# THE IOVRILATION ALL ARCHITECTURAL INSTITUTE OF CANADA



Vol. XII, No. 10 OCTOBER, 1935

TORONTO



Delano and Aldrich, Architects

Hegeman-Harris Co., Inc., Builders

#### Anaconda Brass Pipe in the American Embassy in Paris

In the new American Embassy building in Paris . . . designed by Delano and Aldrich to fit into the historical setting of the Place de la Concorde... Anaconda Copper and Brasswere installed.

Anaconda 85\* Red-Brass Pipe . . . more than 30,000 lbs. of it . . . was used for water distribution lines; and Anaconda Sheet Copper for waterproofing the cellars and basement.

Throughout the civilized world, architects have made extensive use of Anaconda Copper, Brass and Bronze for many useful and ornamental purposes. These products meet every quality requirement and assure long-term economy . . . freedom from all annoyance and expense caused by rust.

#### ANACONDA AMERICAN BRASS LIMITED

Main Office and Mill: New Toronto, Ont. Montreal Office: Dominion Square Building



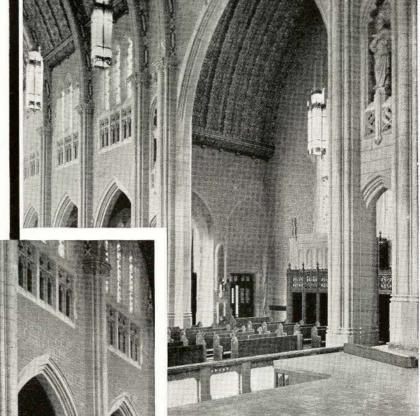
#### ANACONDA COPPER AND BRASS

<sup>\*</sup>Trade-mark registered



## The Beauty and DIGNITY of CONCRETE

The newly completed Valleyfield Cathedral utilizes the architectural possibilities of concrete as perhaps no previous Canadian building has done. Reinforced concrete is used as the basic structural material and manufactured units of concrete trim stone, combined with delicately coloured havdite ashlar blocks give beauty and permanence to the interior. Henri S. Labelle is the architect in collaboration with J. M. Lafleur and J. E. Perron as associates and Louis N. Audet as architect counsel. Deschamps & Belanger were the contractors.



Interior and exterior views of Valleyfield Cathedral showing interesting details executed in concrete.

#### CANADA CEMENT COMPANY LIMITED

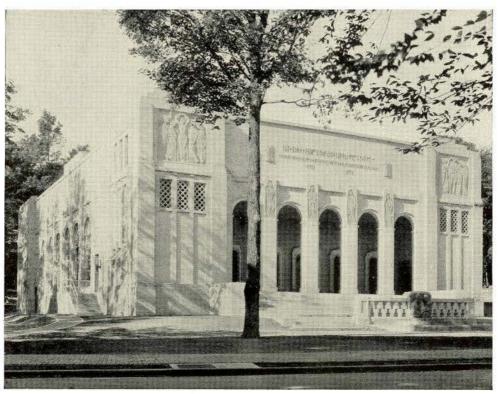
CANADA CEMENT COMPANY BUILDING PHILLIPS SQUARE MONTREAL

Sales Offices at: Montreal

Toronto

Winnipeg

Calgary



## For beauty and permanence at low cost... specify MONOLITHIC CONCRETE

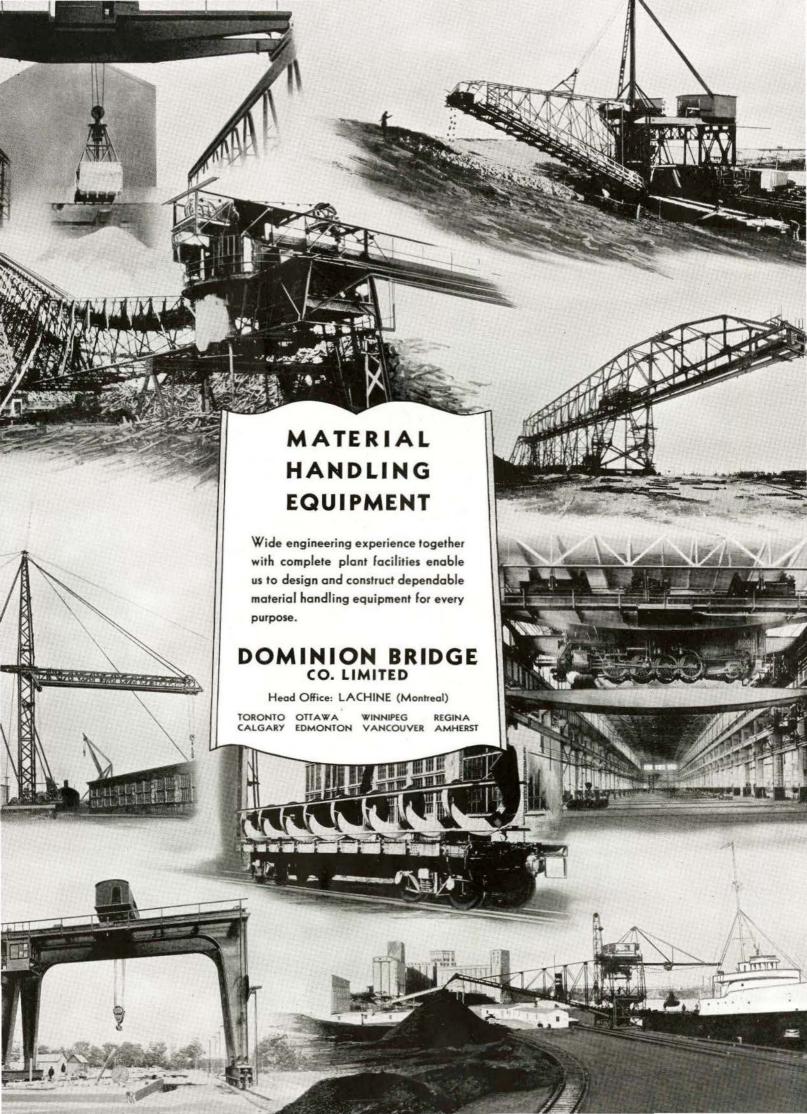
New York, exemplifies the unique advantages of monolithic concrete construction. The deed of gift specified a building of monumental design and permanent materials requiring minimum maintenance to be constructed within an allotted appropriation.

Otis Floyd Johnson, architect, and Lorado Taft, aesthetic adviser, chose concrete as the material offering the greatest architectural possibilities plus unusual durability and economy.

The entire exterior is of concrete left in its pleasing natural color—even the sculptural details which were cast in plaster forms. The pierced balustrades, steps and door architraves are of pre-cast concrete. Investigate the possibilities of concrete construction for memorials, office buildings and homes. On request we will send monographs covering specifications, form work, parapets, windows and other details of monolithic concrete work. You will also want the new illustrated booklet "Beauty in Walls of Architectural Concrete," free on request.

#### PORTLAND CEMENT ASSOCIATION

Room 6110, 33W. Grand Ave., Chicago, Ill.





#### THE JOURNAL

#### ROYAL ARCHITECTURAL INSTITUTE OF CANADA

Serial No. 122

TORONTO, OCTOBER, 1935

Vol. XII, No. 10

#### CONTENTS

THE BATTLE OF THE STYLES, BY SIR GILES GILBERT SCOTT, R.A	159
AD REM	161
SPANDREL PANELS FOR THE DOMINION PUBLIC BUILDING, GUELPH, ONTARIO	161
FORT YORK ARMOURY, TORONTO	162
AN EXPLANATION OF THE DOMINION HOUSING ACT	166
NEW YORK MAYOR ADOPTS NEW METHOD FOR SELECTING ARCHITECTS IN PRIVATE PRACTICE TO CARRY OUT MUNICIPAL WORK	167
THE VALUE OF STANDARDIZATION TO ARCHITECTS, BY HERBERT E. MOORE, F.R.A.I.C	170
DEPARTMENT OF ART, SCIENCE AND RESEARCH	171
ACTIVITIES OF THE INSTITUTE	172
ACTIVITIES OF PROVINCIAL ASSOCIATIONS	173
NOTES	174
PLATE ILLUSTRATIONS	
MAIN ENTRANCE—EASTERN BEACHES BOAT HOUSE, TORONTOFRONTISP	TECE
FORT YORK ARMOURY, TORONTO—VIEW FROM THE SOUTH-WEST	163
MAIN ENTRANCE—FORT YORK ARMOURY, TORONTO	164
OFFICERS' MESS, THE TORONTO REGIMENT—FORT YORK ARMOURY, TORONTO	165
RESIDENCE IN WESTMOUNT, QUE	168
STAIR HALL—RESIDENCE IN WESTMOUNT, QUE	169

#### PUBLISHED EVERY MONTH FOR THE

#### ROYAL ARCHITECTURAL INSTITUTE OF CANADA

Editor-I. MARKUS

#### EDITORIAL BOARD

PHILIP J. TURNER (F) WM. Bow CECIL S. BURGESS (F) L. N. AUDET

W. L. SOMERVILLE (F), Chairman FORSEY P. PAGE L. R. FAIRN E. J. GILBERT B. Evan Parry (F)

BURWELL R. COON EMILE VENNE MILTON S. OSBORNE (F) H. L. FETHERSTONHAUGH W. W. ALWARD

PUBLISHERS:

ARCHITECTURAL PUBLICATIONS

LIMITED

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.

