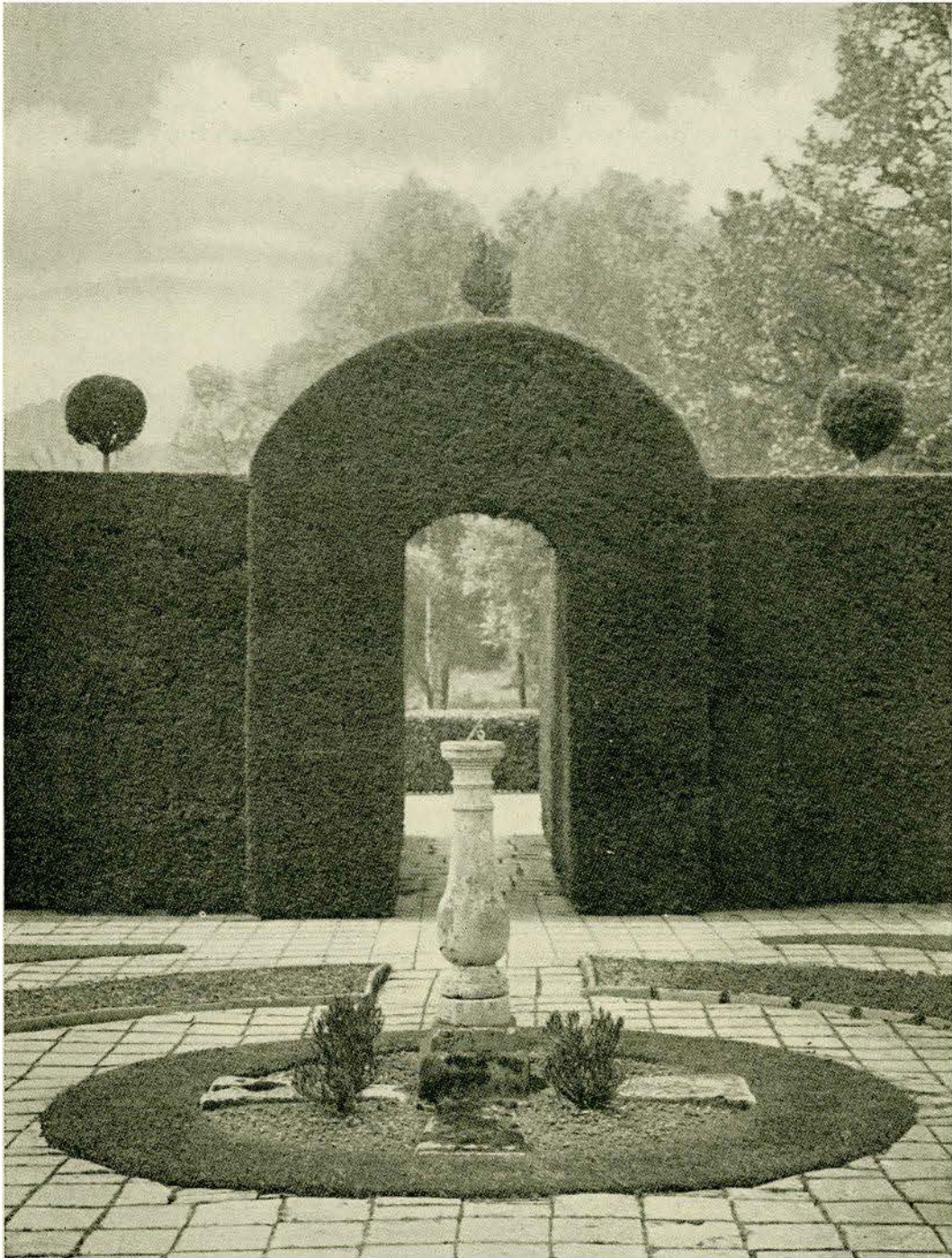
In conclusion a word should be said about the materials in which furniture may be executed. White marble sculpture was almost universal in classical gardens. Why does it look so impossible here? I am told that the sun is brighter in Italy and Greece but I very much doubt if that is the real reason. Perhaps the Greeks used to paint it. However that may be our gardens seem to demand the soft effect of a stone that will weather. I have seen some very creditable work in artificial stone and terra cotta but where funds permit sculpture should be executed in real stone, lead, spelter, or bronze. For tables, chairs, benches, and tubs, I prefer wood, as stone furniture of this type is likely to be much more ornamental than useful. When money is no object it will be found that oak with natural finish will fit into its surroundings better than anything else if a quaint old world atmosphere is being aimed at. In other cases the colour and sparkle of paint on pine may be needed



WOODEN SEAT AT OARE HOUSE, WILTSHIRE, ENGLAND

Designed by Clough Williams-Ellis, Architect

"In some cases the colour and sparkle of paint on pine may be needed to give life to the picture."



A SUNDIAL AT BOLDRE, HANTS, ENGLAND

"Sundials, fountains, garden houses, and sculpture, form the accent points, and climax of design."

to give life to the picture. Wood is apt to produce a rather temporary and even flimsy effect as compared with brick or stone when used for gates, fences, pergolas and summer houses in exactly the same way as a wooden house looks temporary when contrasted with another building constructed of more permanent material. For gates and fences I prefer wrought iron to wood in most cases where brick or stone is used for piers. A solid oak door in a garden wall may sometimes

produce a better appearance than wrought iron however.

In an age which produces so few gardens and so little garden furniture the architect and the sculptor get little opportunity to display their skill in the design of garden furniture. We are now a long way from the days of Imperial Rome when, as Lanciani tells us, a workman would save money for years in the hope that one day he might be able to afford one piece of sculpture for his garden.



A VISTA TERMINATED BY A MARBLE SEAT AT PARKWOOD, OSHAWA, ONT.

"Although white marble furniture was almost universal in classical times our gardens seem to demand the soft effect of a stone that will weather."



PORTE CENTRALE (BORDEAUX)

LE BAS-RELIEF DU MUSÉE DES COLONIES FRENCH COLONIAL EXHIBITION (1931) PARIS

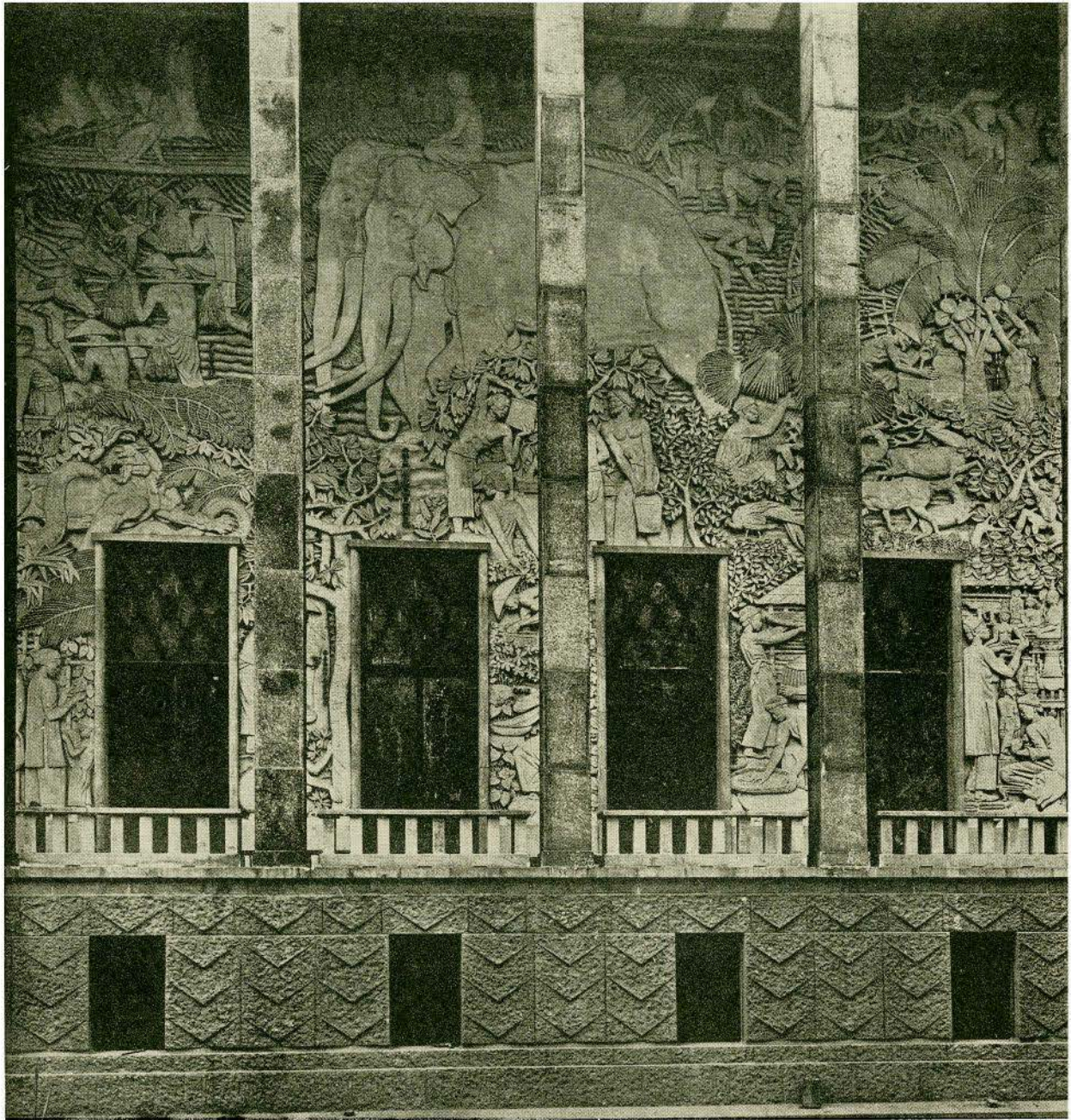
THIS Bas-relief was composed, designed and carved by Alfred Janniot during the years 1928 to 1931. Gabriel Forestier and Charles Barberis collaborated in the execution.

