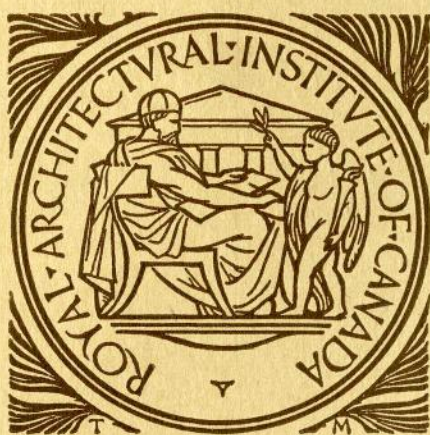


THE  
JOURNAL  
ROYAL ARCHITECTURAL  
INSTITUTE OF CANADA



JANUARY, 1930

VOL. VII. No. 1

TORONTO



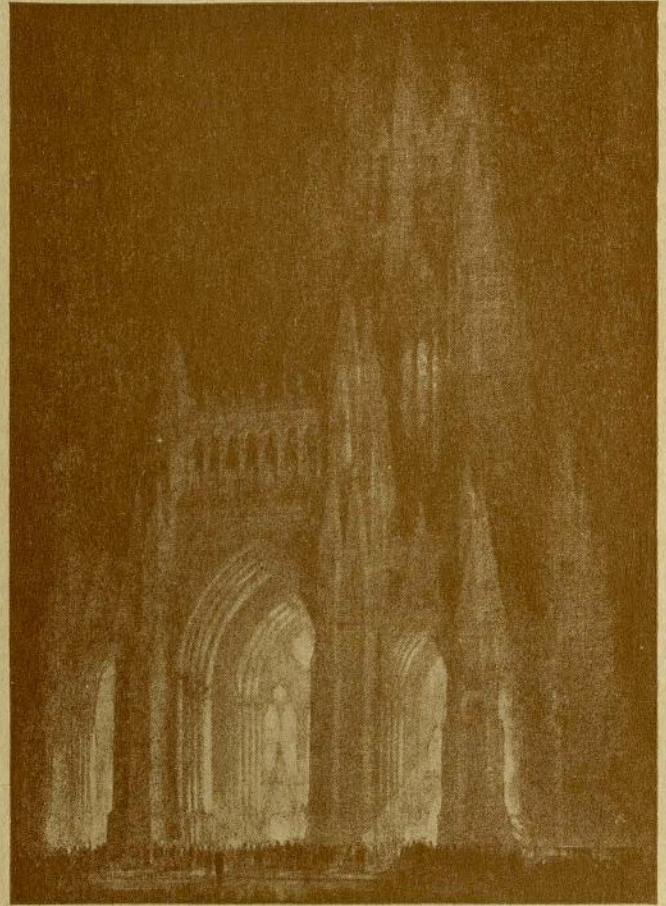


## STEEL

### BETTERS ANY BUILDING

STEEL is the strongest building material . . . the safest to work with . . . the most adaptable. Steel permits the greatest speed in construction, occupies less space and allows larger interiors. Steel can be erected any time, anywhere, in any weather with expedition. Steel is fool-proof—it will stand more abuse than any other material. The properties of steel are known *before* it goes into construction—and those properties are kept consistent by constant inspection, test and analysis at the mill.

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stronger, safer, more adaptable building medium for any type of modern building or bridge . . . large or small. Before you build—no matter what the nature of the structure—consider steel.

A Technical Service Bureau is at the disposal of architects, engineers, owners and others who have need of any information which can be supplied through the American Institute of Steel Construction, Inc.

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The co-operative non-profit service organization of the structural steel industry of the United States and Canada. Correspondence is invited. 200 Madison Avenue, New York City. District offices in New York, Worcester, Philadelphia, Birmingham, Cleveland, Chicago, Milwaukee, St. Louis, Topeka, Dallas and San Francisco. The Institute publishes twelve booklets,

**STEEL**  
**INSURES STRENGTH**  
**AND SECURITY**

one on practically every type of steel structure, and provides also in one volume, "The Standard Specification for Structural Steel for Buildings," "The Standard Specification for Fireproofing Structural Steel Buildings," and "The Code of Standard Practice." Any or all of these may be had without charge, simply by addressing the Institute at any of its offices.



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THE stately home of the Sun Life Assurance Company of Canada is in every particular the very embodiment of magnificence. Every part is of the finest.

To the Otis-Fensom Elevator Company, with its record of leadership in vertical transportation, has been given the honor and the duty of providing that superlative elevator service which a building of this character rightfully demands.

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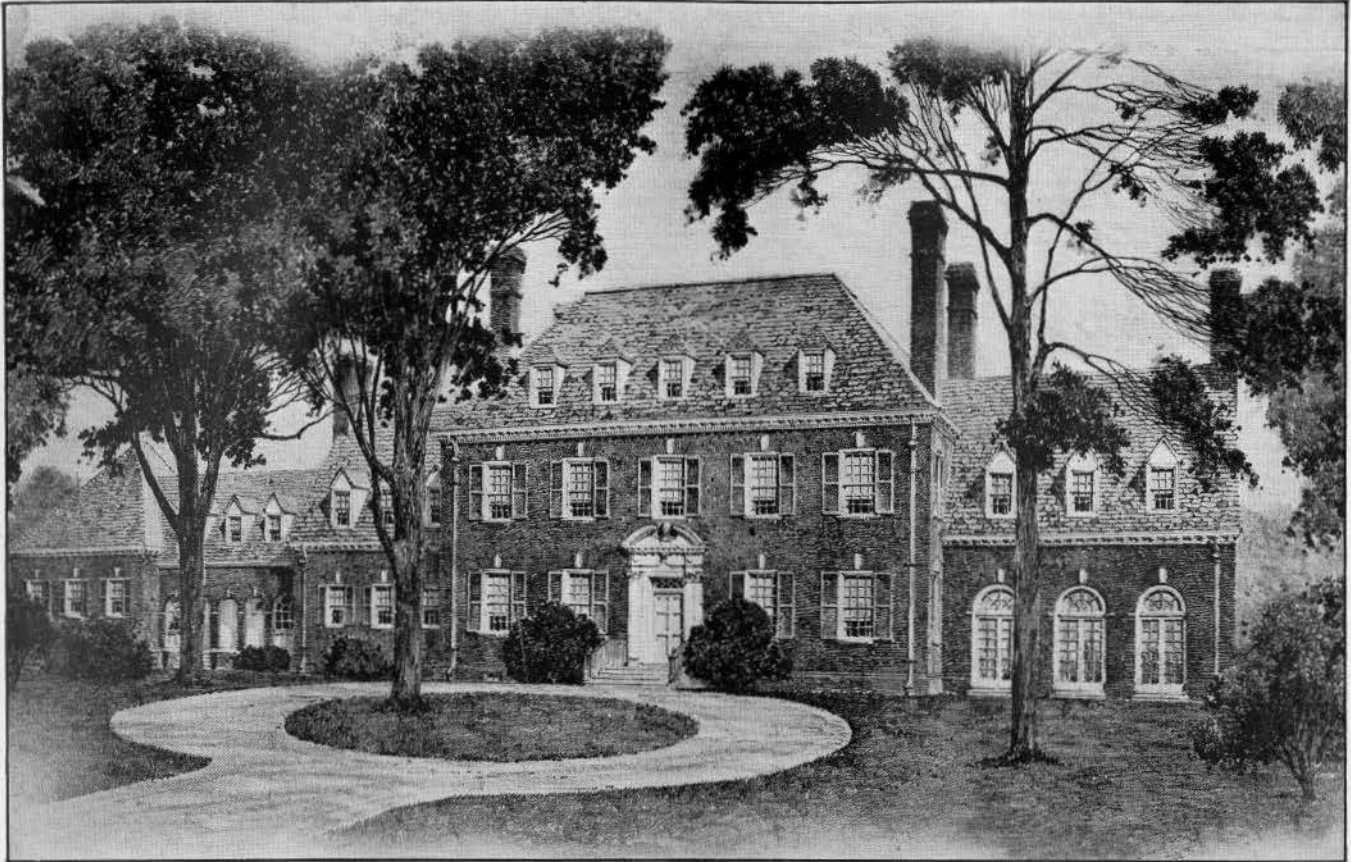
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The home of Mr. H. W. Ellerson, Richmond, Virginia, insulated with Armstrong's Corkboard. W. Duncan Lee, the architect, says after the first winter, "Insulation has been thoroughly satisfactory . . . will pay for itself many times."