#### THE ROYAL ARCHITECTURAL INSTITUTE OF CANADA

#### FOUNDED 19th AUGUST, 1907

INCORPORATED BY THE DOMINION PARLIAMENT 16th JUNE, 1908, 1st APRIL, 1912, AND 14th JUNE, 1929

#### ALLIED WITH THE "ROYAL INSTITUTE OF BRITISH ARCHITECTS"

FEDERATION OF THE ALBERTA ASSOCIATION OF ARCHITECTS; THE ARCHITECTURAL INSTITUTE OF BRITISH COLUMBIA; THE
MANITOBA ASSOCIATION OF ARCHITECTS; THE NOVA SCOTIA ASSOCIATION OF ARCHITECTS; THE ARCHITECTS
ASSOCIATION OF NEW BRUNSWICK; THE ONTARIO ASSOCIATION OF ARCHITECTS; THE PROVINCE OF
QUEBEC ASSOCIATION OF ARCHITECTS; THE SASKATCHEWAN ASSOCIATION OF ARCHITECTS

#### OFFICERS 1935

PRESIDENT	W. S. MAXWELL (F)	1158 BEAVER HALL SQUARE, MONTREAL
FIRST VICE-PRESIDENT	MILTON S. OSBORNE (F)	UNIVERSITY OF MANITOBA, WINNIPEG
SECOND VICE-PRESIDENT	G. W. WILSON	
HONORARY SECRETARY	ALCIDE CHAUSSE (F)	
HONORARY TREASURER	W. L. SOMERVILLE (F)	2 BLOOR STREET WEST, TORONTO

#### SECRETARY, I. MARKUS, 74 KING STREET EAST, TORONTO

#### COUNCIL 1935

REPRESENTATIVES OF THE R.A.I.C. ON THE COUNCIL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS
PHILIP J. TURNER (F), F.R.I.B.A., Montreal
SIR RAYMOND UNWIN, F.R.I.B.A., London, England

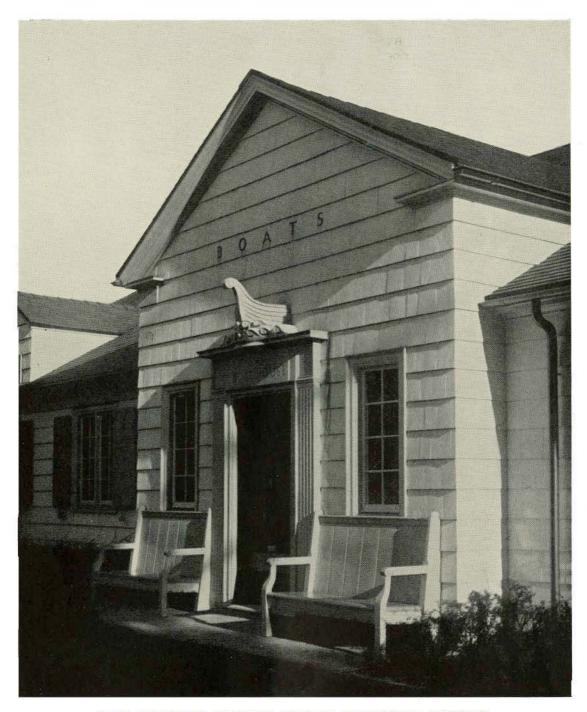
#### **EXECUTIVE COMMITTEE 1935**

W. S. Maxwell (F), President; Alcide Chausse (F), Honorary Secretary; W. L. Somerville (F), Honorary Treasurer; L. A. Amos (F); Ernest Cormier (F); H. L. Fetherstonhaugh; Henri S. Labelle Philip J. Turner (F); Ludger Venne and I. Markus, Secretary

#### PAST PRESIDENTS

*A. F. Dunlop, Montreal1907-08, 1908-09, 1909-10	DAVID R. Brown (F), Montreal1920-21, 1921-22
*F. S. Baker, Toronto1910-11, 1911-12	LEWIS H. JORDAN, Winnipeg1922-23, 1923-24
J.H.G. Russell (F), Winnipeg. 1912-13, 1913-14, 1914-15	*JOHN S. ARCHIBALD (F), Montreal1924-25, 1925
J. P. OUELLET, Quebec1915-16, 1916-17, 1917-18	J. P. Hynes (F), Toronto
A. Frank Wickson (F), Toronto1918-19, 1919-20	PERCY E. NOBBS (F), Montreal1929, 1930, 1931
GORDON M. WEST (F), Toronto	
*Danagard	

\*Deceased



MAIN ENTRANCE—EASTERN BEACHES BOAT HOUSE, TORONTO Murray Brown, F.R.A.I.C., Architect

#### THE BATTLE OF THE STYLES\*

BY SIR GILES GILBERT SCOTT, R.A.
PRESIDENT OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

SOMETIMES wonder why our modern times are characterized so much by the written and spoken word—is it cheap printing and broadcasting? Whatever it is, words seem to rule us; nations are swayed and driven crazy by words, and in art one cannot but be amazed at the amount of written or spoken comment that appears, without any apparent effect upon the quality of work produced by artists, except that it is rather worse than it was in days when men talked less.

In architecture there are usually two main schools of thought, and as these two schools are in constant conflict this provides great fun for the writing and word merchants. If one tries to analyse the cause of this dissension it seems to me to be due, fundamentally, to the importance attached by different individuals to two qualities latent in every human being, the intellect and the emotions-derived, I suppose, from the conscious and the subconscious mind. In many of us one or other of these dominates; in one person you find the cold intellectual; in another the temperamental romanticist. The extremists, being more vocal, form around them schools of thought, which I might broadly dub "The Thinkers" and "The Feelers," the "Thinkers" being those who favour the scientific, logical and practical approach to architecture, and the "Feelers" those who are guided more by their instinctive feelings, emotions and reactions. We find architectural issues fiercely contested by protagonists who are swayed either by thought or by feeling. The old battle of the styles has existed with us ever since a live tradition in architecture ceased to exist-as, for instance, the Classic versus Gothic struggle of my grandfather's time, which may be quite broadly regarded as a struggle between the "Thinkers" and the "Feelers," the Classic School of the Victorian epoch being the exponents of the conscious, thinking mind, coldly intellectual and scholarly, and the Gothic the subconscious, romantic, emotional mind.

The present controversy of Modernism versus Traditionalism is the same issue under other names. Modernism, by its attempt to approach architecture purely from the functional and materialistic point of view, appeals to the scientific or thinking side of our minds, and by its extremism has made, by contrast, all Traditionalists appear Romantics. The two schools have certain characteristics that differentiate them. The "Thinkers," who pride

themselves on being scientific, are essentially urban-minded; they have developed a town mentality, and this is combined with an enthusiasm for machinery and its characteristics of smooth, hard finish, more in keeping with the character of a large town. Whereas the "Feelers" are more rural-minded and have a preference for the work of man, with its characteristics of roughness and texture, which they feel to be more in keeping with the roughness of Nature. They feel that extreme modern architecture is not at home in rural surroundings; its hard, mechanical smoothness seems ill at ease with the roughness of the earth, hills and rocks, in the same way that a shining motor car looks better in the streets of a town than on the grass of a country meadow; and though the extreme Modernists might like to chisel and enamel the chalk cliffs of England to make them smooth and shiny and render them more in keeping with the slick machinery ideal of their dreams, their opponents aim rather at blending their work with rough Nature, as was so successfully done in the architecture of the past, and so well exemplified by the old grey castles of Scotland that blend so well with their surroundings.

Scotland, with its glorious rugged hills and rocks, would not be considered by the "Feelers" a suitable background for a modern machine type of building, as they consider it wrong to set up a smooth, hard, urban ideal in a rough and wild natural setting, and they argue that an essentially machine ideal an ideal inspired by man's admiration for his own mechanical creation—can never inspire his efforts in art to anything like the same extent as God's own work expressed in Nature. In the past artists have always drawn their inspiration from Nature, and the architects of the past were no exception, with the result that their buildings blended with Nature. In viewing a fine piece of architecture how often does the vision of some natural feature, like a great cliff or forest of trees, spring to the mind, and, vice versa, how often in viewing a mountain, cliff or avenue of trees are we not reminded of architecture? This may be true of architecture of the past; it is not true of modernist architecture, which immediately brings to mind the machine, the ship, the aeroplane, and other works of man's invention, rather than Nature.

It is interesting to notice how the swing of the pendulum puts first one school in the ascendant and then the other. During the height of the Gothic Revival, the Romantics or "Feelers" held the stage; some consider that this wave of enthusiasm was

the and ool with the National offerus, great and cliffuses. arclines. arclines imm the matter than the state of the state

<sup>\*</sup>From an address given by the president of the R.I.B.A. on the occasion of the British Architects' conference at Glasgow, Scotland, on June 20th, 1935.

started by the romantic writings of Sir Walter Scott. In these modern days, however, the pendulum has made full swing, and the "Thinkers" are strongly in the ascendant; the modern approach is well expressed by Mr. Lorne when he states that the modern architect "will have to approach his problem with the attitude of the scientist and be guided in his work by fact more than romantic sentimentalism."