The Musée des Colonies is a permanent building erected for the French Colonial Exhibition of 1931.

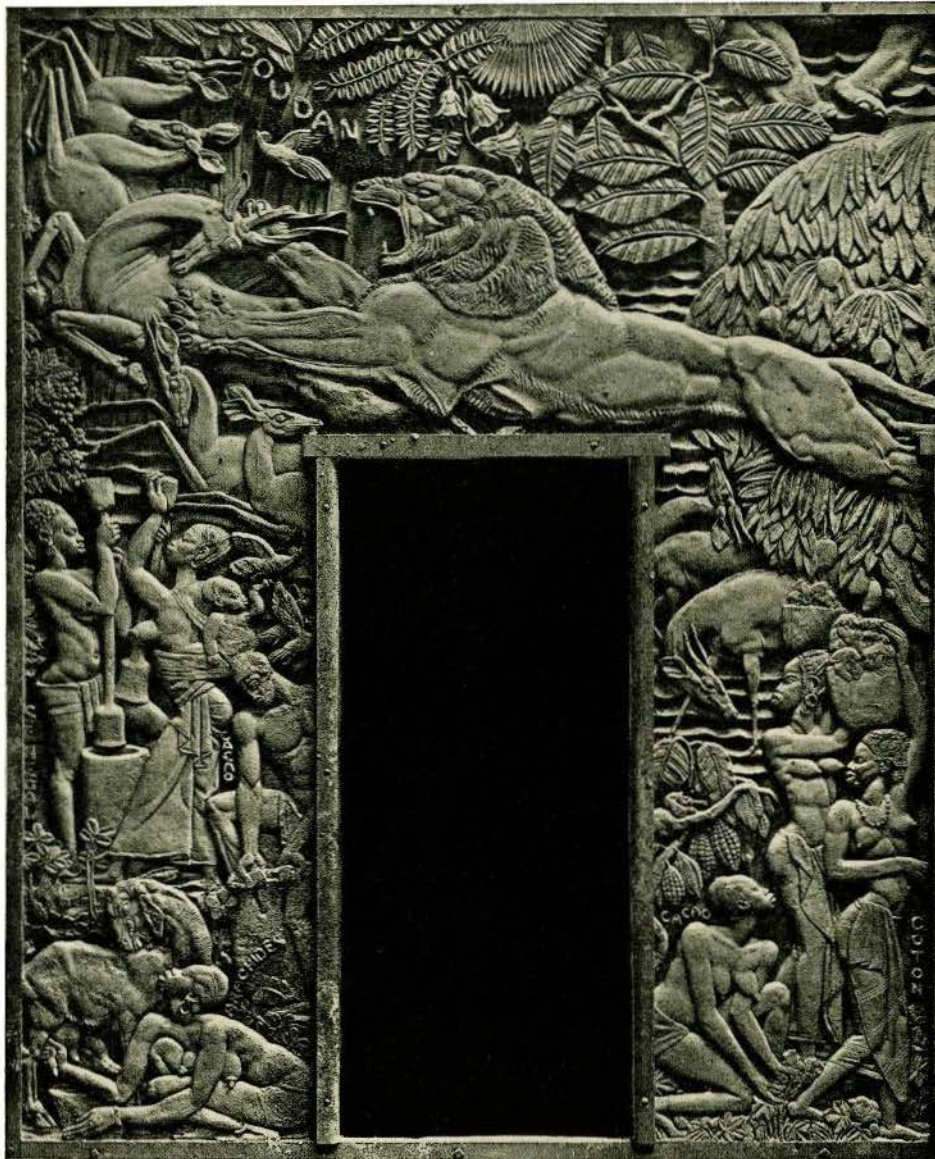
The whole of the main facades is treated as a pictorial panorama of life in the French Colonies. The stone used is a warm, deep, ivory limestone. The sculptured walls are about forty feet high and are treated as an all-over pattern, and the spectator

is intrigued and left spellbound by this masterly achievement, considered one of the greatest *tours de force* in modern sculpture. The modelling is vigorous and modern in the flat plastic manner, with softened arrises. One travels in imagination from the Soudan to the Ivory Coast, to the Congo, to Madagascar, to Martinique, to Indo China and Tahiti.

The composition adopted by the great tapestry designers has been adopted as the parti. This convention suppresses the perspective and imposes the



FACADE PRINCIPALE (PARTIE DROITE)—DU MUSÉE DES COLONIES
FRENCH COLONIAL EXHIBITION (1931) PARIS



SOUDAN-SENEGAL (FRAGMENT)

same scale for all the figures. It will be noticed, that following a rule applied in tapestry design and to avoid annoying comparisons in scale, the feet are rarely seen.

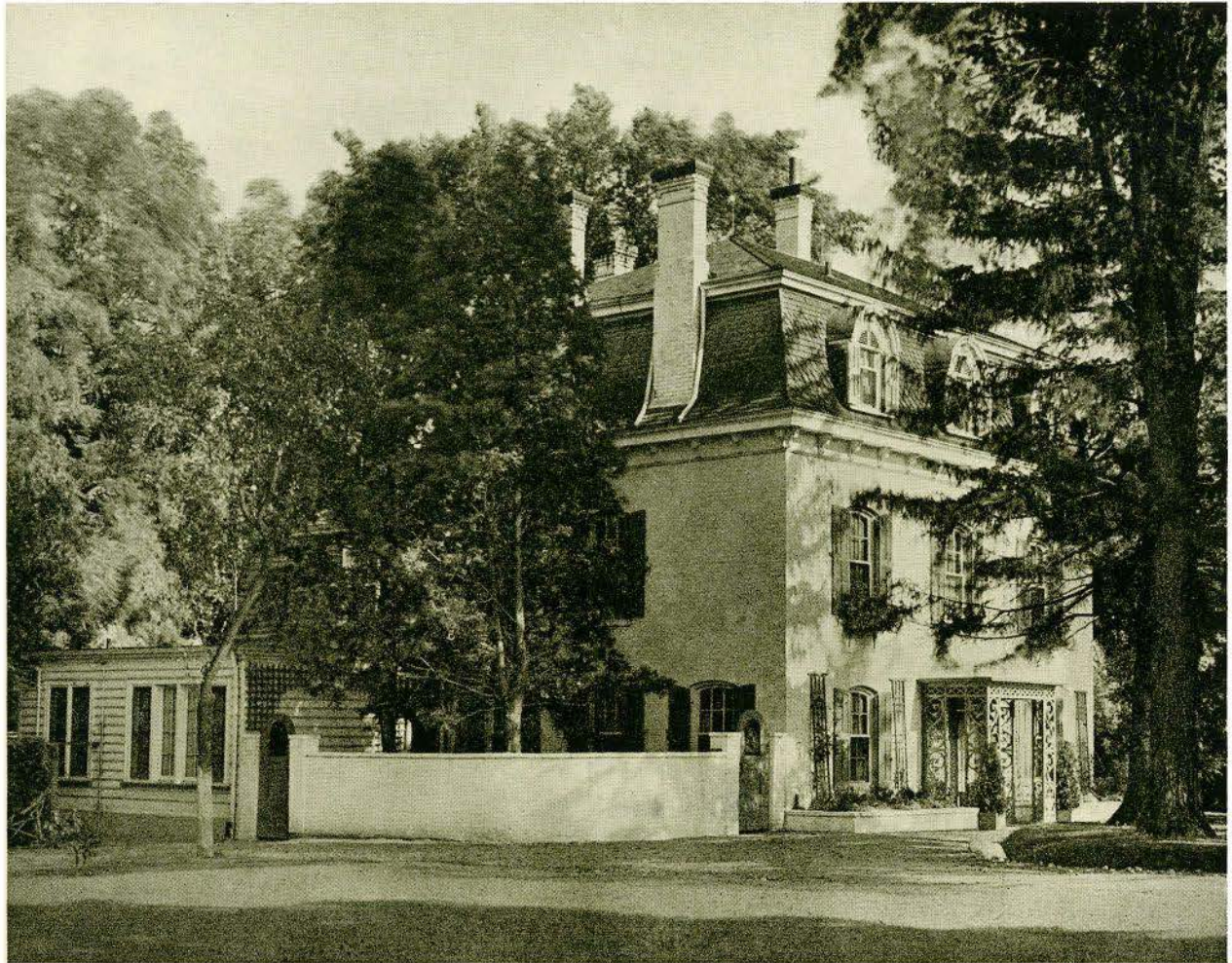
There clings about these images of the world a sort of sensual materialism, drenched with the perfume of the earth. Quite naturally the eye travels from one scene to another, conducted by the movements of rhythmic bodies, the flight of birds or the balancing of palms.