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ONE-HALF-INCH is not enough insulation for your houses—adequate protection requires three times that thickness, even with corkboard.

"But," says your client, "what about the cost?"

That's like asking whether a two-story house costs more than a bungalow. You can buy many materials that cover more area per dollar than corkboard, if it is covering surface in which you are interested. But if you are buying insulation, you'll measure their resistance to heat, and you'll come to this conclusion: It costs less to get adequate insulation with Armstrong's Corkboard than with any other material.

By *adequate* insulation, we mean that amount of insulation which gives the greatest saving in heat, and the most comfortable home, *in proportion to the cost of insulation.*

Armstrong's Corkboard comes in thicknesses that do give adequate insulation. It is made for architects whose plans presuppose worthy building materials. To the homes these men create, Armstrong's Corkboard brings comfort and economy in the largest measure for each dollar of insulation cost.

*Detailed information and filing folders will be gladly sent upon request. Write to the Armstrong Cork & Insulation Company, Limited, McGill Building, Montreal; King St. West, Toronto; Confederation Life Building, Winnipeg, Man.*

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— *for the Walls and Roofs of Comfortable Homes* —



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*Made at Montreal.*

Fig 389



Always marked with the "Diamond"

# Jenkins Valves

SINCE 1864





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**GREETINGS**  
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\* \* \* **D**uring 1929, the first year in which ASHTONE was aggressively merchandised, this beautiful stone received a hearty welcome from architects, builders and prospective home owners. Because of this expression of confidence we look forward to a bigger 1930, and extend to the entire building profession, not only our wishes for a highly successful year, but also our solemn promise to co-operate to the fullest in the matter of production, sales assistance and delivery.

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# —LAMINATED—

*that's* why *only* Whale-Bone-ite..  
can defy the Slam-Bang Public

**L**AMINATED construction secures for Whale-bone-ite exactly what the I-beam cross-section secures for steel girders—immense strength combined with light weight.

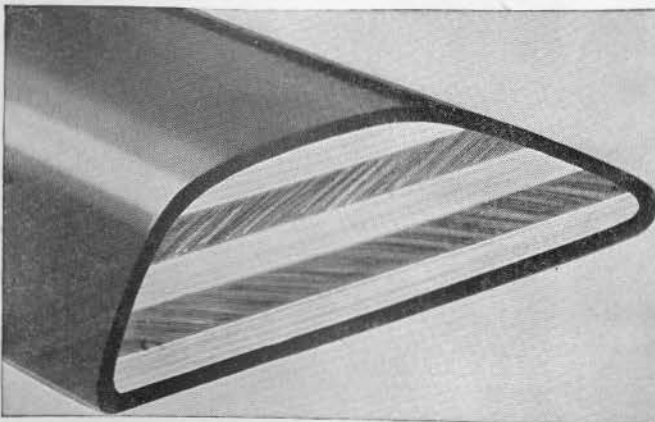
We and others have found it impossible to make a seat by any other method anywhere near as sanitary, as strong, or as light.

Fourteen years of on-the-job experience have failed to reveal a weakness. Now, more than a million Whale-bone-ite laminated seats stand the use and abuse of public toilets.

Those concerned with the design, construction and operation of buildings have found this experience safe to follow, so that today nearly all seats going into public toilets are of laminated construction.

### *Ends burden of replacement costs*

It is a well-known fact that public toilet seats receive constant, careless slam-bang abuse from the public. But the public cannot smash Whale-bone-ite. Its unbreakable laminated construction—guaranteed for the life of the building—immediately ends all replacement expense.



**N**OTE the Laminated Construction—a core of alternating-grain layers of hardwood—sealed and bonded to the whole by Whale-bone-ite. It is warp-proof and is guaranteed against warping, cracking, and splitting.

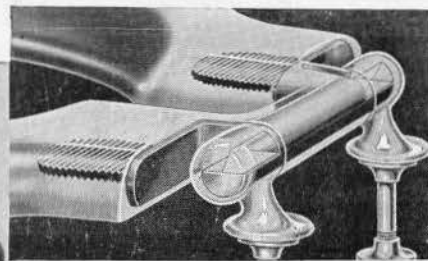
Its handsome polished Whale-bone-ite surface will last a life-time. It is easy to clean and non-inflammable.

Whale-bone-ite Seats are found quite generally in the guest bathrooms of fine hotels. Many new apartment houses are equipping all toilets with them.

*Send for free cross-section*

*—see its strength yourself*

Figures show that on the average ordinary seats have to be replaced about every three years. If you want to end this needless expense, just as it already has been ended in more than a million public toilets in modern and remodelled buildings, simply install Whale-bone-ite Seats as fast as other seats wear out. Not only will the replacement expense end, but the toilets will be cleaner as Whale-bone-ite is easier to keep clean. Without obligation send for a free Whale-bone-ite cross-section. Simply address The Brunswick-Balke-Collender Co. of Canada, Limited, 358 Bay Street, Toronto, Ontario.



**T**HE Whale-bone-ite steel hinge is moulded integral with the Seat forming an unbreakable unit. Covered with Whale-bone-ite, the hinge is as handsome as the Seat. It cannot tarnish. It is easy to clean.

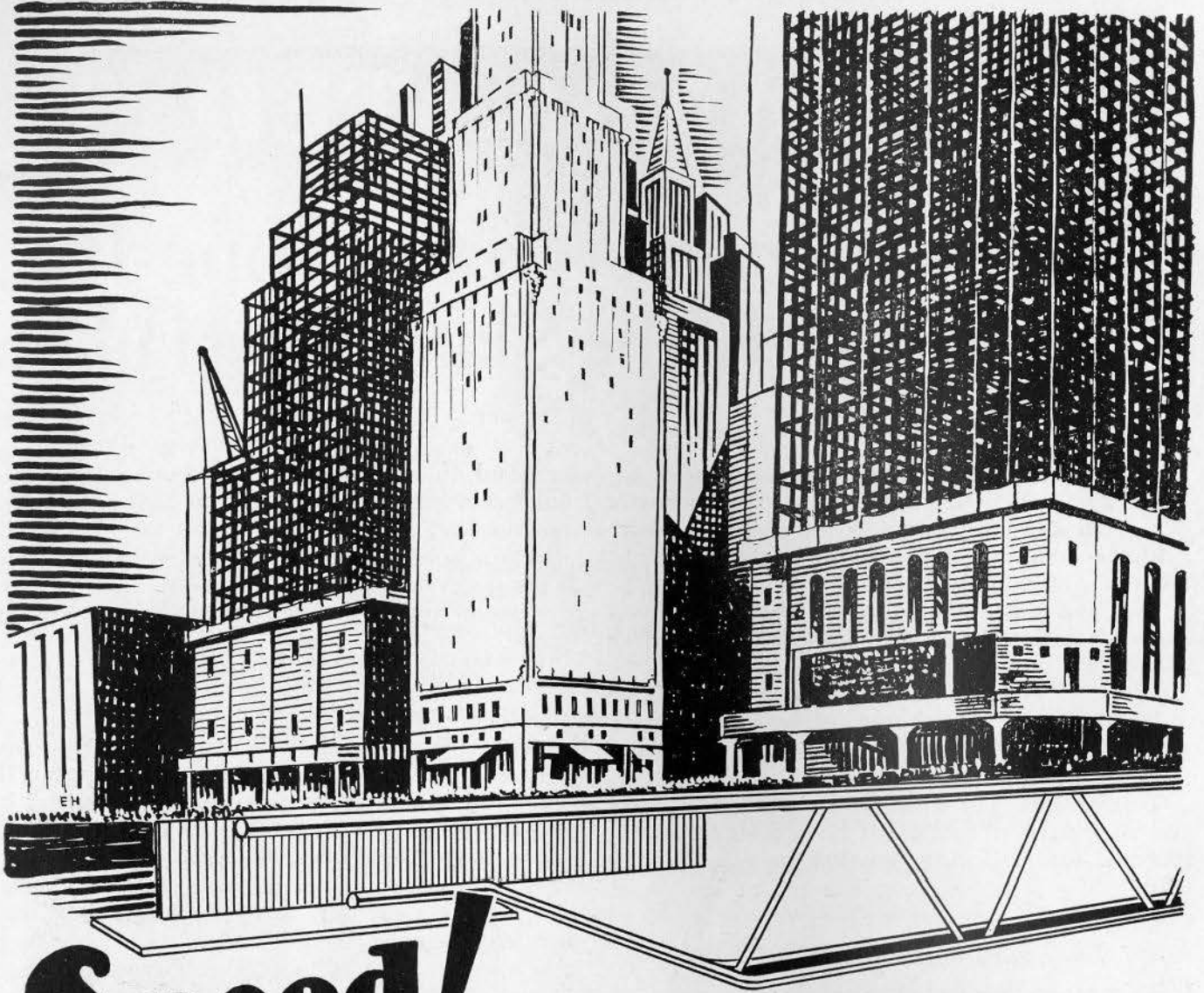
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**TOILET SEATS**  
MADE IN CANADA

The Brunswick-Balke-Collender Co.  
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# Speed! The Order of the Day!