Of course, neither school is entirely right nor entirely wrong. The scientific approach to architecture in so far as it concerns planning, construction and materials is essential, but this is not enough; man, being what he is, demands something more than the scientific satisfaction of his material requirements, nor is the purely artistic approach to architecture enough, but it is just in deciding where and how this quality that appeals to man's feelings, call it art or what you will, can be brought in that we find ourselves in difficulties.

Though the modernist may claim that his effects arise naturally from a logical working out of the problem and not from design, it is quite clear that by using the grouping and massing of parts and the pattern of window openings he does design. The trouble is, he tries to play many tunes on these two notes, with the result that modern architecture is becoming monotonous and boring, and the prospect of continuous playing on these two notes for ever is alarming. One wonders what escape there is from the apparent cul-de-sac into which modernism seems to have found itself. Change there will inevitably be, but as the change that comes from new methods of construction and materials will be too slow to keep pace with the demand for relief from monotony, is it possible that we shall again see the introduction of useless ornamental shapes and decoration, eventually developing into a Baroque Functionalism?

An escape is possible by a certain sacrifice of dogma; for instance, by a more frank recognition of the influence of surroundings upon the choice of materials and the technique of their use. Or could not the advantages of modern developments be combined with materials that, though not modern have stood the practical test of time far more satisfactorily than some modern materials seem ever

likely to do? My plea is for a frank and commonsense acceptance of those features and materials which are practical and beautiful, regardless as to whether they conform with the formula of either the Modern or the Traditional school.

For instance, if external reinforced concrete walls have practical objections and defects as regards waterproofing, insulation and cracking, and require constant attention and expense to keep them from becoming grubby and depressing, why should they be used just because their use complies with the accepted formula of modern expression? "Use modern materials" is the correct slogan, I believe, but "Use common sense" is better. Large span window openings are often an advantage, but I fear they are sometimes used when actually disadvantageous, merely because they conform with the modern formula that all buildings, especially their staircases, must have large areas of glass.

Again, if a pitched, slated or tiled roof has certain advantages over an entirely flat roof, such as being cheaper, giving greater insulation, and providing an accessible space for cisterns and horizontal runs of services, why not use it, in spite of its not being the sort of covering you expect to find on a locomotive or an aeroplane?

However, it is easy to tilt at the more extreme expressions of modernism, in the same way that stupid "period" reproductions in Ye Olde Tea Shoppe Tudor style may be laughed at as the product of traditionalism.

But modern developments have undoubtedly brought a breath of fresh air into what had become a stagnant architectural atmosphere, and now that the modern expression has affected most architects, it is to be hoped that it will, by trial and error and elimination of mere stunts, gradually develop into a tradition enabling all architects to work in the same style, as occurred before the break-up of tradition a century or so ago. The result of all architects in the country working in the same style cannot but be beneficial and tend to improve quality, for thus, and thus only, can we get the gradual development and evolution such as has characterized all the architectural history of the world.

#### AD REM

For nearly a century now, buildings have been divided into two classes, those that come under the heading of architecture and those that are referred to as mere buildings. Recently a third classification has been made necessary to cover those structures, which may or may not be architecture, but are most certainly not buildings. They are not "built," they are "assembled." The materials of construction are not "worked" they are "prefabricated." The trowel, the chisel and the plane have given way to the blow torch, the monkey wrench and the hydraulic press. Bricks, stones and timber are "taboo," and all honour is done to asbestos, steel and a host of synthetic articles, whose names usually end in "ex." The painter's brush is replaced with an atomizer and the lowly nail bows to the bolt and nut. The hosts of standardization under the banners of science, progress and invention, are storming the architectural citadel. The outer walls, namely the kitchen and the bath room have

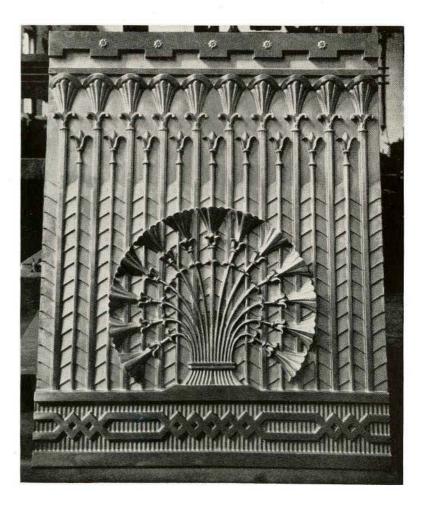
already fallen, and the attack on the house as a whole, is under way. The resistance of the defenders to date has not been serious; in fact the invaders have been somewhat grudgingly welcomed. Let us hope that our hospitality will not be rewarded as was the Arab with his camel; but rather that we treat our visitors as our conquerors. The peculiar thing about conquests is, of course, that the thing that the invaders intend to do, and that the defenders are afraid they will do, never happens. The Normans conquered England and the Manchus conquered China, whereupon both the English and the Chinese proceeded to swallow, digest and completely absorb their respective conquerors. Would it not be wise, therefore, not to attempt to kill off the invaders but rather let him in with the idea of eventually making a meal of him. There are some tasty morsels to be digested which will do architecture no harm, and most likely a lot of

#### SPANDREL PANELS

FOR THE

DOMINION PUBLIC BUILDING GUELPH, ONTARIO

> Designed by Vaux Chadwick, M.R.A.I.C., Architect for the building



These Spandrel panels are set between the first and second floor windows, and are cast in bronze, in one piece, 5'0" wide and 6'6" high. The windows are of metal to match. The building is of a modified modernistic design, of classic proportions, but with Egyptian detail and ornamentation, these panels carrying out that motif. The fretted band at the bottom of each panel forms a lintel over the window on the first floor, and the labelled band at the top, a sill for that on the second floor.



DRILL HALL—FORT YORK ARMOURY, TORONTO

Marani Lawson and Morris MMM.R.A.I.C., Architects

#### THE FORT YORK ARMOURY, TORONTO

MARANI, LAWSON AND MORRIS, ARCHITECTS

HE new armoury for the Fourteenth Infantry Brigade occupies an important site on Fleet Street in close proximity to the Canadian National Exhibition.

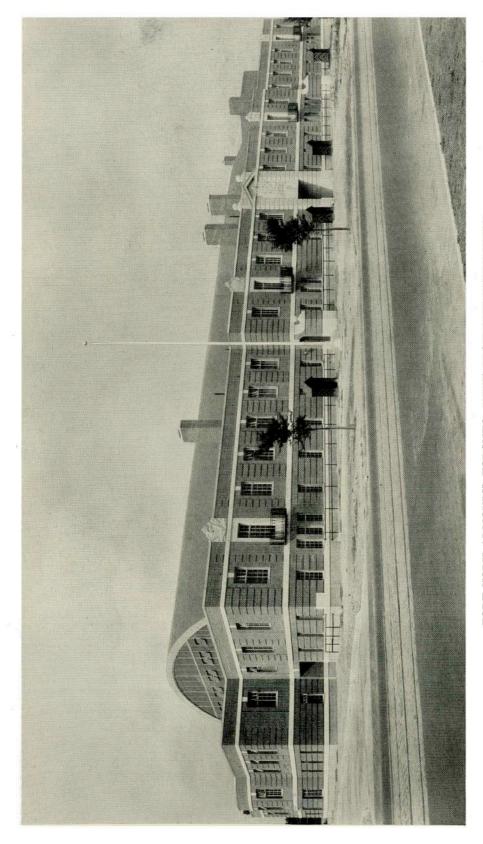
To provide the required accommodation for the various units comprising the Fourteenth Infantry Brigade, the architects found it necessary to design the building with two storeys and basement on the south side and three storeys on the north side, enclosing a drill hall one hundred and twenty-five by two hundred and thirty-eight feet.

Located in the basement are training rooms, locker rooms, vehicle storage, rifle ranges, mechanical equipment and caretaker's apartment. On the first floor surrounding the drill hall are the company rooms, orderly rooms, office and canteen. The second floor contains officers' messes on the south side, sergeants' messes and drum rooms on the north, lecture rooms on the west, and engineer officers' and sergeants' messes and lecture room on the east. Band rooms occupy the third floor at which level there are also flat decks for open-air band practice.

The building is of red brick and dressed stone. The main entrance is emphasized by pilasters of rusticated masonry with a large carved coat-of-arms of the Dominion of Canada above the flat keyed arch over the entrance. Set into the parapet over the stoned trimmed doorways opening up on ornamental iron balconies are the coats-of-arms of each regiment carved in stone.

Structurally the building has concrete basement walls with exterior walls above grade of red brick with tile backing and stone trim. The floor construction is of the concrete beam and slab type and the exposed walls of the drill hall are of red pressed brick to the line of the gallery with cinder blocks above. The roof of the drill hall is of the Lamella type providing a clear uninterrupted span of one hundred and twenty-three feet, eight inches.