Here we have the master sculptor who under-

stands what texture and wall surface mean, who while avoiding black holes in his composition, yet achieves a vigour and a contrast that is remarkable when we realize that nowhere is there a greater projection from the normal wall line than ten centimeters.

Perhaps the extreme functionalist would not agree with this marvelous story in stone of the French Colonial Empire, yet I venture to think that no Frenchman can view this triumph of symbolism without a thrill of pride.

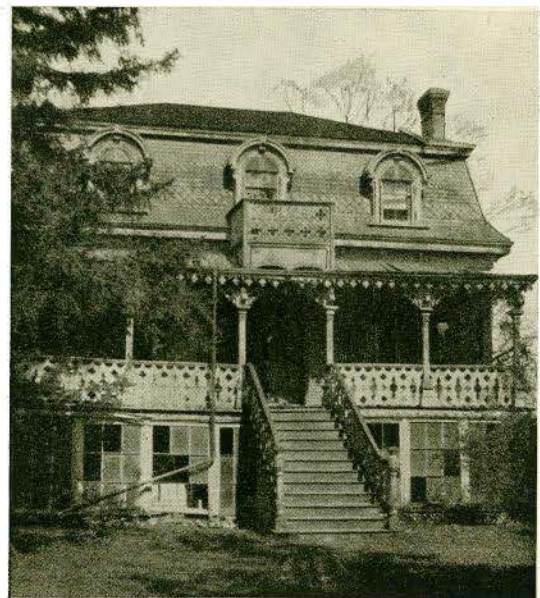
John M. Lyle, F.R.A.I.C.



RESIDENCE OF ALLAN CASE, ESQ., ORIOLE, ONT.
AFTER ALTERATIONS

Mackenzie Waters, M.R.A.I.C., Architect

This house was originally Victorian showing French influence and having a semi-basement floor. In remodelling the house, the porches were removed and the entrance lowered to basement which was established as the first floor.

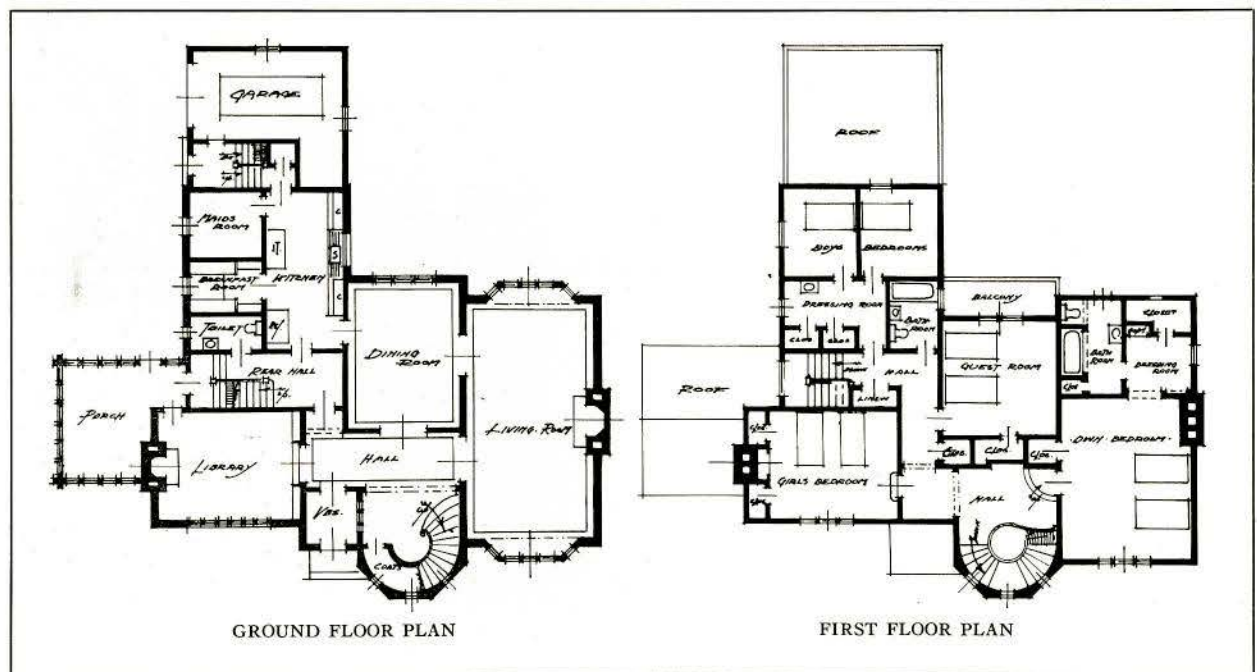


BEFORE ALTERATIONS



RESIDENCE OF R. H. COOK, ESQ., REGINA, SASK.

W. G. Van Egmond, F.R.A.I.C. and Stan. E. Storey, M.R.A.I.C., Architects



THE ROYAL CANADIAN ACADEMY OF ARTS

The semi-annual meeting of the council of the Royal Canadian Academy of Arts was held in Montreal on Saturday, May 6th, 1933. Following a report given by the president, the matter of the next annual exhibition was discussed, and it was decided that the fifty-fourth annual exhibition of the Royal Canadian Academy would be held at the galleries of the Art Association of Montreal, the opening to take place on Thursday, November 16th, 1933. A hanging committee was appointed consisting of Messrs. Ernest Fosbery, Ottawa;

G. Horne Russell, W. S. Maxwell and A. Laliberte, Montreal; and the president, Mr. E. Wyly Grier, ex-officio. It was also decided to again invite the Royal Architectural Institute of Canada to participate in this exhibition.

The resignation of Mr. A. Y. Jackson from the academy was accepted with regret.

A resolution of sympathy on the death of Mr. J. E. H. MacDonald was voted, and the secretary was instructed to convey to the bereaved family the deep regrets of the council.

DEPARTMENT OF ART, SCIENCE AND RESEARCH

CONDUCTED BY B. EVAN PARRY, F.R.A.I.C.

The many developments which are taking place today in research work covering materials of building construction, must necessarily demand the attention of all members of the profession, inasmuch as the new material now being used partly in Canada, but to a much greater extent in other countries, will influence the design of the modern building today. *Inter alia*, the attention of architects is very forcibly drawn to the displays of such material being exhibited at the World's Fair, Chicago.