**M**ASSILLON Bar Joists meet this constructional demand and couple strength, durability and economy with speed of erection.

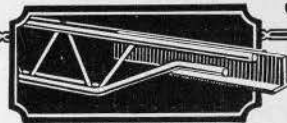
Standardized sizes, flexibility of span, lightness of weight and the fact that piping and conduits may be run in any direction without cutting, drilling

or suspending ceilings, makes Massillon Bar Joists—the pioneer of Canadian Steel Joist—the ideal type of modern fireproof floor construction.

Our engineering department is at your service—load tables, dimensional data and full information will gladly be sent you on request.

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PATENTED 1926  
**BAR JOISTS**

*Made in Canada*



*of Canadian Steel*

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It is the sheer strength of product and the alertness of personnel that has earned for the MacArthur Concrete Pile Corporation the approbation of architects and engineers from coast to coast.

Check your requirements against MacArthur qualifications given in column to the left.

Some engineers subjected MacArthur Piles to every conceivable test before using them:—others selected them initially for "tough" jobs and then later quite logically specified them for all pile work (17 repeat orders from Firestone Tire, for example).

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- ✓ SPEED . . . . . *record-making*

# MacARTHUR CONCRETE PILE CORPORATION

Canadian McArthur Concrete Pile Co., Limited  
New Birks Building • Montreal



*Why*  
**Unit Ventilators  
 are in the  
 Chanin Building**

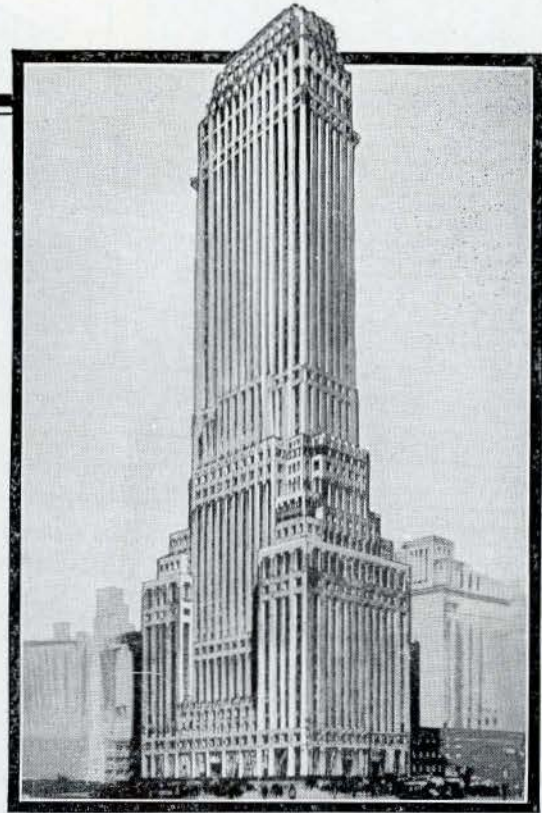
"Fifty-six stories of sunlight" is the slogan of the Chanin Building. It has windows, and air on all sides... but Unit Heater-Ventilators are in executive offices and board-rooms as high up as the forty-fifth floor! They are also used for special service in the lobby and sub-basements.

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Sturtevant Unit Heater-Ventilators require no duct work . . . They are compact, handsome in appearance and SILENT!

Sturtevant Unit Heater-Ventilators provide the



Chanin Building, New York. Architects: Sloan and Robertson. Consulting Engineers: Clark, McMullen and Riley.

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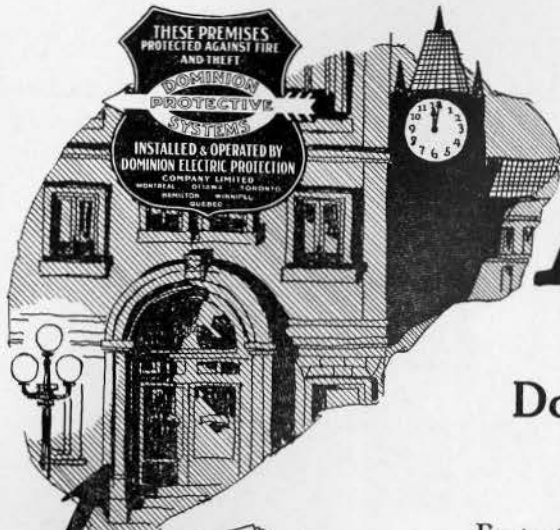
*Factory - Darwen, England*

Architect, G. A. Monette, Montreal  
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# - and All's Well

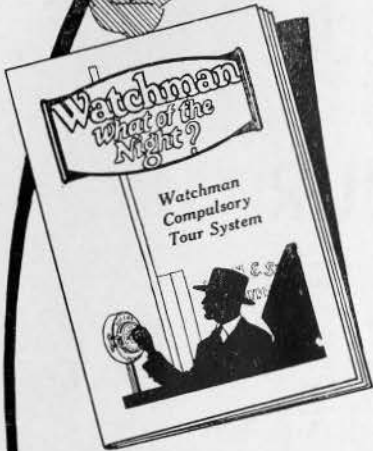
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Winter Construction with  
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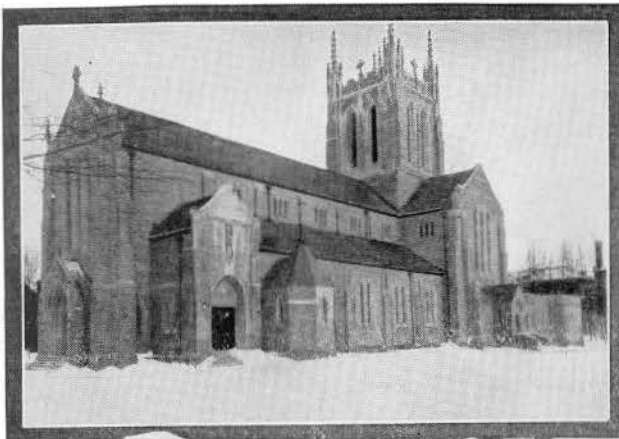


*Canada Permanent Mortgage Building, Toronto, F. Hilton Wilkes, Architect.  
Mathers & Haldenby, Associates. Sproatt & Rolph, Consulting Architects.  
Anglin-Norcross Company, Builders. Built of Indiana Limestone.*

**INDIANA LIMESTONE COMPANY**  
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*Architects: Viau & Venne.*  
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Floored with 13/16 Second Grade Birch.  
*Architects: Cameron & Ralston.*

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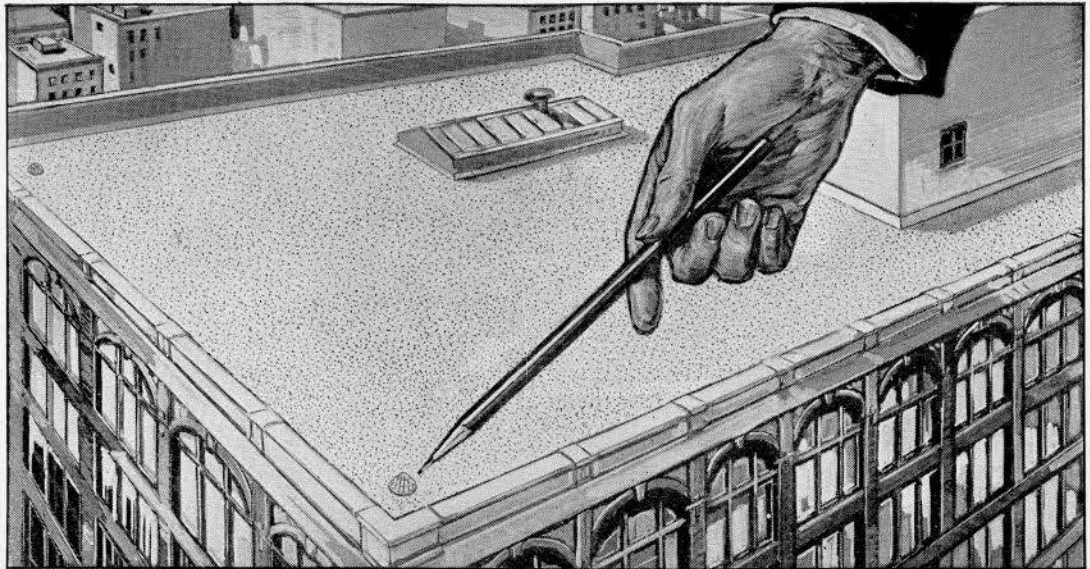
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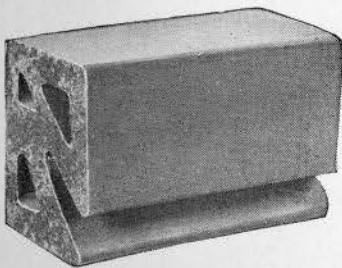