The architects for the building were Messrs. Marani, Lawson and Morris of Toronto, and the general contractors were the W. H. Yates Construction Company, Hamilton.



FORT YORK ARMOURY, TORONTO—VIEW FROM THE SOUTH-WEST Marani, Lawson and Morris, M.M.M.R.A.I.C., Architects

Page 163
October, 1935



MAIN ENTRANCE—FORT YORK ARMOURY, TORONTO

Marani, Lawson and Morris, MMM.R.A.I.C., Architects



OFFICERS' MESS, THE TORONTO REGIMENT—FORT YORK ARMOURY, TORONTO

Macani, Lawson and Morris, MMM.R.A.I.C., Architects

### AN EXPLANATION OF THE DOMINION HOUSING ACT

HE ten million dollars appropriated by the Federal Government under the Dominion Housing Act is intended to assist in the construction of houses and should make possible a new construction programme involving an expenditure for direct labour and building materials of between forty and fifty million dollars.

The act provides that the Minister of Finance may enter into contracts with local authorities or with approved lending institutions for the making of loans to prospective home-owners or builders up to 80% of the cost of construction or the appraised value of the property on the security of a first mortgage to be held jointly by the government and the lending institution.

Approved Lending Institutions: The contract between the Minister of Finance and the approved lending institutions covers the conditions under which government funds will be made available to prospective house builders. Up to the present time the following lending institutions have executed the agreement with the Minister of Finance and have been approved by the Governor-in-Council.

Insurance Companies:

Sun Life Assurance Company of Canada, Montreal, Que.

London Life Insurance Company, London, Ont. North American Life Assurance Company, Toronto, Ont.

Mutual Life Assurance Company of Canada, Waterloo, Ont.

Great West Life Assurance Company, Winnipeg, Man.

The Northern Life Assurance Company of Canada, London, Ont.

Canada Life Assurance Company, Toronto, Ont.

Trust Companies:

The Grey & Bruce Trust & Savings Company, Owen Sound, Ont.

Community Trusts Corporation, Chatham, Ont. The Sterling Trusts Corporation, Toronto, Ont. Capital Trust Corporation, Limited, Ottawa, Ont. The Premier Trust Company, Toronto, Ont. Guardian Trust Company, Montreal, Que.

Osler and Nanton Trust Company, Winnipeg, Man.

The Ontario Loan & Debenture Company, London, Ont.

The Central Trust Company of Canada, Moncton, N.B. Under the terms of the act, the prospective borrower will not apply to or have direct contact with a government department, but will make his application for a loan directly to an approved lending institution.

Eligible Borrowers: A loan will be made only in the case of a house, the erection of which has commenced after the date of the passing of the act, namely, July 5th, 1935. It will be made only to assist in the construction of new houses and not for the repair or rehabilitation of old buildings. A house is defined to include any building intended exclusively for human habitation, comprising one or more self-contained dwelling places. In other words, a loan may be secured to build either a single dwelling or a duplex or a building containing several apartments.

Amount of Loan: In the normal case, it is intended that loans shall be made up to 80 per cent of the cost of construction or the appraised value of the house, whichever is the lower. Cost of construction is defined to include, as well as the expenditure for building, the cost of the land, legal expenses connected with any loan and other expenses necessary to complete the house. The appraisal as to value is to be made by a skilled appraiser who may be an employee of the lending institution but the contract provides that the minister may also in any case where he so desires cause an appraisal of value or an investigation as to the cost of construction to be made by his duly authorized representative.

Furthermore, it is provided that in the case of a single dwelling, which is being built for the purpose of sale, twenty-five per cent of the amount of the proposed loan shall be withheld until the house has been sold to a purchaser on terms of sale satisfactory to the lending institution. Also, in the case of a multiple dwelling place which is being built for rental purposes, twenty-five per cent of the amount of the proposed loan is to be withheld until the building becomes ninety per cent occupied and the leases for such occupation are satisfactory to the lending institution.

All applications for loans shall be made, in the first instance, to the lending institutions. If the application is approved, the lending institution will submit the application to the Minister who will in due course notify the lending institution of his approval or rejection of the application.

While it is desired particularly to stimulate the construction of homes for individuals of low or

moderate incomes, it was not found practicable or advisable to place any limit on the cost of a house or building to be financed under the terms of the act.

Terms of Mortgage: The mortgage taken as security for the loan will be a first mortgage running jointly to His Majesty the King in the right of the dominion and to the lending institution. It will run for a period of ten years, but will contain a provision that, subject to a revaluation of the security, it may be renewed for a further period of not more than ten years on conditions mutually agreed upon at the time of renewal by the parties thereto.

The mortgage will provide for monthly payments to cover the interest on the loan, the repayment of principal and the estimated taxes on the property. It was believed that this system of monthly payments would make it easier for persons of small or moderate incomes to keep up their payments on the mortgage, and would contribute to the soundness of the investment made by the government. The repayment of principal is to be made on the basis of amortization tables attached as schedules to the contract. These tables provide for complete amortization of the loan over a period of twenty years, but provision is made for more rapid amortization if the borrower so desires. As the interest is so low and the amortization so gradual, the monthly payments are very moderate in amount and if the payments are kept up for a period of twenty years it should be possible for an individual borrower under the act to own his home outright at the end of twenty years on the basis of monthly payments that would be reasonably comparable with ordinary commercial rents.

Limitation of Interest Rates: The government's contribution has made it possible to make available

to borrowers mortgage money at exceptionally low rates. The government will receive 3 per cent on the advances made by it and as a result the rate of interest to be paid by the home-owner on the total loan received by him (whether 80 per cent or less) will not be in excess of 5 per cent per annum. Furthermore, all fees or other charges payable by the borrower for legal services, appraisals, etc., are to be subject to the approval of the Minister of Finance.

Assurance of Sound Standards of Construction: The contract provides that any house constructed pursuant to its terms shall conform to sound standards of construction and the lending institution shall require plans and specifications to be submitted to it in order to insure that such plans and specifications conform with the provisions of the contract. The Minister of Finance will also cause to be prepared a schedule of minimum specifications of such standards of construction and when prepared this schedule will provide at least the minimum requirements for any buildings financed under the act.

The contract also provides that during the period of construction the lending institution shall exercise by periodical inspections such supervision over the construction as will reasonably assure that the contractor or builder is properly and faithfully carrying out the work of construction according to the provisions of the contract.

The Minister of Finance is also given power to send duly authorized representatives to inspect houses or buildings in process of construction and if he is not satisfied that such construction meets the requirements laid down he may notify the lending institution to that effect and no further advances will be made until such construction is satisfactory to the minister.

#### NEW YORK MAYOR ADOPTS NEW METHOD FOR SELECTING ARCHITECTS IN PRIVATE PRACTICE TO CARRY OUT MUNICIPAL WORK

A reform in the method of selecting architects for municipal construction work is to be introduced by Mayor La Guardia of New York. According to the Municipal Art Society, during the past ten years six architectural firms have been favoured with the bulk of the municipal buildings.

Through the Civil Service Commission the Mayor requested the presidents of eight societies of architects and laymen interested in architecture, representing all the boroughs, to select a panel of three outstanding architects and an alternate to co-operate unofficially with the commission in the

preparation of a list of architects particularly fitted to handle special works projects for the city.

The jury of three selected was I. N. Phelps Stokes, Ralph T. Walker and Kenneth M. Murchison, with William A. Sanders as alternate.

All registered architects in the city will receive a questionnaire. The jury will consider the answers in selecting the panel of fifty from which it is understood the architectural appointments by the city during the rest of this year will be made. If the method proves successful, it is expected to be continued during the present administration.



RESIDENCE IN WESTMOUNT, QUE. Grattan D. Thompson, M.R.A.I.C., Architect



STAIR HALL—RESIDENCE IN WESTMOUNT, QUE.

Grattan D. Thompson, M.R.A.I.C., Architect

Page 169 October, 1935

#### THE VALUE OF STANDARDIZATION TO ARCHITECTS

BY HERBERT E. MOORE, F.R.A.I.C.

N times past architects generally were inclined to regard "standardization" as anathema; to them it meant cheapness and deadly uniformity at the expense of personal taste and individuality; in fact the mere mention of the word left them either cold and unresponsive or it generated a dangerous blood pressure often resulting in a "pop off" that was a thing to behold and endeared them greatly in the eyes of their fellow practitioners as defenders of all that was aesthetic.

But today architects realize the value of national standardization; they know that its proper application serves to promote rather than restrict the science of building and they are ready to adopt measures designed to increase efficiency, eliminate waste and facilitate the execution of good work. Old methods of trial and error have no place in modern construction and definite knowledge regarding the properties of the materials used in building are regarded as essential to successful practice.

In Canada, under the Canadian Engineering Standards Association, a number of useful standard specifications have been issued covering certain building materials, viz.: cement, concrete (plain and reinforced), and steel (structural and reinforcing). In each case the benefits resulting from their adoption have been far reaching, and with a view to further development, the Royal Architectural Institute of Canada in 1932 made a direct request to the C.E.S.A. for investigation and promotion of standards covering other building materials, specific mention being made of building brick, in the manufacture of which it was pointed out there was a useless and confusing multiplicity of sizes that might well be eliminated in the interest of simplified practice.