* * * *

The committee has been in communication with the United States Department of Commerce and hopes at some future date to be able to give further details covering such material as synthetic stone, which has been developed during an eight-year research at Purdue University. The economic value is emphasized through its ease of manufacture and the promise it holds of utilizing the cheapest kinds of shale and slate rocks, quarry waste, and other materials previously considered worthless. It stands out as a rival to common types of natural stone in strength, resistance to weather, and other characteristics sought in a building material.

* * * *

The American Standards Association has prepared an exhaustive tentative national standard for abbreviations for the most common scientific and engineering terms. This brochure has been prepared with the co-operation of five leading national engineering and scientific organizations.

* * * *

New developments have taken place in dumb waiters which provide full automatic, electric service between two floors at very moderate cost. Not an inch of space is needed above the top of car at upper landing, an advantage where headroom is scanty.

* * * *

The Department of the Interior of Canada is to be congratulated upon the issuance of circulars No. 36, 37 and 82. The first of this series deals with leaching tests on water-soluble wood-preservatives, and points out that one of the most important requirements of a wood-preservative is that it be permanent under service conditions, and the only sure way of determining this is to carry out actual service tests. Such tests, however, usually take from ten to forty years, depending on the type of timber treated, and in consequence it is desirable to make use of any laboratory tests that can be accomplished in a short time and that will enable some opinion to be formed of the permanence of the particular preservative under consideration. This experimental work has been carried out in four series, each series of tests being performed to compare two preservatives under a definite set of conditions or to test the same preservative under different conditions.

Circular No. 37, under the caption of "Red Stain in Jack Pine," is a comparative study of the effect of *Trametes Pini* and a second red-staining fungus on the strength of jack pine. Red stain, it is explained, is a disease condition which develops in standing jack pine due to the growth of fungi in the wood tissues. As implied by the name, wood affected by this disease is reddened; and the defect is thus rendered visible to the purchaser. The discoloration is found in a confusing variety of shades, graded according to the type and degree of infection, and modified also by moisture conditions in the cut timber. An interesting point brought out in the research is that it is possible that the rate of growth as indicated by the number of rings per inch may serve as an indicator in the selection of jack pine resistant to decay, but further tests on specimens representing a wider range of growth-rates is necessary before this possibility can be anything more than an interesting speculation.

* * * *

The British Department of Scientific and Industrial Research calls attention to several findings which may be briefly reviewed as follows:

Referring to strength or denseness in concrete, it is suggested that too much stress is laid on the importance of obtaining maximum strength in concrete and that a water/cement ratio based on strength considerations alone gives a consistence which results in considerable porosity in the finished concrete. A larger water content, while still leaving a sufficient margin of strength, gives watertight concrete.

Staining concrete was the subject of an interesting study and it is claimed that stains such as are used for wood may be applied after the concrete surface has been treated with zinc sulphate solution. The surface may be impregnated with slightly acid solutions of ferrous, ferric or cupric sulphates, chlorides or other salts which will produce a deposit of an insoluble, coloured metallic oxide or hydroxide in the surface pores. The colours thus obtainable are the buffs, yellows and greens. Aniline dyes added to a solution of wax in naphtha may be used as paints. Certain indicators commonly used by the analyst produce brilliant hues. A proprietary product of this type consists of a solution of alizarin which reacts with the free lime in the concrete and produces a deep purple. Pre-treatment of the surface with aluminium sulphate results in the alizarin producing a brilliant red.

* * * *

Deflection in reinforced concrete beams, published by the *Civil Engineering*, 1932, presents a formula for calculating deflection in reinforced concrete beams, which is based on the assumption of homogeneity in such members and which is said to have been confirmed by actual tests carried out on such beams at Columbia University, U.S.A.

ACTIVITIES OF THE INSTITUTE

A meeting of the executive committee of the council of the Royal Architectural Institute of Canada was held at the office of the Institute, 74 King Street East, Toronto, on Wednesday, May 31st, 1933, at 2.30 p.m.

Present: Messrs. Gordon M. West, president; Alcide Chausse, honorary secretary; W. L. Somerville; James H. Craig; J. P. Hynes; B. Evan Parry; Herbert E. Moore; Murray Brown and I. Markus, secretary.

Reports of Standing Committees:

Architectural Training: The secretary reported that the drawings submitted in the R.A.I.C. Student Competitions had been exhibited at the Ecole des Beaux-Arts Montreal and Quebec, the University of Toronto, and the University of Manitoba, and that arrangements had been made to exhibit the drawings at the University of Alberta in the Fall.

Public Relations: The attention of the meeting was called to an article which appeared in a recent issue of *Financial Post* entitled "Government to Back Public Works for Provinces," in which it was stated that a Public Works Relief Programme, to be financed by co-operation between construction, financial and government interests, was believed to be the basis of a new policy outlined in a letter sent by the Prime Minister of Canada to the premiers of the various provinces—The plan outlined in the article was favourably commented on by the meeting, and after some discussion, the public relations committee was requested to draft a letter to be sent to the editor of the *Financial Post* commending the proposed plan.

Art, Science and Research: A letter was read from the Canadian Engineering Standards Association requesting the Institute to name a representative on a special committee in connection with some tests to be carried out on oil burning systems by the National Research Council—Mr. A. J. Hazelgrove of Ottawa was appointed to represent the Institute on this committee.

Exhibitions and Awards: A letter was read from the Royal Canadian Academy of Arts inviting the Institute to again hold its exhibition in conjunction with the Fifty-Fourth Annual Exhibition of the R.C.A. to be held at the galleries of the Art Association of Montreal during the month of November, 1933—The matter was referred to the committee on exhibitions and awards.

Editorial Board, Journal R.A.I.C.: The secretary advised the meeting that the editorial board had requested a ruling from the executive committee in the matter of the publication of letters after architects' names when published under illustrations of buildings in THE JOURNAL—It was decided to confine the letters to those designating Membership or Fellowship in the Institute.

National Construction Council of Canada: The president reported that at the first meeting of the permanent council held on May 2nd, the following officers were elected for the ensuing year:

President—George Oakley, M.P.P., of the Canadian Construction Association.

First Vice-President—Gordon M. West, of the Royal Architectural Institute of Canada.

Second Vice-President—J. B. Carswell, of the Engineering Institute of Canada.

Honorary Treasurer—A. Ross Robertson, of the Canadian Manufacturers Association.

General Secretary—I. Markus.

Also that the following standing committees had been appointed:

Research Committee—W. L. Somerville, chairman.

Public Relations Committee—H. P. Frid, chairman.

Survey Committee—J. B. Carswell, chairman.

The president further reported that a questionnaire had been sent by the National Construction Council to the

Boards of Trade in the larger municipalities throughout the Dominion for the purpose of ascertaining and tabulating the possible construction projects which might be available to be undertaken in Canada in the near future. He further informed the meeting that a copy of the questionnaire had been sent to every member of the Institute, together with a request that they co-operate with the National Construction Council in obtaining the necessary information.

Standardization of Brick Sizes: Mr. H. E. Moore reported that sufficient replies to the questionnaire sent out to R.A.I.C. members had been received to indicate an almost unanimous support of the standardization of brick sizes. Replies to the questionnaire had also been received by the Canadian Engineering Standards Association from brick manufacturers, engineers, corporations, municipal and school board officials, which would enable the sub-panel to tabulate the information and make a recommendation to the general committee. Mr. Moore felt that it might be necessary to consider two sets of standard sizes, one for Ontario, and one for the rest of Canada, as the architects in Ontario seemed to support the larger size while the architects in the Eastern and Western Provinces were in favour of retaining the small size now in use, as they claimed it would result in a better made and burned brick.

Financing of Buildings by Loan Companies: Mr. Gordon M. West reported that the special committee appointed to deal with this matter had considered the recommendations made by the Saskatchewan Association of Architects as contained in their letter of February 14th, and that while the suggestion to send a letter to all loan and insurance companies was considered advisable, it was thought necessary to re-draft the letter and then obtain the opinion of some of the loan company officials before submitting the final draft to the executive committee for approval.

Establishment of a Bureau for Research Work on Building Materials by the National Research Council: The secretary reported that the secretary of the Canadian Construction Association, had interviewed Dr. H. M. Tory on April 28th with reference to the recommendation regarding the establishment of a National Bureau of Research for Building Materials, and that this interview had been followed by a lengthy communication to Dr. Tory in which it was suggested that investigations might be carried out by the proposed bureau on (a) construction materials, (b) construction methods, (c) appliances, and (d) specifications, also that a preliminary committee might be formed consisting of a representative from the Royal Architectural Institute of Canada, the Engineering Institute of Canada, and the Canadian Construction Association to discuss the subject with three members of the National Research Council.