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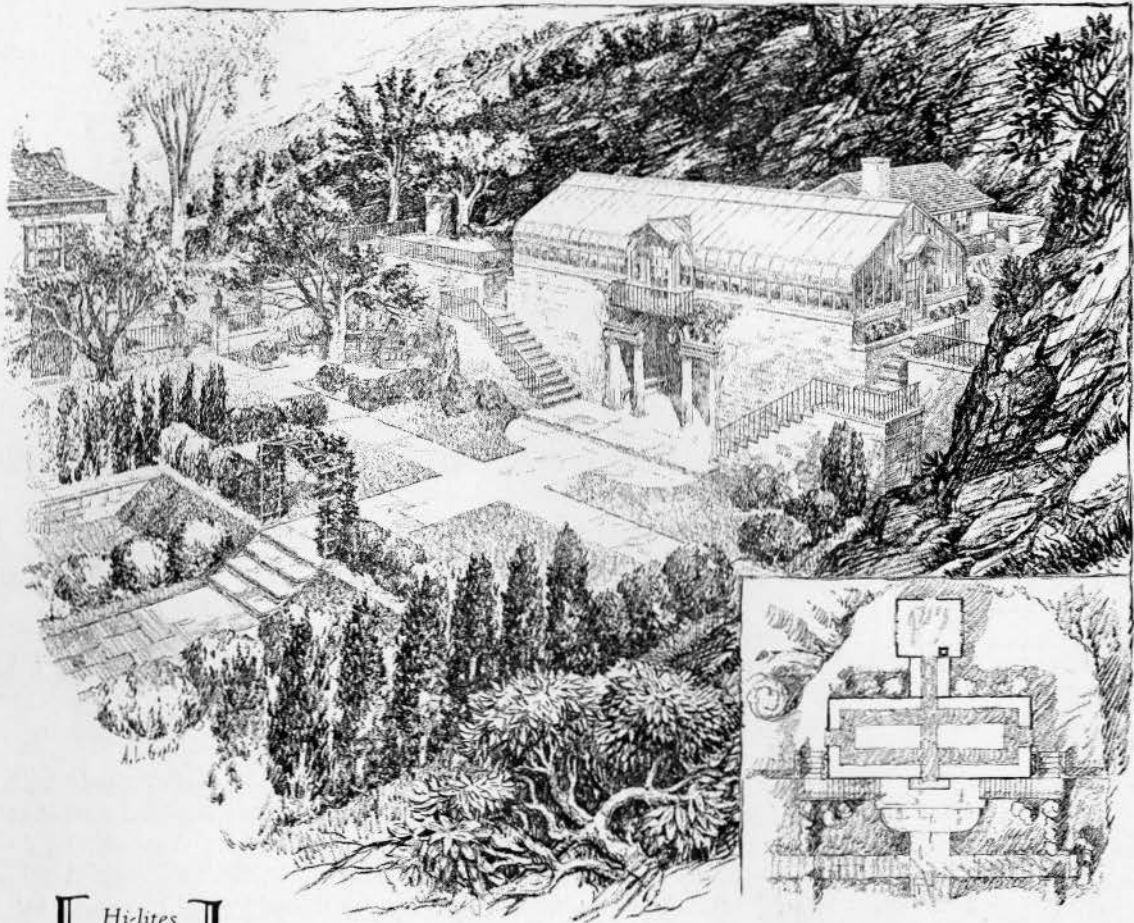
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# THE JOURNAL

## ROYAL ARCHITECTURAL INSTITUTE OF CANADA

Serial No. 53

TORONTO, JANUARY, 1930

Vol. VII. No. 1

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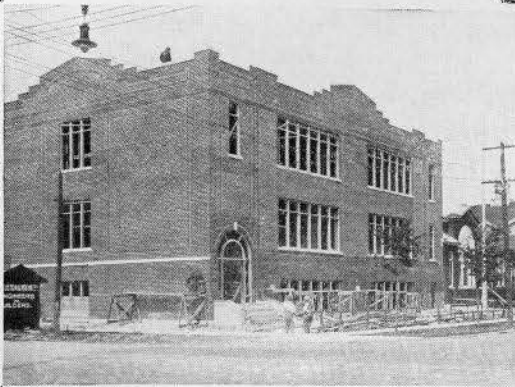
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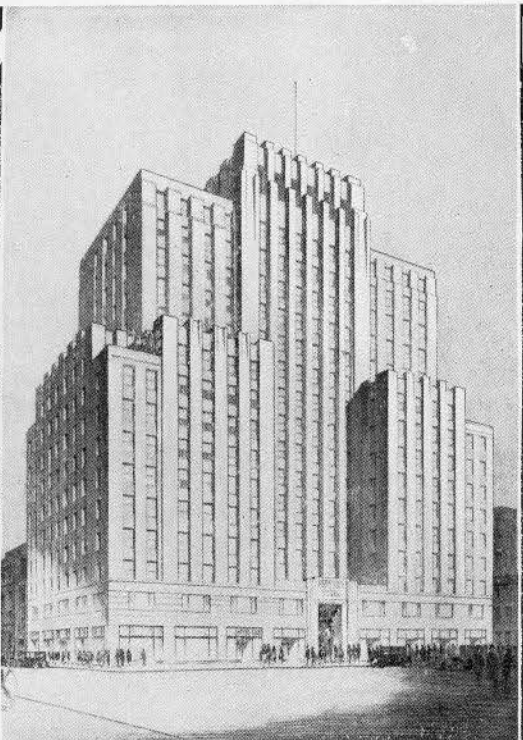
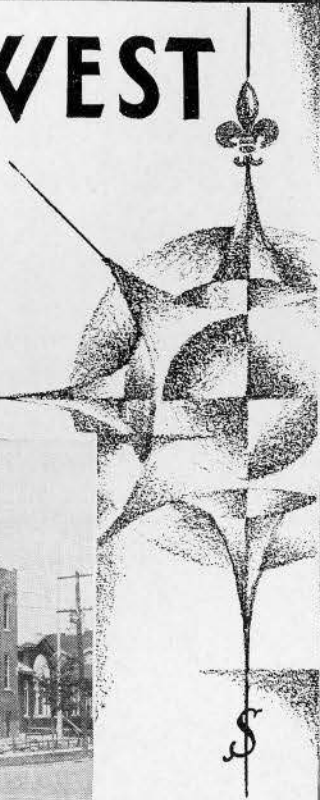


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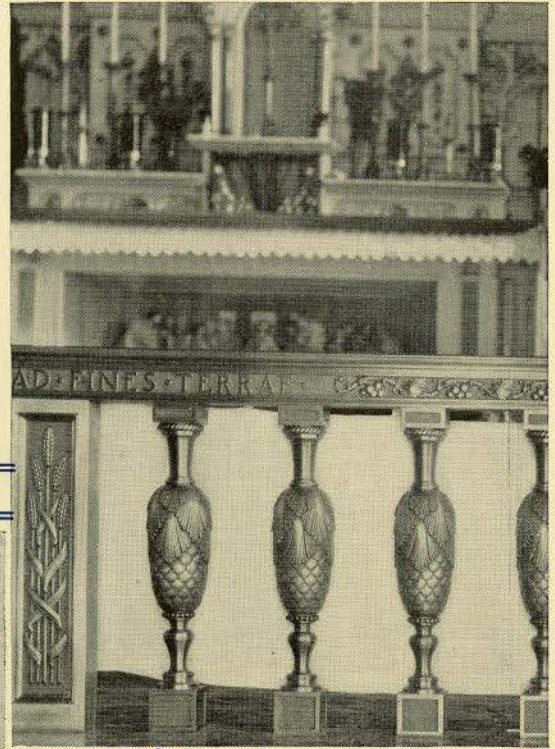
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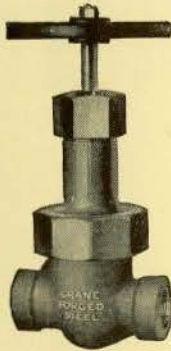