In acceding to this request, the C.E.S.A. made it quite clear to all interests represented at its conference that standards should originate in response to a generally recognized need, and at the same time embody more or less the views of all those who are expected to employ them. With this in mind, the committee on brick sizes, appointed by the C.E.S.A., sent out a questionnaire to all interests, including the architectural and engineering professions, the Canadian Construction Association, the technical heads of government, municipal and educational building departments, builders associations, and brick manufacturers. The answers to this questionnaire proved conclusively that there was an almost unanimous opinion in favour of standard dimensions for brick, and with this information at hand the committee continued its investigations which resulted in the publication by the C.E.S.A., under copyright form, of the document "Standard Dimensions for Building Brick," copies of which are now available at the C.E.S.A. headquarters in the National Research Building, Ottawa.

In reviewing this whole question of brick sizes as considered by the committee, the following matters seemed of special importance as they had a direct bearing on the final recommendations:

- 1. Reason for a standard. A general desire on the part of architects, engineers, builders and allied interests for simplified practice and intelligent economy which would result in the elimination of excess sizes of brick that in present day practice frequently involve delay, inconvenience and confusion in the preparation of plans and specifications, and in the execution of work.
- 2. The aesthetic value of brick in the opinion of many architects, lies greatly in the variety of colour and in the skill employed in the use of various bonds, rather than in a multiplicity of sizes. Skill in the use of a standard size and standard shapes amplified by the manufacture of special sizes and shapes to meet special requirements would seem to be the logical manner of dealing with our brick problems.
- 3. It is necessary to recognize in attempting to standardize dimensions that there must be variations in size on account of the variations in shrinkages. The standard dimensions therefore must be understood as being the average dimensions of an entire unit of production. This explanation is made in view of a misunderstanding that seems to exist in the minds of many that standard dimensions would mean a definite size without any tolerances or in other words variations due to burning. The dimensions of the standard published, namely  $2\frac{3}{8}$ " x 4" x  $8\frac{3}{8}$ ", represents the average size of the largest percentage of brick now produced in the majority of plants throughout the Dominion.
- 4. Unanimity of opinion among architects in England, Australia, and South Africa favouring the comparatively recent promotion of standard brick dimensions in those countries and the successful results following the adoption some ten years ago of brick size standards in a large area in the United States, is proof that the benefits of standardization are becoming generally recognized.
- 5. To meet the demands of repairs and extensions to existing buildings with brick of the same

size as originally used, there would seem to be no reason why manufacturers should not keep their original dies from which production could be made when occasion requires. It should be made clear, however, that such production would be limited to this particular demand.

- 6. The successful adoption of a standard is dependent not on legislation, but on the measure of co-operation which the movement receives from all interests and in this respect the C.E.S.A. points out that practically all interests involved are a unit in the expressed opinion that the success of the standard size lies greatly with the architects in the extent to which they influence adherence by their specifications. The co-operation of the manufacturers is equally necessary for success, many of whom would have to adjust their plants to meet the requirements of the standard.
- 7. No pressure had been exerted by any interests to adopt any particular standard, the object of

the committee being to agree on a size or sizes that would meet with general approval.

In the work of promoting a national standard, the R.A.I.C. has taken its full share, but there is much remaining to be done in the way of education and propaganda if the measure is to meet with general adoption. Because of time and expense involved in the travel of great distances, it is impossible to assemble a conference of all interests that would be fairly representative, and for this reason the component societies of the R.A.I.C. can do much in their respective provinces to make the standard effective.

The C.E.S.A. is an organization in close touch with modern technical and industrial progress; it is impartial in its methods and has the confidence of Canadian industry, and in the publication of the various standards on building materials it is deserving of the support of architects and all those connected with the building industry.

#### DEPARTMENT OF ART, SCIENCE AND RESEARCH

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

The following are excerpts from Building Science Abstracts. Published by His Majesty's Stationery Office, London, England.

#### FAILURE OF BITUMEN INSULATION

C. R. Platzmann: Bautenschutz, 1935, 6 (1), 12-6. In most cases blistering of bituminous insulating coatings is not attributable to the bitumen itself but to the nature of the backing, its condition when the coating was applied, and the method of application. A cellar sub-floor in concrete coated with asphalt and having a magnesium oxychloride cement topping developed blisters as soon as the cellar was heated. This was apparently due to movement of water from the concrete. It was found that the bitumen adhered to the magnesium oxychloride cement surfacing but not to the concrete, and that the lower surface of the bitumen was damp. It was evident that the concrete had not dried out before the hot bitumen was applied. Adhesion of the bitumen to the concrete would have been satisfactory if a first coating of bitumen, applied cold, had been used. A cold bitumen of good quality which was sprayed on part of a concrete dam showed scaling at different places where most exposed to the sun. It was found that at such places the concrete was crumbling. This was attributed to too rapid drying out during initial hardening. In some cases, blistering of bituminized roofing paper appears to have been due to the paper used. This may contain up to 7 per cent. of moisture and when bituminized by cold soaking and not by impregnation with a hot bitumen may retain a large proportion of this moisture and blistering would be likely to occur in a roof covering of this type, when exposed to a hot sun, Surfaces to which bituminous coatings are to be applied should be dry and clean, and 3 or 4 days should elapse between the application of successive coatings to allow all the solvent to evaporate. In the case of very dense surfaces, a first, fluid coating should be applied to serve as anchorage for the following coat-three coats instead of the more usual two would then be necessary. (Vol. VIII, No. 3, March, 1935)

What Europe knows about the Weather Resistance of Masonry: L. A. Palmer: Am Ceram. Soc. Bull., 1934, 13 (12), 328-30.

It is thought that American investigators have in many cases overstressed the importance of certain properties of masonry units and mortars in their relationship to the weather resistance of buildings, and that European investigators have had better opportunity to correlate the results of laboratory tests with observations of the behaviour of ancient buildings. This suggestion is supported by references to and citations from the reports published by Kreuger (Transactions of the Royal Swedish Institute for Scientific and Industrial Research) the results of which it is thought, although reached by different methods of approach, are in good agreement with the present author's own conclusions. (Vol. VIII, No. 1, January, 1935).

Copper Dampcourses: Building Research Station: R.I.B.A. Journal, 1935, 42 (6), 382-3.

The physical and mechanical properties of soft-temper copper are considered favourable to the use of this metal for damp-proof courses. A search has been made of the literature with the object of discovering information bearing upon the durability of copper from the point of view of corrosion as a damp-proof course. None bearing directly upon the behaviour of copper in this respect has been obtained, but observations upon the effect of lime and cement solutions upon the behaviour of copper embedded in cement suggest that the effects of lime and Portland cement will not be destructive. Copper for use in damp-proof courses should be soft-temper copper, complying with the requirements of clause 2 of British Standard Specification No. 61, and with a minimum weight of 16 oz./sq. ft. Joints should be made by lapping the sheets to a distance of 3 in. (Vol. VIII, No. 1, January, 1935).

#### ACTIVITIES OF THE INSTITUTE

A meeting of the executive committee of the council of the Royal Architectural Institute of Canada was held in the rooms of the Institute, 627 Dorchester St. W., Montreal, on Tuesday, September 24th, 1935, at 10.30 a.m.

Present: Messrs. W. L. Somerville, honorary treasurer; Alcide Chaussé, honorary secretary; H. L. Fetherstonhaugh; Philip J. Turner; Henri S. Labelle; and I. Markus, secretary. Due to the absence of the president in Europe, Mr. W. L. Somerville acted as chairman of the meeting.

R.A.I.C. Exhibitions: The meeting was informed that the Art Association of Montreal had agreed to allocate one of their galleries to the Institute for the forthcoming R.A.I.C. Exhibition, and that the Institute had also been invited to hold its exhibition in conjunction with the Royal Canadian Academy Exhibition which is to open at the Montreal Art Gallery on November 21st, 1935.

Mr. Labelle, chairman of the committee on exhibitions and awards, informed the meeting that upon being advised of this, his committee had decided to proceed with the arrangements for this year's exhibition, and that the conditions had been drafted and published in the September issue of The Journal. The action of the committee on exhibitions was approved by the meeting.

It was decided that the jury of award should consist of three architects including one from outside the province of Quebec. The personnel of the jury to be selected by the president and the members of the exhibitions committee.

Ontario Association of Architects' New Act: The secretary reported that he had been advised by the Ontario Association of Architects that their membership under the new Act totalled 449, an increase over the previous membership of 259. He further reported that he had advised the new members of the O.A.A. of their membership in the R.A.I.C. and had sent each of them a complete file of the documents of the Institute.