In this connection a letter under date of May 10th was read from Dr. H. M. Tory, president of the National Research Council, advising the Institute that the Council had given further consideration to the question of research work on building materials, and that he would arrange for a meeting of a small group to discuss the possibilities of laying out a programme which might later be undertaken.

R.I.B.A. Matters: Letters were read from Mr. Philip J. Turner under date of May 11th and May 16th, regarding the following matters which are now being considered by the R.I.B.A. council:

Professional Conduct Cases.

The Publication of Books Illustrating the Work of Individual Architects of Firms of Architects.

Official Architects engaged in Private Practice.

Regulating the Admission of Students to Schools of Architecture.

ACTIVITIES OF THE INSTITUTE—Continued

It was the feeling of the meeting that the attention of the Canadian Universities should be drawn to the suggestion made by the R.I.B.A. board of architectural education regarding the regulation of the number of students seeking admission to the schools of architecture.

Legislation Regulating the Practice of Architecture in New Brunswick: The secretary advised the meeting that the newly formed Architects Association of New Brunswick had been successful in obtaining legislation regulating the practice of

architecture in the province of New Brunswick, and that as soon as the Bill had been signed by the Governor-in-Council, a copy of the Act and By-Laws would be sent to the Institute for its information. He further advised the meeting that the president had telegraphed the congratulations of the Institute to the president of the Architects Association of New Brunswick.

Adjournment: The meeting adjourned at 6.30 p.m.

ACTIVITIES OF PROVINCIAL ASSOCIATIONS

MANITOBA ASSOCIATION OF ARCHITECTS

Following receipt of a letter in February from the president of the Institute advising that a conference was to be held in Toronto of representatives of national organizations interested in the construction industry, the Manitoba Association of Architects became very much interested in the proposed plan, as it was felt that a construction programme as a relief measure could economically be carried out and was much more to be desired than the present direct relief system. The council has been very active since that time in an endeavour to do everything possible towards the stimulation of the building industry along the lines suggested by the newly formed National Construction Council.

Meetings have been held in conjunction with the Winnipeg Builder's Exchange, Engineer's Association, and many other interests. As a result of these meetings, letters and resolutions have been sent to the Prime Minister endorsing the recommendations of the National Construction Council. Similar letters have also been sent to the Manitoba representatives at Ottawa.

From reports appearing in the Daily Press, the council of the M.A.A. is of the opinion that good results will obtain from the united efforts of those interested in construction throughout the Dominion. The publicity given in the press to the recommendations of the National Construction Council should increase the enthusiasm for the proposed movement for activity in the construction industry.

NOVA SCOTIA ASSOCIATION OF ARCHITECTS

The annual general meeting of the Nova Scotia Association of Architects was held in the Lord Nelson Hotel, Halifax, N.S., on May 26th, 1933, with the retiring president, Mr. S. P. Dumaresq, in the chair. In his opening address, Mr. Dumaresq thanked the members for the loyal and hearty co-operation that had been extended to him during his term of office. While the association had encountered the usual problems faced by newly formed architectural associations, he was pleased to state that the association had successfully weathered the first year of its operation under the new Architects' Act.

The reports of the council and the secretary-treasurer were presented to the meeting, and considerable business of interest to the members of the profession in the Province of Nova Scotia was discussed. The registration fee for new members for the year 1933 was fixed at fifty dollars, while the annual dues for members of the association was fixed at \$25.00.

The officers elected for the ensuing year were as follows:

President—Major H. E. Gates.

Vice-President—A. R. Cobb.

Honorary Secretary-Treasurer—A. E. Priest.

Councillors—S. P. Dumaresq, W. M. Brown, L. R. Fairn and M. R. Chappell.

ONTARIO ASSOCIATION OF ARCHITECTS

Members of the Ontario Association of Architects have been advised that the publication of brochures supported by advertising is definitely disapproved by the association as being opposed to the best interests of the profession, and to a united building industry, and that the R.A.I.C. JOURNAL was the one and only publication authorized.

As a result of the recent Beaux-Arts Charity Ball, sponsored by the association, the funds being raised for the relief of unemployment have been augmented to the extent of over twelve hundred and fifty dollars. Enthusiastic and generous support was given by various art societies and their individual members, to whom much of the success of the ball was due.

A shop has been opened in Toronto for the sale of handi-craft and work of unemployed draftsmen and architects, and an invitation has been extended to those in need of financial assistance to send in their work, or to consult the relief committee of which Mr. W. L. Somerville is chairman, regarding any work they are able to do. The entire proceeds from the sale of each man's work is to be given to him, less a small percentage to cover sales tax and overhead expenses.

The annual meeting of the Toronto Chapter of the O.A.A. was held in the Engineering Building, University of Toronto, on Thursday, May 18th, with the retiring chairman, Colonel Mackenzie Waters, in the chair. Following the presentation of the annual report, a vote of thanks was tendered to Colonel Waters for his untiring efforts on behalf of the Chapter during his term of office. The following officers were elected for the ensuing year:

Chairman—Burwell R. Coon.

Vice-Chairman—G. Roper Gouinlock.

Treasurer—R. W. Catto.

Secretary—E. R. Arthur.

Councillors—E. W. Haldenby, Dyce Saunders and B. Evan Parry.

The annual golf tournament and dinner of the Toronto Chapter O.A.A. was held at the Toronto Hunt Club on Tuesday, June 6th, 1933.

NOTES

Ernest I. Barott, F.R.A.I.C., F.R.I.B.A., A.R.C.A., prominent Montreal architect, was recently honoured with the degree of Doctor of Fine Arts by the University of Syracuse at the sixty-second annual commencement exercises.

* * * *

Major H. E. Gates, F.R.A.I.C., of Halifax, was elected president of the Nova Scotia Association of Architects at the annual meeting of that body held at the Lord Nelson Hotel, Halifax, on May 26th, 1933. Major Gates succeeds Mr. S. P. Dumaresq, M.R.A.I.C., who has held the office of president since the association was incorporated in April, 1932.

* * * *

Dr. John A. Pearson, F.R.A.I.C., left on May 18th for an extended trip abroad.

* * * *

Percy E. Nobbs, F.R.A.I.C., was elected president of the Montreal Fencing Club at its recent annual meeting.

* * * *

R. McD. Symonds, M.R.A.I.C., president of the Alberta Association of Architects, and Philip J. Turner, F.R.A.I.C., president of the Province of Quebec Association of Architects, were recent visitors to Toronto where they discussed matters of interest to the profession with the president and secretary of the Institute.

* * * *

Herbert Horner, M.R.A.I.C., announces the removal of his office from the Sun Life Building to 19A Bloor Street West, Toronto.

* * * *

The architectural firm of James and Savage, M.M.R.A.I.C., of Victoria, B.C., has been dissolved by mutual consent. Mr. Savage will continue practice at his present office in the Sayward Building, Victoria, B.C., and Mr. James will carry on practice at 2385 Todd Road, Willows, Victoria, B.C.

* * * *

Burwell R. Coon, M.R.A.I.C., was elected chairman of the Toronto Chapter of the Ontario Association of Architects at the annual meeting of that body held in the Engineering Building, University of Toronto, on May 18th, 1933.

* * * *

Dr. John A. Pearson, F.R.A.I.C., will represent the Royal Architectural Institute of Canada at the annual British Architects Conference which will be held in Cambridge, England, from June 21st to June 24th, 1933. An invitation has been extended to all members of the R.I.B.A. and its allied societies to attend the conference.

* * * *

Mr. Jack Mercer, son of Andrew L. Mercer of the architectural firm of Gardiner and Mercer, M.M.R.A.I.C., of Vancouver, was successful in passing the recent final examinations of the Architectural Institute of British Columbia with honours.

* * * *

Marcel Parizeau, of Outremont, P.Q., was recently elected a member of the Province of Quebec Association of Architects. Mr. Parizeau is a graduate of the Ecole Polytechnique of Montreal, and has recently returned from Paris, France, where he has resided since 1924.

* * * *

F. H. Portnall, F.R.A.I.C., Regina, representative of the Saskatchewan Association of Architects on the Senate of the University of Saskatchewan, attended meetings of the Senate and convocation in Saskatoon on May 11th and 12th.