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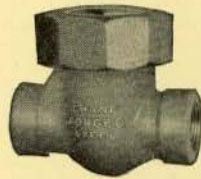


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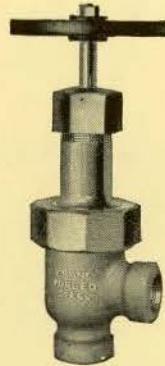
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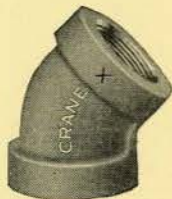
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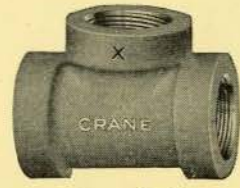
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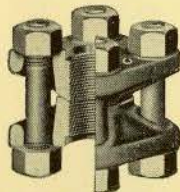
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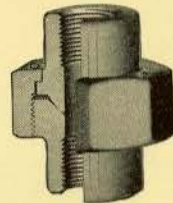
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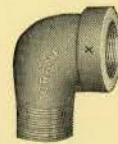
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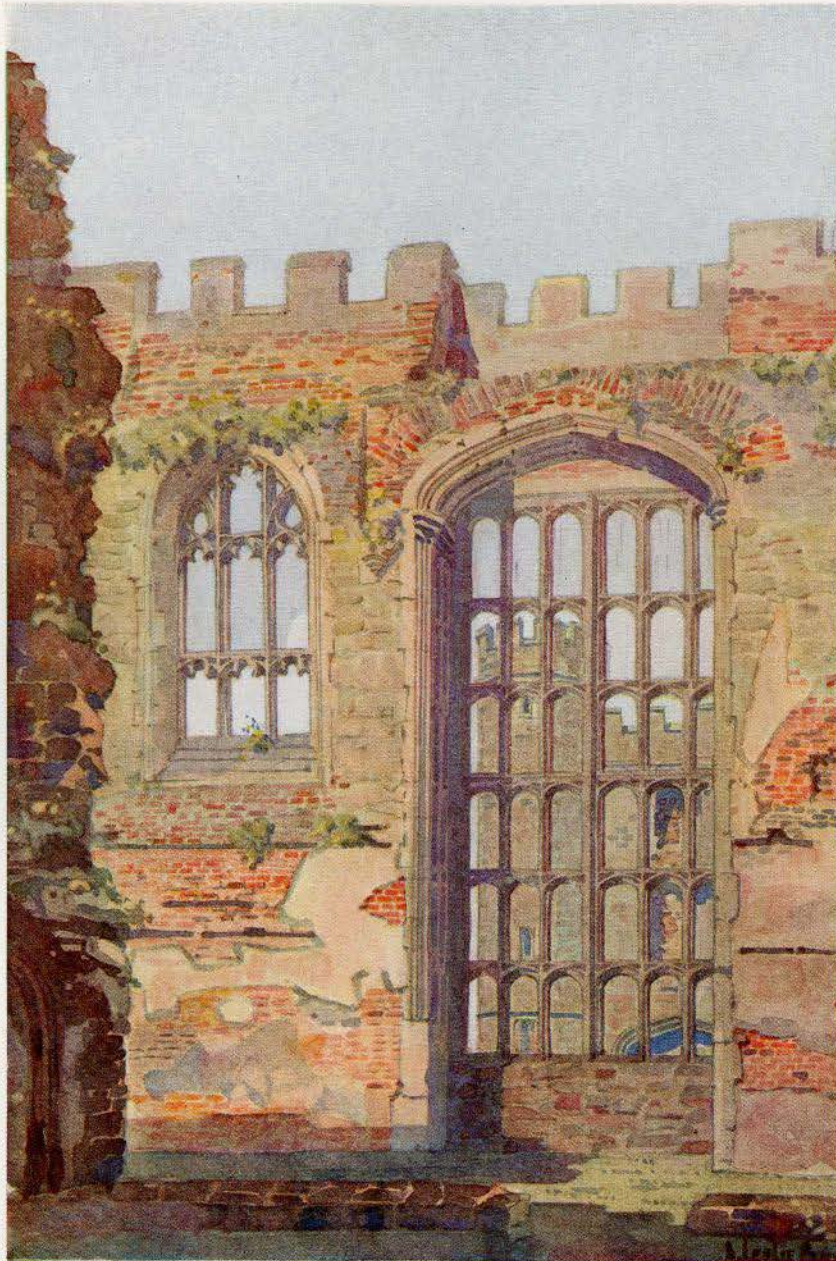
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**COWDRAY CASTLE, MIDHURST. ENGLAND**

*From a Water Colour Sketch*

*By A. LESLIE PERRY, B.Arch.*

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ROYAL ARCHITECTURAL INSTITUTE OF CANADA

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TORONTO, JANUARY, 1930

Vol. VII. No. 1

## President's Message

January 1st, 1930

IN expressing the hope that the coming year may be one of industry and happiness to each and every member of our profession, I am, I know, only saying what each and all of us feels with respect to his fellow members in our several organizations. The past year has been a notable one in the achievements of the architects in this country and in saying so I am thinking not so much of the very substantial volume of works carried out as of the artistic vitality and quality which has been manifested from sea to sea.

The members of the profession are all aware of the labours of the Council and of the Executive Committee in the matter of amending the Charter and revising the By-laws. As a consequence of the completion of these labours, the forthcoming annual meeting will be of an importance second only perhaps to that at which the Institute was first inaugurated in the year 1907. Members are therefore particularly requested to make every effort to be present at our yearly deliberations, or when unable to do so, to offer in writing or through the delegates of the Component Societies, their views as to the directions which the activities of the Institute should take in the coming year.

With Charter amendments and By-laws out of the way for some time to come, the Institute will find itself in the coming year in a stronger position than ever before to devote itself to the common good of the Component Societies and of the general membership. Thus can we serve the public cause of Architecture in Canada.

PERCY E. NOBBS



## Editorial

*The Editorial board and staff take this opportunity of extending sincere thanks to all those who have contributed in some measure to the success of THE JOURNAL during the past year and of expressing the earnest wish that the New Year may bring to all contributors, subscribers and advertisers increasing happiness and prosperity.*

THE frontispiece in this issue is from a water-color sketch of Cowdray Castle, Midhurst, England, by A. Leslie Perry, B. Arch., of Montreal. The reproduction is by four-color process and is approximately one-third of the size of the original sketch.

### BUILDING CONSTRUCTION DURING 1929

Although there has been a number of severe set-backs during the past year including an acute disturbance in the financial markets and a great reduction in the wheat crop to the value of over \$100,000,000, Canada has experienced the greatest era of building construction in its history. Contracts amounting to approximately \$600,000,000 have been awarded during 1929 representing an increase of 20% over any previous year. In the face of the set-backs mentioned above and also considering the marked decline in building in the United States, the increase is all the more remarkable.

One of the important contributing factors to this record of building construction is the unprecedented activity in the trade and commerce of the country as revealed in the Annual Statements of the Canadian banks and the reports of the Bureau of Statistics. Throughout the Dominion, business is in a very healthy condition and expansion is taking place in many industries in order to meet the increased demand for their products.

That the expansion in the building industry will be actively continued during 1930 is evidenced by the extensive building programmes of the larger corporations which reflect the optimism with which the country looks towards future prospects. With all signs pointing to a more plentiful supply of credit the financing of new legitimate undertakings should be much easier during the coming year.

### HOSPITAL PLANNING

At the twenty-second annual meeting of the Institute, which was held in Toronto last February, considerable discussion took place with reference to a resolution presented by Mr. B. Evan Parry recommending that the Canadian Medical Council be approached with a view to including courses in hospital planning and the fundamental principles involved therein in the curricula of the medical courses at the Canadian universities, also that these courses be made available to students in architecture. The object of this resolution was, we believe, to bring about a greater economy and efficiency in hospitalization throughout the Dominion.