Duty on Plans: The secretary informed the meeting that upon enquiry at the Toronto customs office he had learned that the appraisers were still computing the duty on plans on the old basis of 221/2% of 2% of the estimated cost of the building, instead of 221/2% of 3%, as provided for in appraiser's bulletin No. 3966 dated November 3rd, 1932; also that they had completely overlooked paragraph No. 8 of this bulletin which requires importers to file promptly after the completion of the construction of the building, an affidavit as to the actual cost thereof. He further reported that he had drawn this to the attention of the Commissioner of Customs at Ottawa and as a result all collectors of national revenue had been instructed to make a specific report of the appraisal of plans on which duty had not been paid in accordance with the provisions of bulletin No. 3966, and that he had also been assured by the Commissioner of Customs that the collectors of national revenue would have the provisions of this bulletin refreshed in their memories in order that future appraisals would be made in conformity therewith.

Standard Dimensions for Building Bricks: A report from Mr. Herbert E. Moore, chairman of the sub-panel on brick sizes was submitted to the meeting in which he advised the Institute that the committee appointed in 1932 by the Canadian Engineering Standards Association to see if it was possible to standardize the dimensions for building brick, had now completed its work and that the size finally adopted was 83/8" x 23/8" x 4". Mr. Moore, in his report, recommended that such action be taken by the Institute toward educational publicity as would ensure full circulation of the standard document recently issued by the C.E.S.A., and enlist the co-operation of the members of the Institute in its enforcement.

Following the reading of the report, it was decided to extend the thanks of the Institute to Mr. Herbert E. Moore for the time and effort he had devoted to the work of this committee as chairman of the sub-panel on brick sizes and further to ask him to prepare an article for The Journal outlining the reasons for the size recommended and advocating its adoption by the members.

Standard Forms of Contract: A letter under date of August 29th, was read from the Canadian Construction Association, drawing the attention of the Institute to the fact that a number of architects were still using contract forms which were now obsolete instead of the standard forms of contract as approved by the R.A.I.C. and C.C.A. The secretary informed the meeting that a note drawing this to the attention of the members had been published in the September issue of The Journal.

Inter-Provincial Relationships with Regard to Reciprocal Registration: An analysis of the requirements of the various provincial associations of architects as to the permitting of non-resident architects to practice was presented to the meeting and the secretary was instructed to send copies of this analysis to the component societies for their approval before publishing it in The Journal for the information of the members.

Comparative Schedule of Minimum Fees: The secretary informed the meeting that copies of the comparative schedule of minimum fees had been submitted to the component societies of the Institute for their approval with a suggestion that it be published in The Journal. As an objection had been raised by the Ontario Association of Architects, it was decided not to publish the comparative schedule of fees in The Journal, but that copies should be sent to the component societies and members of the council for reference purposes.

Dominion Housing Act: A letter was read from the National Construction Council under date of August 20th with which was enclosed a copy of a letter from the Deputy Minister of Finance with reference to the operation of the housing act. The secretary advised the meeting that he had also received an explanation of the Act from the Minister of Finance, together with a list of the lending institutions eligible to make loans under the Act. He also informed the meeting that the National Construction Council was making an effort to stimulate the demand for loans in order that the fullest benefits would be derived from the legislation.

It was pointed out that in making loans to applicants, the Sun Life Company were stipulating that plans and specifications for the proposed project must be prepared by an architect. After some discussion it was decided to request the president and the members of the housing committee to draft a letter to be sent to the approved lending institutions recommending that they make a similar condition in making loans to applicants.

Scale of Architects' Fees for Housing Projects: A report was submitted to the meeting from Mr. Ludger Venne, chairman of the R.A.I.C. housing committee, which stated that it was the unanimous opinion of the members of his committee that it would be inadvisable to prepare a scale of architects' fees for housing projects that would have as its object the modification of existing fees, as the work contemplated under the Dominion Housing Act would vary so much in character. It was the opinion of the committee, Mr. Venne reported, that architects engaged on housing projects should render complete service including supervision, and that they should be "induced to adopt the principle that repetition of plans should be the exception rather than the rule, thus making a real architectural contribution by variety in both plan and exterior design instead of condoning, encouraging and adopt-

ing the speculative builder's methods of reducing the architect's remuneration by means of the stock-plan, stock-design idea." In accepting the report of the housing committee, it was the feeling of the meeting that a précis of the report should be published in The Journal for the information of the members.

Research on Building Materials: The secretary informed the meeting that a reply had been received from the United States Bureau of Standards outlining in detail the method adopted in reporting the results of tests carried out by them, which indicated that while the results were made public, the products and materials tested were designated by code numbers and not by the name of the product.

The secretary also reported that the National Construction Council had offered to co-operate with the National Research Council in carrying out tests on building materials. It was therefore decided to take no further action in this matter pending a report being received of the negotiations between these two bodies.

R.I.B.A. Matters: Mr. Philip J. Turner informed the executive that he had attended the Allied Societies Conference held in Glasgow in June, also a meeting of the R.I.B.A. council in London on June 24th. He had also been the guest of honour at a dinner tendered by the R.I.B.A. on June 24th at which he presented, on behalf of the R.A.I.C., the Honorary Fellowship certificate of the Institute to Sir Raymond Unwin.

Mr. Turner also reported that he had discussed with Sir Ian MacAlister a number of matters he had been requested to take up with the R.I.B.A., and that an understanding had

been reached whereby all correspondence from the R.I.B.A. would in future be directed to the secretary of the R.A.I.C. for communication to the provincial associations in order to avoid duplication of correspondence; also that the arrangements for the admission of candidates in Canada to the R.I.B.A. prize competitions would in future be placed in the hands of the recognized schools of architecture instead of the Institute.

The meeting expressed its sincere thanks to Mr. Turner for the service he had rendered in behalf of the R.A.I.C. while in England.

Miscellaneous: A summary of a court action taken by an engineer in the province of Nova Scotia against the Nova Scotia Association of Architects seeking to compel the Association to grant him registration, was reported to the meeting and it was decided to refer the summary to the editorial board with a request that a synopsis of the action be published in The Journal as of possible interest to members in other provinces.

The meeting was informed that a complimentary copy of the Manual of Accounting for Architects recently published by the A.I.A. had been received by the Institute. The secretary was instructed to request Mr. R. H. Macdonald to review this book in The Journal for the benefit of the members.

Date and Place of Next Meeting: It was decided to hold the next meeting of the executive committee in Montreal during the month of November, the exact date to be left to the president.

Adjournment: The meeting adjourned at 5.45 p.m.

#### ACTIVITIES OF PROVINCIAL ASSOCIATIONS

#### ONTARIO ASSOCIATION OF ARCHITECTS

Since the coming into force of the Architects' Act 1935, a number of meetings have been held separately by the council and the registration board of the Association.

Only eight members allowed their membership to lapse on the first of July this year, which is considerably less than in any previous year. This leaves the membership of the Association at 449, with several applications for membership pending.

The registration board has set November 6th next as the date on which all partial examinations which should have been taken in April must be taken. Those not presenting themselves on that date will be compelled to take the complete examinations in the course set out by the board.

The council has appointed a publicity committee consisting of Professor E. R. Arthur, chairman, G. Roper Gouinlock and R. Schofield Morris, with B. Evan Parry as director of publicity. The scope of this committee will include interrelations with the R.A.I.C. editorial board, radio broadcasting, articles for magazines and syndicate press, lectures with or without slides, publicity of current events concerning architecture and interviews with prominent visiting architects.

#### PROVINCE OF QUEBEC ASSOCIATION OF ARCHITECTS

At recent meetings of the council of the P.Q.A.A. attention has been given to the possibility of obtaining special premium rates to members of the P.Q.A.A. for architects' liability insurance, to cover the architect's responsibility established

by law for the five-year period subsequent to the erection of buildings, within the province of Quebec.

As a result of its investigations the council has received from a reputable firm of insurance brokers in Montreal a proposal covering architects' indemnity insurance, which provides for premium reductions off basic charges, provided a group of not less than twenty-five architects within the province insures under the proposed scheme. The conditions under which indemnity policies would be issued and the rates that would be charged for such insurance have been sent to the members with a request that they notify the secretary of the Association if they are interested in the proposal.

Examinations for the admission to the study of architecture or registration in the province of Quebec will take place in the rooms of the P.Q.A.A. on November 18th, 1935 and the following days, at 9 o'clock a.m. each day.

Candidates for admission as student-associates are required to make application to the honorary secretary at least one month before the date of examination. The application to be accompanied by the matriculation fee of ten dollars and the candidate's "testimonies of study."

Candidates for admission to membership in the Association are required to make application to the honorary secretary at least one month before the date of the registration examination. The application to be accompanied by the registration fee of twenty-five dollars, and the candidate's "testimonies of study," together with the affidavit of the principal or principals with whom the candidate has served his indenture, that he has satisfactorily served the prescribed period of indenture required under the by-laws.

#### NOTES

Our congratulations to Wilfrid Lacroix, F.R.A.I.C., of Quebec City, who was elected a member of parliament representing the constituency of Quebec-Montmorency in the recent federal elections.

James Hawker, M.R.A.I.C., of Winnipeg, has left for an extended visit to England. Mr. Hawker expects to return to Winnipeg early next spring.

Herbert E. Moore, F.R.A.I.C., of Toronto, announces the continuation of his architectural practice at 375 Bloor Street East, Toronto.