* * * *

W. L. Somerville, F.R.A.I.C., and James H. Craig, M.R.A.I.C., addressed the Welfare Council of Ontario at a meeting held at the Royal York Hotel, Toronto, on April 24th, 1933. The subject of Mr. Somerville's address was "Relief Through Employment," while Mr. Craig spoke on "Production by the Unemployed for their own Consumption."

Diego Rivera, noted Mexican mural painter, while engaged in painting a large mural in the main lobby of the seventy-four storey R.C.A. Building in the Rockefeller Centre, New York City, was recently informed by representatives of John D. Rockefeller, Jr., that his services were no longer required. The official explanation given at the time of the dismissal was that Rivera's paintings were not in harmony with the general architectural scheme of the building, but unofficially it was stated that his paintings were too communistic in tone. Part of the mural, to which objection was said to have been taken, depicted Lenin uniting the hands of a soldier, a worker and a negro, while red flags waved in the background.

It is said that following Rivera's dismissal, his engagement by General Motors Corporation to paint a large mural in its building at the World's Fair in Chicago, was cancelled.

R.I.B.A PRIZES AND STUDENTSHIPS 1933-1934

The Royal Institute of British Architects announces competitions for the R.I.B.A. prizes and studentships for 1933-1934, which include the Tite Prize, the Owen Jones Studentship and the Soane Medallion.

The subject of the competition for the Tite Prize will be "A Walled Garden at the Rear of a Large London House." Closing date August 31st, 1933.

The subject for the Owen Jones Studentship will be "The Interior Treatment of a proposed National Opera House in London." Closing date November 14th, 1933.

The subject for the Soane Medallion competition will be "An International Temple of Religion at Geneva." Closing date September 29th, 1933.

Copies of the programmes and conditions for these competitions can be obtained from the secretary of the R.A.I.C., 74 King Street East, Toronto, Ontario.

BOOKS REVIEWED

THE RUINED CHURCHES OF NORFOLK. By Claude J. W. Messent, A.R.I.B.A. Price 75c.

This book gives a brief historical outline of the 240 ruined parish churches and pre-Reformation parochial chapels of Norfolk. We are told by the author that in many cases these churches have almost entirely disappeared except for a heap of stones. However, there are other examples mentioned in the book that are only partly decayed.

The book is 7" x 8 $\frac{3}{4}$ " in size and contains 42 pages including reproductions of a number of pen and ink illustrations by the author.

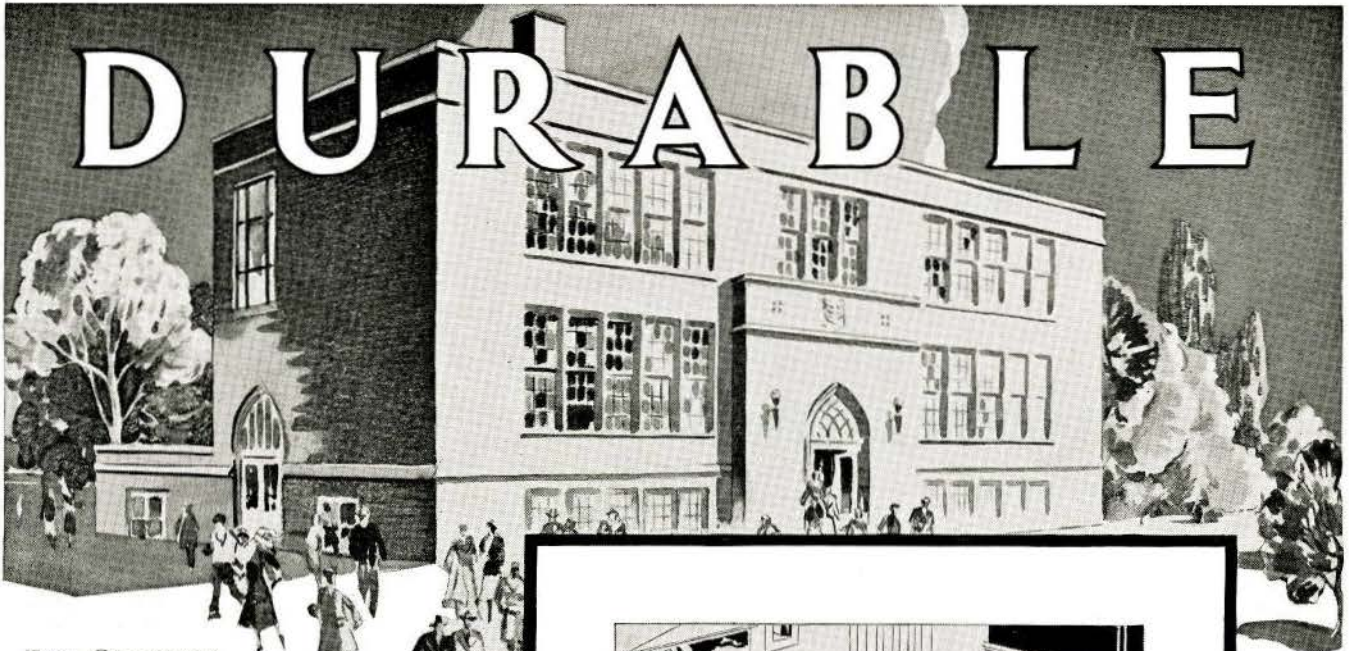
LIFE INSURANCE HOME OFFICE BUILDINGS. Published by Life Office Management Association, Fort Wayne, Indiana. Price \$5.00

This volume, which is in reality a report of a special committee appointed by the Life Office Management Association two years ago to study problems of building construction as it applies to life insurance home office buildings, covers the planning and construction of these buildings and their costs.

In describing the contents of the book we cannot do better than quote from the introduction to the volume which states that it presents "A comprehensive and exhaustive outline of the countless questions that must be considered in the formulation of a building programme, starting with the problems involved in preliminary planning, the study of rates of growth, allotment of space estimates, the selection of a site, proceeding more or less in chronological order through the construction of the building itself until it is occupied by owners or tenants."

The book is 8 $\frac{1}{2}$ " x 11" in size and contains 156 pages.

DURABLE



EARL COLLEGIATE
INSTITUTE
Willowdale, Ontario

Barry and Staines Super
Battleship Linoleum
was specified for floor
covering in this newly
erected educational
institution.

Architects:
Craig & Madill.



BARRY AND STAINES SUPER BATTLESHIP

LINOLEUM passes tests with honours!

Experience is the teacher that has perfected Barry and Staines Battleship Linoleum. World service has been its school—time its test—and durable, long-wearing floors its achievement.

For ever since linoleum was first invented and originally produced in a Barry and Staines plant, their products have been synonymous with the finest in floors, the utmost in econ-