In a subsequent discussion of the matter with Dr. Bazin, president of the Canadian Medical Association, Mr. Percy E. Nobbs, on behalf of the Institute, emphasized the need of greater co-operation between the two bodies and suggested the publishing of technical articles on hospital construction in the official publications of both societies, leading towards the dissemination of information valuable to members of both the medical and architectural professions.

In this connection we are privileged to publish in this issue the first of a series of articles on Hospitals; Their Planning and Equipment, by B. Evan Parry, M.R.A.I.C. Mr. Parry, as supervising architect of the Department of National Health, has given the subject a great deal of thought and study and his wide knowledge of hospital construction has resulted in his being called into consultation with hospital boards and their architects throughout the Dominion.

We feel that the information which Mr. Parry has compiled will prove of much value to architects in the planning and designing of hospitals and that his articles will provide both the architectural and medical professions with an authentic and valuable reference work.

### THE ROYAL CANADIAN ACADEMY EXHIBITION

Mr. H. Poynter Bell, art critic of Montreal, contributes an article in this issue in which he reviews the fifty-first exhibition of the Academy, held in the gallery of the Art Association of Montreal during the month of December.

The criticism heard annually that the architect academicians fail to adequately exhibit their work again applies as much as in previous years. Architectural sketches and drawings were conspicuous by their almost complete absence. If the annual exhibitions of the Royal Canadian Academy are to represent, as they are supposed to, the progress of the arts in Canada, then architecture, mother of the arts, should be more in evidence than it has been in the past.

### CO-OPERATION OF THE PUBLIC PRESS

The architectural profession has for many years endeavoured to secure the co-operation of the public press in stressing through its news and editorial columns the importance of architecture in the life of a community. The newspapers, always sympathetic in their attitude towards civic beautification, have unintentionally neglected to emphasize the value of well-designed buildings.



In this connection we were gratified to read the following editorial headed "Civic Architecture" in the Ottawa Citizen of December 23rd:

"At such time as the city comes to consider actual building, it would be well advised to initiate an architectural competition under the auspices of the Ontario Association of Architects, if it be limited to Ontario; or, if competition be open to more than one province, then under the auspices of the Royal Architectural Institute of Canada.—*From report of Mr. Noulan Cauchon, chairman of the Ottawa Town Planning Commission, regarding proposed new civic structures.*"

After quoting this extract from Mr. Cauchon's report the Ottawa Citizen continues:

"The foregoing is a timely note when the acquisition of new public buildings in Ottawa is being discussed. It is especially timely in connection with the question of a new city hall.

"It is, of course, true that the city would in any case seek the services of a competent architect if it contemplated the construction of a new city hall and new police and fire stations. But by adopting the competitive system and conducting it, if confined to

Ontario, according to the rules of the Ontario Association of Architects or, if open to all Canada, to those of the Royal Architectural Institute of Canada, the most satisfactory results in all respects will be obtained.

"Too little encouragement is given to Canadian architects in this way. There are in the Dominion a number of men in this profession who can create buildings that are comparable to those in other countries. But they are rarely given scope in which to exercise their talents. In the case of private buildings, it is frequently found that the architect has to sacrifice art to meet demands for low costs. In the case of public buildings, this should not be so, and capable architects ought to be given the chance to make designs.

"Both the Ontario and Dominion architectural associations have drawn up rules for competitions of the kind under review. They are designed to give fair play to the architect and to the public or the client."

Architecture has a definite place to fill in civic beautification. We appreciate this instance of the press giving to the subject the recognition to which it is entitled and venture to hope that the press in general will emphasize its importance.

## Early Syrian Architecture

*Excerpts from a lecture to the Architects' Club of Ottawa, by Rev. George Bousfield, on November 28th, 1929, at the Victoria Memorial Museum.*

Opening with a statement that originally the early Christian remains of Syria had been studied with a view to finding out if there were any traces left of the intensive work of St. Paul in Syria, which is dismissed in the Acts of the Apostles with mere references, the lecturer entered into a short review of the origin and character of the race, which, long before B.C. 1500, had competed with Egypt in the field of art craft and the general amenities of the civilization of the period—as exemplified in the finds in Tutankhamen's tomb, and those of the long anterior civilization of Sumer.

"Essentially a commercial people; sea traders as Phœnicians; merchants and agriculturists of a high order in Central Syria; and, as known by the name Nabbatæans, equalling the Phœnicians in their overland exploitation of countries as far apart as Gaul and India. Possessed of a fine sense of the artistic, they not only developed a beautiful indigenous architecture and ornament, but, absorbing the beauties of Egyptian and early Roman architecture, produced forms of beauty that make their buildings still the delight of the connoisseur in architecture. They easily submitted to conquest, the early art of Egypt being largely influenced by the spoils taken by Thothmes III.

"We can judge of the architectural ability of the Nabbatæans from the ruins of Petra and else-

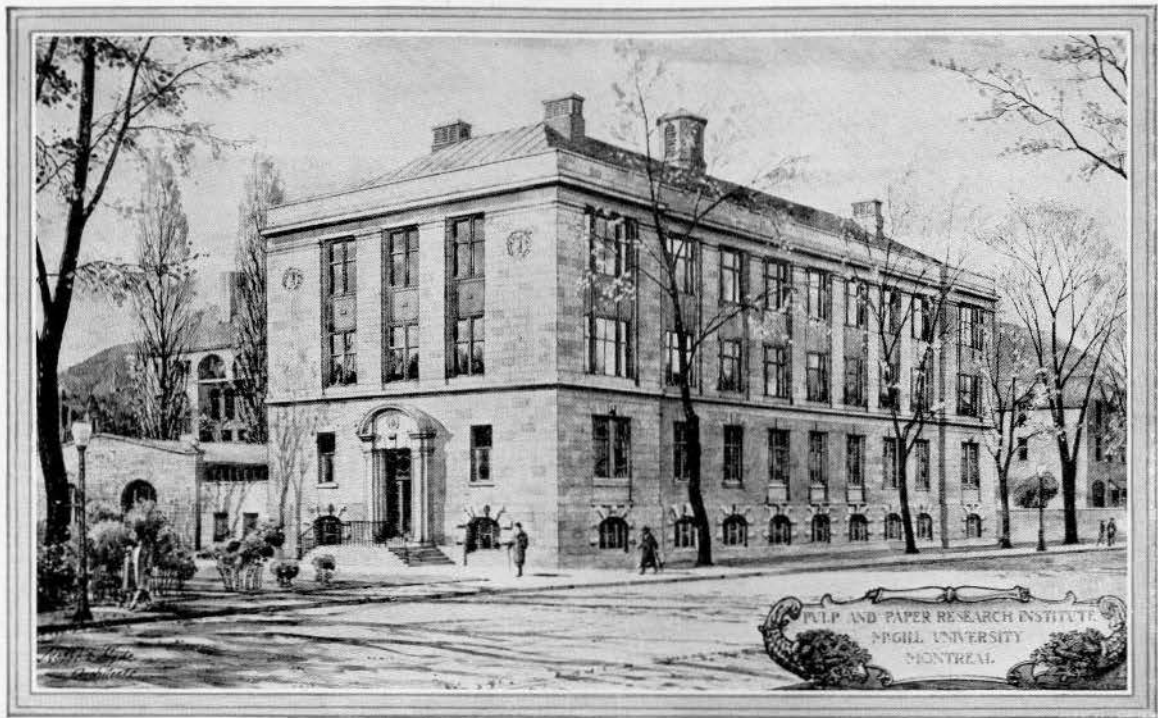
where, in the region now called Arabia Deserta. It has been, of course, known for centuries that the greatest architect in Rome during the reigns of Trajan and Hadrian was Apollodorus of Damascus but it was not until lately, after 1,300 years of eclipse, that the investigations of Marquis de Vogue, Prof. Howard Crosby Butler, of Princeton University, Miss Gertrude Bell and others, that the significance of the fact was realized. And it would not seem that all that was greatest and best in the hey-day of Imperial Rome is the result of Syrian architectural capacity. Even as late as the end of the fourth century A.D., the ten-acre palace of Diocletian, which still shelters nearly 20,000 people within its walls, was designed and built by Syrians.

"Later, the Syrians developed a style, now known as the Byzantine, a mixture of classical and Hindoo concepts. A find during the war on the Euphrates, convinced Prof. Breasted that Syria is the mother of all that magnificence that graced the main cities of the Eastern Empire.

"Centuries later, the wandering monks of Europe on their pilgrimages, took back with them certain architectural principles that developed into Saxon and Gothic architecture."