The fifth R.A.I.C. architectural exhibition will be held in the galleries of the Art Association of Montreal in conjunction with the fifty-sixth annual exhibition of the Royal Canadian Academy of Arts which will open on November 21st, 1935.

Herbert E. Murton, M.R.A.I.C., announces the removal of his office from the Pigott Building to 216 Medical Arts Building, Hamilton.

Hugh A. I. Valentine, M.R.A.I.C., has been appointed to the staff of the Department of Architecture, McGill University to temporarily fill the position occupied by Mr. Frank P. Chambers who has been granted leave of absence until October, 1936. Mr. Chambers will spend a year of study and research in Europe before returning to McGill University.

C. Reginald Tetley, M.R.A.I.C., of Montreal, left recently on a visit to the British Isles. Mr. Tetley expects to return to Montreal about the middle of November.

James H. Craig, M.R.A.I.C., of Toronto, addressed a meeting of the Montreal branch of the Engineering Institute of Canada on October 17th, on the subject of a national slum clearance and housing programme.

Morris M. Pulver, M.R.A.I.C., of Toronto, announces the removal of his office from 21 Dundas Square to 414 Bathurst

Raphael Boilard of Montreal, a former member of the R.A.I.C., passed away on October 13th, 1935 at the age of fifty-four years. He had practised in the United States for several years and returned to Montreal in 1925 where he continued his practice until his retirement last year.

An exhibit of the work of members of the province of Quebec Association of Architects has been arranged in connection with the National Produced-in-Canada Exhibition which will be held in the Sun Life Building, Montreal, from November 6th to 16th, 1935.

The R.I.B.A. London Architectural Medal, which is awarded annually to the architect who has designed a building of outstanding merit built during the three preceding years within a radius of eight miles from Charing Cross, has this year been awarded to Sir John Burnet, Tait and Lorne, for the Royal Masonic Hospital, London.

Le Corbusier, famous exponent of the modern movement in architecture, will arrive in New York this month to give a series of lectures in the United States under the sponsorship of the Museum of Modern Art, New York City. Le Corbusier will lecture in French, but he will be accompanied by Robert Jacobs, an American architect, who will translate his lectures from the platform.

One of America's best known architects in the person of Harold Van Buren Magonigle, passed away recently at the age of sixty-seven. He was a draftsman of extraordinary skill, and during his many years of practice he had to his credit a number of important buildings, including the Peace Memorial, Kansas City; the McKinley Monument, Canton, Ohio; the United States Embassy and Consulate in Tokyo; the Arsenal Technical School in Indianapolis; the Soldiers' Memorial in Naugatuck, Conn.; and many others. Mr. Magonigle was a critic of "modern" architecture and for the past few years has made his architectural views known to the profession through the current architectural magazines.

A process by which limestone can be impregnated with colour tones and polished to a high degree has recently been perfected in Bloomington, Indiana. The colour impregnates the stone from ½" to ½" and the inventors claim that the colour does not fade, but will become stronger with time.

#### R.A.I.C. CONTRACT DOCUMENTS

Members of the Institute are advised that copies of the R.A.I.C. contract documents may be obtained from the secretary, 74 King Street East, Toronto, at the following prices:

Standard Form of Construction Tender. . 10 cents each, 60 cents per doz. Standard Form of Agreement Between

"Stipulated Sum" Form of Contract.... 15 cents each, \$1.50 per doz.

"Cost Plus" Form of Contract....... 15 cents each, \$1.50 per doz.

Money orders or cheques payable at par in Toronto must accompany all orders for contract forms.

#### A HISTORY OF ENGLISH BRICKWORK

By Nathaniel Lloyd, O.B.E., F.S.A., F.R.I.B.A.

With an Introduction by Sir Edwin Lutyens, R.A.
New and Abridged Edition, with Preface, by Leslie Mansfield.

Containing examples and notes of the architectural use and manipulation of brick from Mediaeval times to the end of the Georgian Period.

Nathaniel Lloyd's original volume on the History of English Brickwork, published several years ago, provided the architectural profession with an authentic record of English Brickwork. In this volume an attempt has been made to condense the original volume, but deletion has been made with great care, and those illustrations now included have been selected to represent as widely as possible that vast number of buildings and types of building which contribute to the history of the subject. The general arrangement of the book remains the same, and particular reference may be made to the chronological arrangement of the illustrations and their grouping as to type.

Price \$4.25

All charges prepaid.

#### ARCHITECTURAL PUBLICATIONS LIMITED

74 KING STREET EAST

TORONTO, ONT.

Cheques payable to Architectural Publications Limited

#### BYZANTINE ARCHITECTURE AND DECORATION

By J. Arnott Hamilton, M.A., B.D., PH.D.

In this volume Dr. Hamilton has produced a practical and comprehensive manual that deals with Byzantine architecture and decoration from its earliest origins and throughout its vast sphere of influence. It is the outcome of many years of study and first-hand examination of Byzantine monuments, and succeeds in a remarkable manner in crystalizing the immense volume of scholarship to date into an easy, readable narrative, which embraces the subject in its constructional as well as its aesthetic aspects. It is very fully illustrated from photographs, many of them entirely new and unpublished, with plans, drawn details and reconstructions in the text.

Price \$5.00 - All charges prepaid.

#### ARCHITECTURAL PUBLICATIONS LIMITED

74 KING STREET EAST - TORONTO, ONT.

Cheques payable to Architectural Publications Limited

#### THE BRITISH HERITAGE SERIES

Price \$2.25 per volume.

#### THE OLD INNS OF ENGLAND

By A. E. RICHARDSON, F.S.A., F.R.I.B.A.

With a Foreword by Sir Edwin Lutyens, R.A.

Containing 128 pages of text and 132 photographic illustrations of old English inns in town and country, from the dignified county hotel to the thatched wayside alehouse, embracing some five centuries of English vernacular architecture. This book has a special colour frontispiece by Randolph Schwabe, two further colour plates, and a map, coloured wrapper, and 25 pen drawings by Brian Cook.

#### THE PARISH CHURCHES OF ENGLAND

By J. CHARLES COX, LL.D., F.S.A.

Edited, with three additional chapters, by Charles Bradley Ford, With a Foreword by the Very Rev. W. R. Inge, K.C.V.O., D.D.

Containing 128 pages of text and 148 photographic illustrations of exterior views, interiors, features, fittings, etc.; with line drawings and sketches in the text, a colour frontispiece after Hugh O'Neill (1784-1824) and a coloured wrapper by Brian Cook.

#### ENGLISH VILLAGES AND HAMLETS

BY HUMPHREY PAKINGTON

With a Foreword by E. V. Knox (Evoë)

Containing 128 pages of text, and 126 photographic views of villages in every region of England; with 4 colour plates and 25 pen drawings by Sydney R. Jones, and a coloured wrapper by Brian Cook.

#### THE FACE OF SCOTLAND

By Harry Batsford and Charles Fry With a Foreword by John Buchan

Containing 128 pages of text and 115 photographic illustrations of the scenery of Scotland, its mountains, lochs, glens, coast, islands, moors, etc.; with old buildings in village, town, and city; castles, churches, etc. This book has a coloured frontispiece from a water colour by W. Russell Flint, R.A., and decorative coloured wrapper, 4 maps and 21 drawings in the text by Brian Cook.

#### THE CATHEDRALS OF ENGLAND

By Harry Batsford and Charles Fry With a Foreword by Hugh Walpole

Containing 128 pages of text, and 133 photographic illustrations of the cathedrals, without and within; general views, details, craftsmanship, monuments and chantries, screens, carving, windows, etc. This book has a coloured frontispiece from an original water colour by F. Mackenzie, and a coloured wrapper, 32 drawings, and decorative wrapper by Brian Cook.

Price \$2.25 per volume

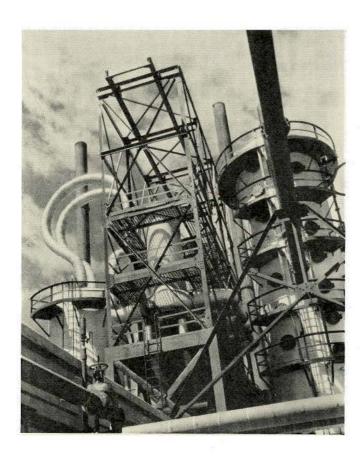
All charges prepaid.

#### ARCHITECTURAL PUBLICATIONS LIMITED

74 KING STREET EAST

TORONTO, ONT.

Cheques payable to Architectural Publications Limited



HE ROMANCE
OF INDUSTRY
can be best illustrated
by good photographs—
ASN photographs.
For photographs convince. They tell a story
effectively and as no
other medium can.

Consult us to-day.

## ASSOCIATED SCREEN NEWS

LIMITED

5271 WESTERN AVE., MONTREAL

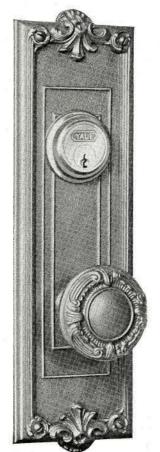
TIVOLI THEATRE BLDG. TORONTO EMPRESS HOTEL VICTORIA

GENERAL BROCK HOTEL, NIAGARA FALLS

#### TRADE YALE MARK

the name to bear in mind in selecting

## LOCKS and BUILDERS' HARDWARE



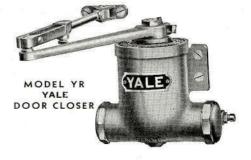
RIBERAC DESIGN
Cast Bronze, Brass and Iron
one of many beautiful
YALE patterns.