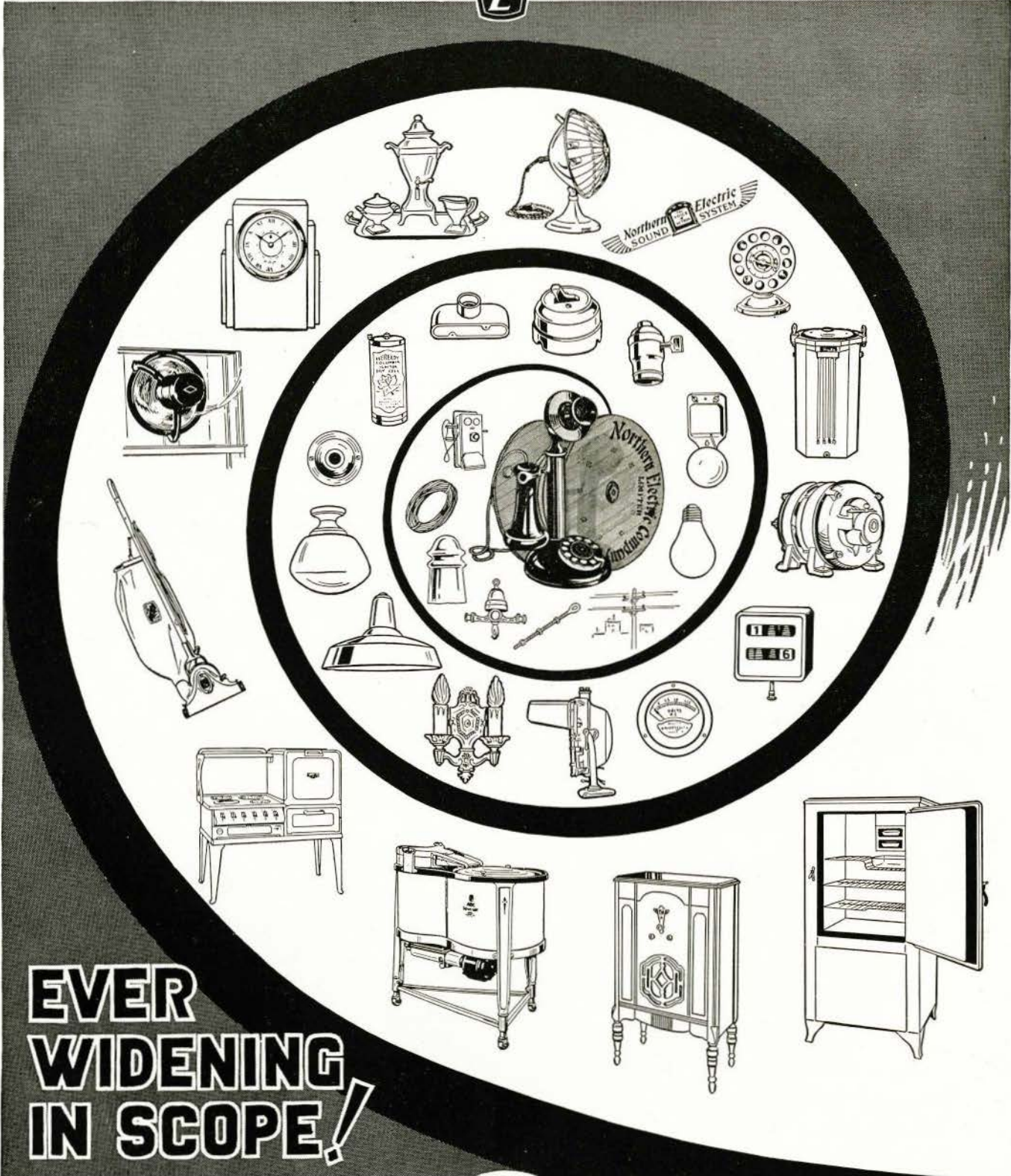
omy, and latest development in appearance and efficiency.

For schools, hospitals, office and other buildings, where floors are of major importance, Barry and Staines Super Battleship Linoleum is available in AAA, AA and A qualities, in brown, terra cotta, green and grey, and in special colours for large contracts.



BARRY AND STAINES LINOLEUM (CANADA) LIMITED, FARNHAM, QUE.

5-A



**EVER
WIDENING
IN SCOPE!**

Northern
COMPANY

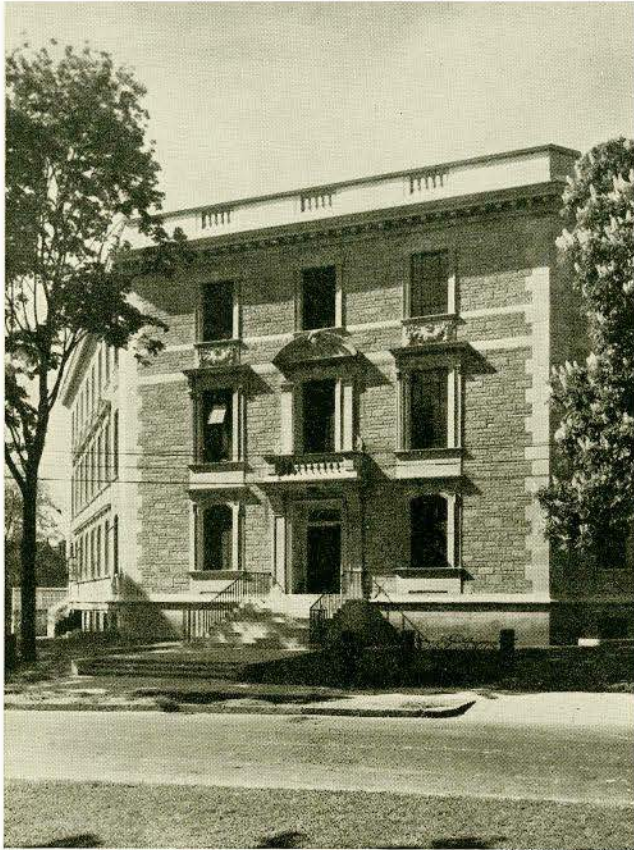


Electric
LIMITED

A NATIONAL ELECTRICAL SERVICE

577

ST. JOHN N.B. HALIFAX QUEBEC MONTREAL OTTAWA TORONTO HAMILTON LONDON WINDSOR NEW LISKEARD SUDBURY WINNIPEG REGINA CALGARY EDMONTON VANCOUVER



Photograph by W. Moore, Esq.

BOTANY BUILDING

University of Toronto
Toronto

*Architects: Mathers and Haldenby
Contractors: Anglin-Norcross Limited*

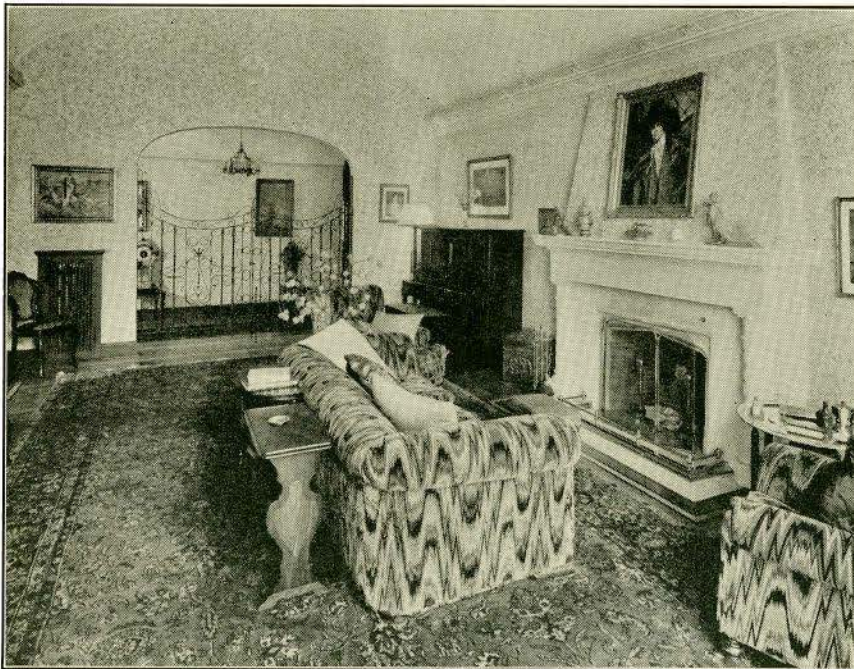
AN ARCHITECTURAL ACHIEVEMENT IN ONTARIO STONE

Another palatial building—the Botany Building, Queen's Park, Toronto, is added to the imposing list of notable structures in whose construction the Ritchie Cut Stone Company has played such an important part.

THE
RITCHIE CUT STONE CO.
LIMITED

159 BAY STREET

TORONTO



The charm and simplicity of the home is shown to its fullest advantage in Associated Screen News photographs.

Every A. S. N. photograph is an effective presentation of the subject.

Consult us today

ASSOCIATED SCREEN NEWS

LIMITED

TIVOLI THEATRE BLDG.
TORONTO

5271 WESTERN AVENUE
MONTREAL

EMPRESS HOTEL
VICTORIA

RECENT ARCHITECTURAL BOOKS

The following is a partial list of architectural books which may be obtained from Architectural Publications Limited, at the published price, carriage and customs duties prepaid.