At the conclusion of the lecture, which covered a wide ground, a large number of slides were shown illustrative of the many points referred to.





## The Pulp and Paper Research Institute—Montreal

MESSRS. NOBBS & HYDE, F.F.R.I.B.A., ARCHITECTS

THE Pulp and Paper Research Institute of Canada is the tangible outcome of several years of co-operative effort carried on between the Dominion Government, as represented by the Pulp and Paper Division of the Forest Products Laboratories, and the pulp and paper industry, as represented by the Canadian Pulp and Paper Association. Associated in the Institute and finding a home therein is the Department of Industrial and Cellulose Chemistry of McGill University. The structure itself is, temporarily, the property of the Association. The ground upon which it stands is owned by the University and is leased to the Association. Eventually the entire property will pass to the University. The Institute and its equipment represent a capital outlay of well over half a million dollars, without taking into account the value of the land. The building and a large part of the equipment were financed through an issue of bonds and a considerable cash contribution by the Association. Supplementing this, the Government has provided part of the machinery

and equipment for the Pulp and Paper Division. Generous donations have also been made by manufacturers of machinery.

The Institute is situated on University Street, Montreal, on the grounds of McGill University, and abuts on the University Campus. The exterior is of limestone. The main structure consists of two stories within one order of piers, the sub-structure consisting of a main floor and a high basement. Provision is made for an additional wing at the north-west end corresponding to that at the south-east end and an attic story. The scale of the adjoining buildings on the University Campus has been carefully maintained. The planning is on the unit principle and the utmost advantage is taken of the north-east exposure for laboratory lighting by large windows. The design is thus thoroughly modern in its general realism. The detail is sparing and of the free Anglo-Classic school. The building consists of two distinct elements; the main building, housing the executive offices and the chemical research laboratories—a three-storied structure

with high basement—while the mill building, immediately to the rear, is a one-storey structure of typical mill design.

The first floor of the main building is given over largely to office accommodation, the executive offices of the Association, and those of the division of Pulp and Paper, Forest Products Laboratories of Canada, being situated there. On this floor also are the library and lecture theatre. The second floor is largely devoted to accommodation for the Department of Industrial and Cellulose Chemistry of the University, with the director's office situated in the south-west corner of the floor.

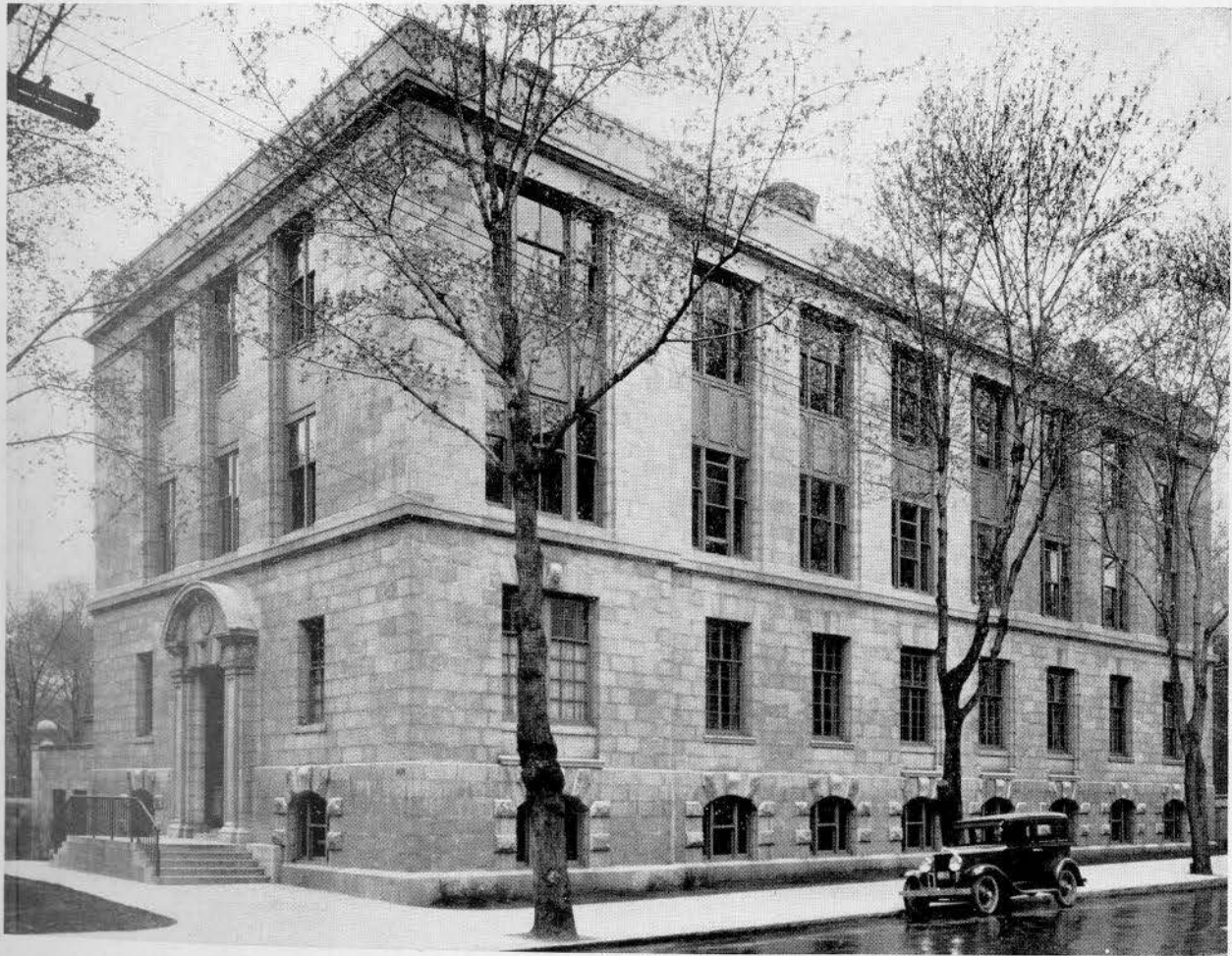
The third floor of the building represents very similar accommodation to that of the second, save that the large laboratories are occupied jointly by the Department of Industrial and Cellulose Chemistry and the Pulp and Paper Division. The joint laboratories include the physical chemistry laboratory and the colloid laboratory in two large rooms; the photographic room, with its self-contained dark room and microscope benches, where the microscopic work of the Institute is carried out; the nitration room, particularly adapted for work on

the nitration of cellulose and similar compounds; and a controlled temperature and humidity room. The chemical research staff of the Division of Pulp and Paper are accommodated in a suite of three unit research laboratories on this floor, with an adjoining larger laboratory for special apparatus installations and physico-chemical work.

Plans for the Pulp & Paper Institute were prepared by Messrs. Nobbs & Hyde, architects, of Montreal, and construction commenced in the summer of 1927. On October 13th, 1927, the corner-stone of the building was laid, with appropriate ceremonies, by the late Hon. J. A. Robb, Minister of Finance in the Dominion Government. The building was formally opened in January, 1929, by His Excellency, Viscount Willingdon, Governor-General of Canada.

The engineering and laboratory service equipment was designed by Messrs. Combe & Ryan and is of necessity very complicated in view of the highly specialized work to be done in the laboratories.

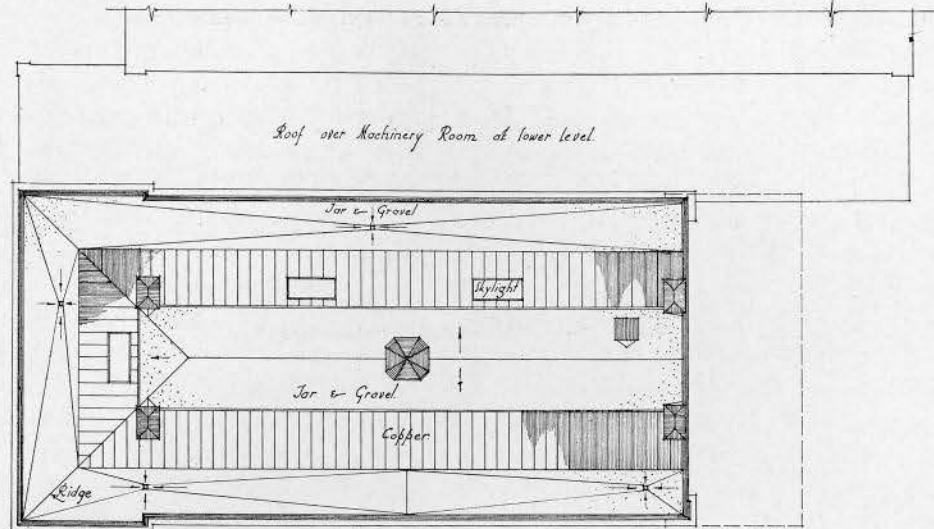
The general contractors were the E. G. M. Cape & Company and the fittings are by Messrs. Geo. Roberts & Sons, both of Montreal.