YALE is your assurance of finest quality and maximum security.

YALE Locks and Builders' Hardware are made in Canada by Canadians and many of the Dominion's finest buildings are YALE-equipped. The extensive range of YALE Hardware designs enables you to meet the demands of any architectural style.

#### YALE DOOR CLOSERS

In planning any building, include the quiet, comfort and convenience of YALE-controlled doors. YALE Door Closers, made in models and sizes for every requirement, are distinguished for their efficiency and long life.



#### THE YALE & TOWNE MFG. CO.

Canadian Division-ST. CATHARINES, ONT.



Sproatt and Rolph 1162 Bay St., Toronto PLUMBERS Bennett and Wright 72 Queen St. E., Toronto

ARCHITECTS

BUILDING CONTRACTORS
Anglin-Norcross Ontario
Limited
57 Bloor St. W., Toronto

Sproatt and Rolph, architects for the new Hydro-Electric Power Commission Building on University at Gerrard Street, Toronto, specified Streamline Fittings and Copper Pipe for both hot and cold water lines.

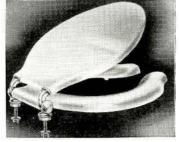
Never, as long as the building stands, will the piping need attention because of corrosion, or clogging due to rust. Should alterations or additions be necessary in the future, Streamline equipment will save many times its moderate cost because of the ease with which tees, elbows, etc. can be added to the lines. The Canada Wire and Cable Company, Limited, Toronto, requests the opportunity of giving you the whole story of Streamline patented fittings. Write for complete details.





## Seats to fit all types of bowls

Select Rubwood Toilet Seats for use in Hotels, Private Homes and Public Buildings of all kinds. Strength is their outstanding characteristic. The core or foundation is built up of alternate layers of plywood with grains crossed, bonded together inseparably by rubber under extreme heat and pressure. A heavy rubber cover is then vulcanized onto the core, resulting in a moisture-proof, one-piece unit capable of withstanding strain far beyond that to which a toilet seat is ever subjected.





Made in Canada

VICEROY MANUFACTURING Co., Limited, West Toronto Branches: Montreal—Winnipeg—Vancouver

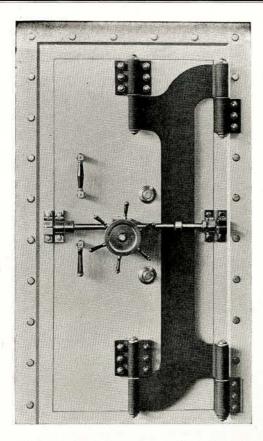
## ALUMINIUM and ALLOYS

Because of its lightness, resistance to tarnish or corrosion, ease of handling and other properties, Aluminium is an ideal material for door and window frames, spandrels, railings, partitions, lighting fixtures, ventilating grilles, etc. The alloys of Aluminium also have many applications to modern building. We carry in stock a large variety of structural shapes, also Aluminium and its alloys in ingot form for castings. Information as to sections, dimensions, weights, etc., gladly supplied on request.



#### The BRITISH ALUMINIUM CO., Limited

380 Adelaide St. West - - - Toronto 620 Cathcart Street - - - - Montreal



STEEL VAULTS and DOORS

#### SPECIFIED VAULT DOORS

When you specify vault doors, bear in mind that the vault can be no stronger than its door under conditions of fire, building collapse, or other attack. A cheap, flimsy door will endanger the vault contents and your reputation as well as that of the builder.

In specifying "TAYLOR" you assure the quality provides the necessary protection. Let us furnish you details of regular fireproof vault doors, or the most massive bank vault type.

### J.&J.TAYLOR LIMITED TORONTO SAFE WORKS

145 FRONT STREET EAST, TORONTO
MONTREAL - WINNIPEG - VANCOUVER

SAFES

JAIL CELLS

A NEW BOOK

#### THE MODERN HOUSE

By F. R. S. Yorke, A.R.I.B.A.

The modern architect does not allow a preconceived idea of the appearance of the facade to interfere with the efficiency of the plan. New materials are at his disposal and he employs new methods of construction. This book outlines the requirements to be met in the new type of home, and discusses at length its several parts—plan, wall, window and roof. It is illustrated by about 500 photographs, plans and constructional details of houses by architects in Europe and America.

Price \$6.00

All charges prepaid.

ARCHITECTURAL PUBLICATIONS LIMITED 74 KING STREET EAST - TORONTO, ONT.

Cheques payable to Architectural Publications Limited

A BOOK FOR EVERY ARCHITECT

#### ARCHITECTURAL GRAPHIC STANDARDS

By Charles G. Ramsay and Harold R. Sleeper

This book will prove invaluable to architects and draughtsmen because of its practicality and comprehensiveness. It contains 213 plates of details which give in graphic form a great deal of information regarding types of construction and dimensions of standard equipment used in different classes of buildings.

The variety of the subjects covered include such details as floor construction, roof construction, various types of framing, doors and windows, fire-places, chimneys, etc., also a great deal of useful information giving sizes of tennis courts, bowling alleys, hand ball courts, kitchen equipment, swimming pools, furniture, bath room accessories, etc.

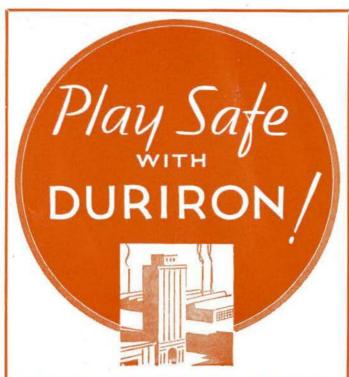
The book is indexed so that all information can be found easily, and it is sure to find almost daily use in every architect's office. It contains 233 pages, and is 91/4"x 113/4" in size.

Price \$6.50

All charges prepaid.

ARCHITECTURAL PUBLICATIONS LIMITED 74 KING STREET EAST - TORONTO, ONT.

Cheques payable to Architectural Publications Limited



## FOR EVERY TYPE OF STRUCTURE

- Acids are so commonly used today in all manufacturing processes that it pays to play safe and install Duriron Acid-proof Drain Pipe in all types of structures, and especially in the following:
- Hospitals and Institutions
- High School and College Laboratories
- Laboratories of Industrial Buildings
- Kitchens of Hotels and Restaurants
- Photographic Studios and Engraving Plants
- Battery Stations and Emergency Lighting Rooms
- Soda Fountains, where carbonated water is used
- Cinder Fills, where corrosion is outside the pipe
- The cost of Duriron Acid-proof Drain Pipe and fittings is small indeed compared to banishing forever the fear of acid-destroyed pipe, leaks, repairs and expensive replacements.
- Rehabilitation of plants which have been shut down; remodeling commercial buildings; have quickened demands for Duriron. Our representative in your territory will furnish helpful suggestions and prices, or write us.

SHAWINIGAN CHEMICALS LIMITED

Stainless Steel and Alloys Division
MONTREAL

ST. CATHARINES

WINNIPEG

VANCOUVER

## DURIRON ACID PROOF DRAIN PIPE

The most economical method of fire-proofing—

Metal behind the Plaster

Steel mesh reinforcement—METAL LATH—is as necessary for smaller buildings, including homes, as it is for the towering skyscraper. Pedlar's Metal Lath is designed to reinforce against plaster cracks and lath marks and to hold back fire up to one hour. Give our lath a tryout on your next job and you will find that it saves time in erection and yardage in plaster and you get better results. We make the following types: "Plaster Saving" Lath, with the small mesh; "Superior" and "Hi-Lo" Rib Laths, also Truss Fabric for exterior stucco construction. Our Corner Beads are used in conjunction with all these products.

Write for samples and prices.

#### THE PEDLAR PEOPLE LIMITED

Established 1861

Head Office - Oshawa, Ont.

Factories — Oshawa Montreal Winnipeg Vancouver
Branches — Montreal Toronto Ottowa Winnipeg
Calgary Vancouver



Tested and proved on thousands of jobs



JOHNSON DUAL THERMOSTAT

## The "Brain" of the Heating System

THE BOILER is the "heart" of the heating plant. Piping and radiators are the "circulatory system." But the automatic temperature control equipment is the "brain" which commands the entire installation . . . Particularly true when Johnson Dual Thermostats are used! One temperature for "day" or occupancy conditions. A reduced temperature for "night control" or for unoccupied spaces, an economy level from which it is neither difficult nor expensive to re-heat. In school buildings, for instance, certain rooms or groups of rooms may be used during the evening hours, while the rest of the building is carried at the reduced temperature. Separate steam mains are not required — Johnson thermostats are more than mechanical devices—Truly, "precise instruments."

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

Toronto

Montreal

Winnipeg

Calgary

Vancouver