Architectural Graphic Standards —By Charles George Ramsey and Harold Reeve Sleeper.....	\$6.50
Design of Concrete Structures —By Urquhart and O'Rourke.....	4.00
A History of Architecture (Ninth Edition) . By Sir Banister Fletcher.....	12.00
Acoustics of Buildings —By F. R. Watson.....	3.00
Kidder-Parker Architects' and Builders' Handbook ...	8.00
New Building Estimators Handbook —By Wm. Arthur.....	6.00
Metal Crafts in Architecture —By Gerald K. Geerlings.....	7.50
Good Practice in Construction —By Philip G. Knobloch.....	6.00
Modern Danish Architecture —By Kay Fisker and F. R. Yerbury.....	10.00
Modern Architecture —By Bruno Taut.....	10.00
Modern Practical Masonry —By E. G. Warland.....	7.50
Modern Architectural Sculpture —By W. Aumonier..	17.50
Architectural Design in Concrete —By T. P. Bennett..	\$9.00
The Practical Requirements of Modern Buildings —By Eugene Clute.....	6.00
A History of the English House —By Nathaniel Lloyd.....	17.50
The Work of Sir Robert Lorimer —By Christopher Hussey.....	18.00
Old Houses in England —By Rowland C. Hunter....	8.50
Houses of the Wren and Early Georgian Periods —By Tunstall Small and Christopher Woodbridge..	8.00
American Apartment Houses of Today —By R. W. Sexton.....	16.00
American Commercial Buildings of Today —By R. W. Sexton.....	18.00
American Theatres of Today —By R. W. Sexton.....	13.50
American Public Buildings of Today —By R. W. Sexton.....	12.50

In addition to the above list, we carry in stock a large number of other architectural books which can be seen at the office of The Journal, R.A.I.C. A list of these books will be sent to architects outside of Toronto upon request.

ARCHITECTURAL PUBLICATIONS LIMITED

74 KING STREET EAST TORONTO, ONT.

Cheques payable to Architectural Publications Limited

3 BIG FEATURES

**STRENGTH
SANITATION
APPEARANCE**

Plus Lifetime Service

VICEROY
RUBWOOD
TOILET SEATS



The Rubwood Toilet Seat combines the three features so necessary for heavy duty in largely populated buildings. Strength is the outstanding characteristic of Rubwood Toilet Seats, which are built up of alternate layers of plywood and rubber, bonded together under tremendous heat and pressure. A heavy rubber cover is then vulcanized on, resulting in a moisture-proof, one-piece unit, non-porous, immune to discoloration and odors, and capable of withstanding great strain. Owing to the smooth finish, Rubwood Toilet Seats always have a neat and clean appearance.



CROSS SECTION VIEW showing the alternating layers of plywood and rubber, bonded together under tremendous heat and pressure.

Write for catalogue now.

**VICEROY MANUFACTURING CO. LIMITED
WEST TORONTO**

Branches: VANCOUVER — WINNIPEG — MONTREAL

INDUSTRIAL LIGHTING

LUMINAIRES



RLM DOME, BAYONET HEEL REFLECTOR AND SOCKET FOR CONDUIT MOUNTING FOR LAMPS FROM 50-1000 WATTS

VAPOR-PROOF DOME REFLECTOR WITH HOOD FOR CONDUIT MOUNTING FOR LAMPS FROM 75-500 WATTS



GLASSTEEL DIFFUSER, WITH BAYONET HEEL SOCKET FOR CONDUIT MOUNTING FOR LAMPS FROM 150-1000 WATTS



DEEP BOWL, BAYONET HEEL REFLECTOR AND SOCKET FOR CONDUIT MOUNTING FOR LAMPS FROM 25-1000 WATTS



VAPOR-PROOF DEEP BOWL REFLECTOR WITH HOOD FOR CONDUIT MOUNTING FOR LAMPS FROM 75-500 WATTS



SYMMETRICAL ANGLE, BAYONET HEEL REFLECTOR AND SOCKET FOR CONDUIT MOUNTING FOR LAMPS FROM 25-1000 WATTS



ELLIPTICAL ANGLE WITH BAYONET HEEL REFLECTOR AND SOCKET FOR CONDUIT MOUNTING FOR LAMPS FROM 60-1000 WATTS



VAPOR-PROOF ANGLE REFLECTOR WITH HOOD FOR CONDUIT MOUNTING FOR LAMPS FROM 100-500 WATTS



SHALLOW DOME, BAYONET HEEL REFLECTOR AND SOCKET FOR CONDUIT MOUNTING FOR LAMPS FROM 25-250 WATTS



VAPOR-PROOF CONCENTRIC REFLECTOR WITH HOOD FOR CONDUIT MOUNTING FOR LAMPS FROM 75-500 WATTS

CANADIAN WESTINGHOUSE COMPANY, LIMITED
 HEAD OFFICE: HAMILTON, ONTARIO
 BRANCH OFFICES AND REPAIR SHOPS IN ALL PRINCIPAL CITIES

8109

Westinghouse

Electric



CONTRACTORS

THE JACKSON-LEWIS CO.
LIMITED

General Contractors

HEAD OFFICE—FEDERAL BUILDING TORONTO

SULLIVAN & FRIED
LIMITED

General Contractors

81 VICTORIA STREET TORONTO

WALTER G. HUNT CO.
LIMITED

Engineers and General Contractors

1405 BISHOP STREET MONTREAL

ANGLIN-NORCROSS
CORPORATION, LIMITED

Contracting Engineers and Builders

MONTREAL TORONTO

NORTHERN CONSTRUCTION CO.
AND
J. W. STEWART LIMITED

Engineers and Contractors

MONTREAL TORONTO VANCOUVER

COOK & LEITCH

General Contractors

1440 ST. CATHERINE ST. WEST MONTREAL

BIRD, WOODALL & SIMPSON
LIMITED

Contractors and Engineers

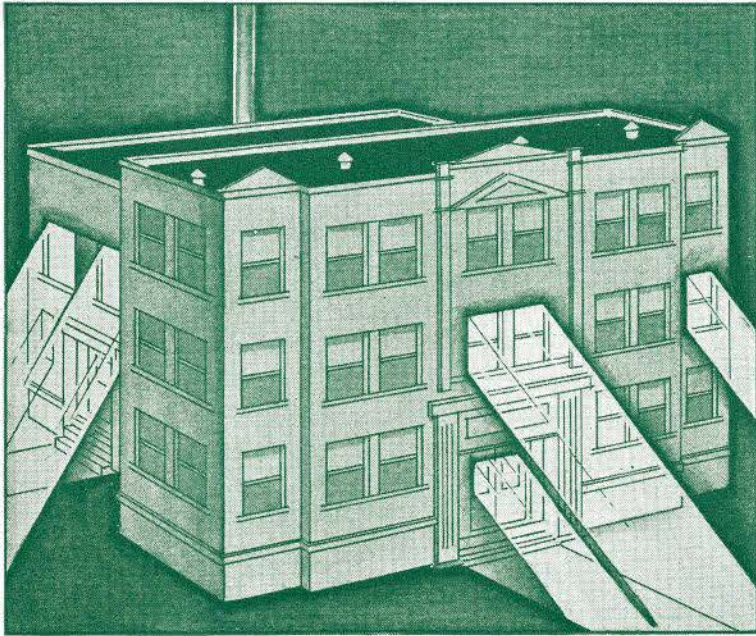
REGINA MOOSE JAW

A. W. ROBERTSON LIMITED

Contractors and Builders

FOOT OF SPADINA AVE. TORONTO 2, ONTARIO

Only Occupied Rooms



ARE HEATED!

ECONOMY
made possible by the
JOHNSON
DUAL SYSTEM of
Temperature Control

And **JOHNSON DUAL THERMOSTATS** In **SCHOOLS, OFFICE BUILDINGS, CHURCHES, LODGE HALLS**—almost every type of building—there is a time during the day or night when only a few rooms are occupied. **JOHNSON DUAL HEAT CONTROL** allows the heating of occupied rooms to suitable temperatures while unused sections of the building are maintained at a reduced temperature.

There is an "**ECONOMY TEMPERATURE**" for every building, depending upon the location and extent of the structure, the type of construction, the kind of heating plant, and various other considerations. It is not economical to allow the temperature in the building to fall below that **ECONOMY TEMPERATURE**.



Each **JOHNSON DUAL THERMOSTAT** is arranged to operate at either of two temperatures—a normal "occupancy" temperature and a reduced "economy" level All of the thermostats in the building are set to the reduced temperature at the close of periods of normal usage simply by the operation of a switch at a central location. By pushing a button on the thermostat in the room, the occupant may restore that one room, and that room only, to operation at the normal temperature Or the **DUAL THERMOSTATS** may be connected in groups,

so that various sections of the building may be operated separately. Even then, a single room may be cut from the group operation.

**JOHNSON TEMPERATURE REGULATING
COMPANY OF CANADA, LIMITED**

97 JARVIS STREET

TORONTO

Also at Montreal, Winnipeg, Calgary and Vancouver

JOHNSON
HEAT CONTROL