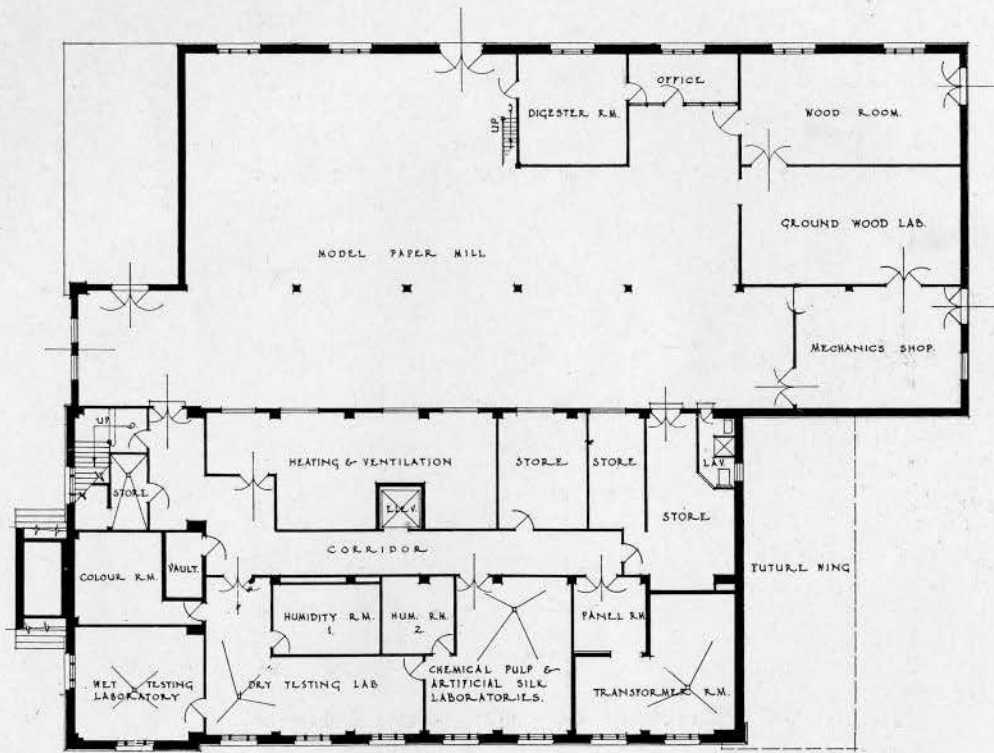
PULP AND PAPER RESEARCH INSTITUTE, MCGILL UNIVERSITY, MONTREAL  
*Nobbs & Hyde, F.F.R.I.B.A., Architects*



*Pulp & Paper Research Institute  
McGill University Montreal P.Q.*



*Roof Plan.*

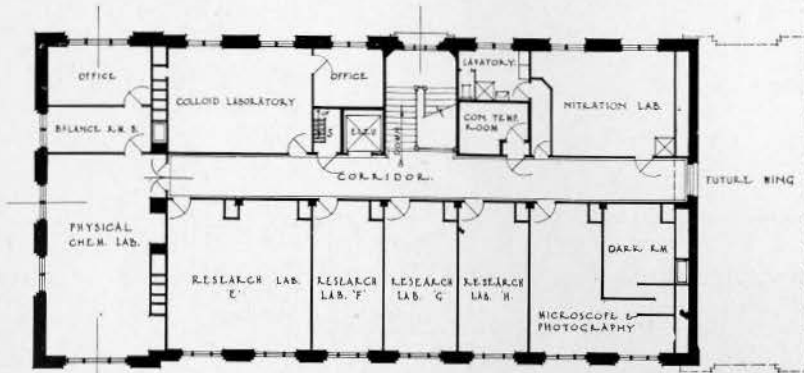


*Basement Floor Plan.*

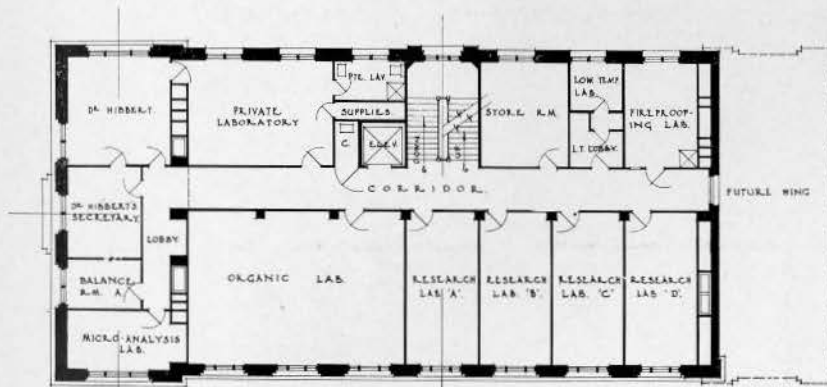
0 10 20 30  
Scale of Feet

*Nobbs & Hyde Architects  
14 Phillips Square Montreal*

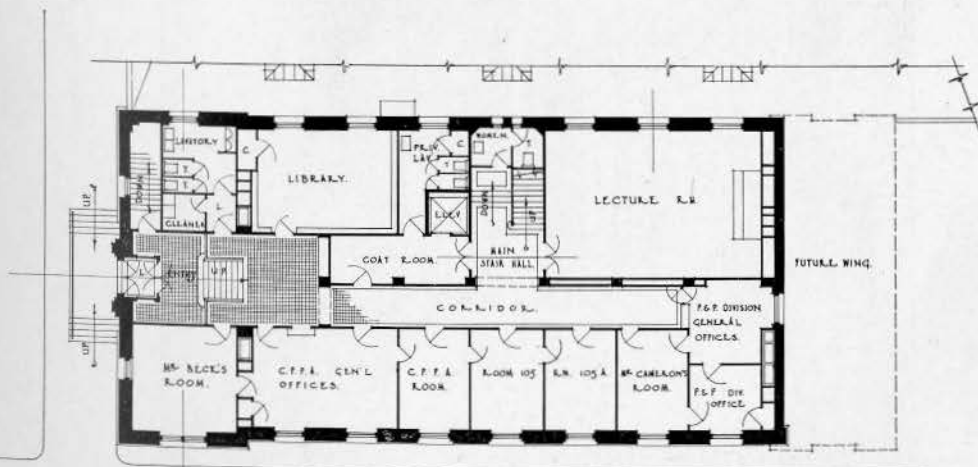
*Philp & Fober Research Institute  
McGill University Montreal P.Q.*



*Third Floor Plan.*



*Second Floor Plan.*



*First Floor Plan.*

1" = 32'-0"   
 1/4" = 8'-0"   
 1/8" = 4'-0"   
 1/16" = 2'-0"   
 1/32" = 1'-0"   
 Scale of Feet

*Robbs & Hyde Architects,  
14 Phillips Square Montreal.*



*EDITOR'S NOTE—The architects have very kindly furnished us with an analysis of the cubage and cost of the Pulp and Paper Research Institute which we publish herewith for the information of our readers.*

The cost of the building was as follows:

Construction .....	\$172,000.00
Engineering for building .....	38,000.00
Engineering for laboratory equip- ment .....	39,000.00
Furniture and fittings .....	33,000.00
<b>Total .....</b>	<b>\$282,000.00</b>

The cubage works out as follows:

Main Building .....	375,000 cube feet
Construction .....	36.2 cents per cube foot
Engineering .....	18.1 cents per cube foot
Fittings .....	8.0 cents per cube foot

Mill Building .....	225,000 cube feet
Construction .....	16.0 cents per cube foot
Engineering .....	4.0 cents per cube foot
Fittings .....	1.3 cents per cube foot

The analysis is as follows:

Effective floor area .....	73.5%
Passages and stairs area .....	12.5%
Walls and ducts area .....	14%

The cost of installation of heavy mill machinery is not included in the above figures as this has been borne by the Federal Government.



DETAIL OF MAIN ENTRANCE



*S. H. Maw, Del.*

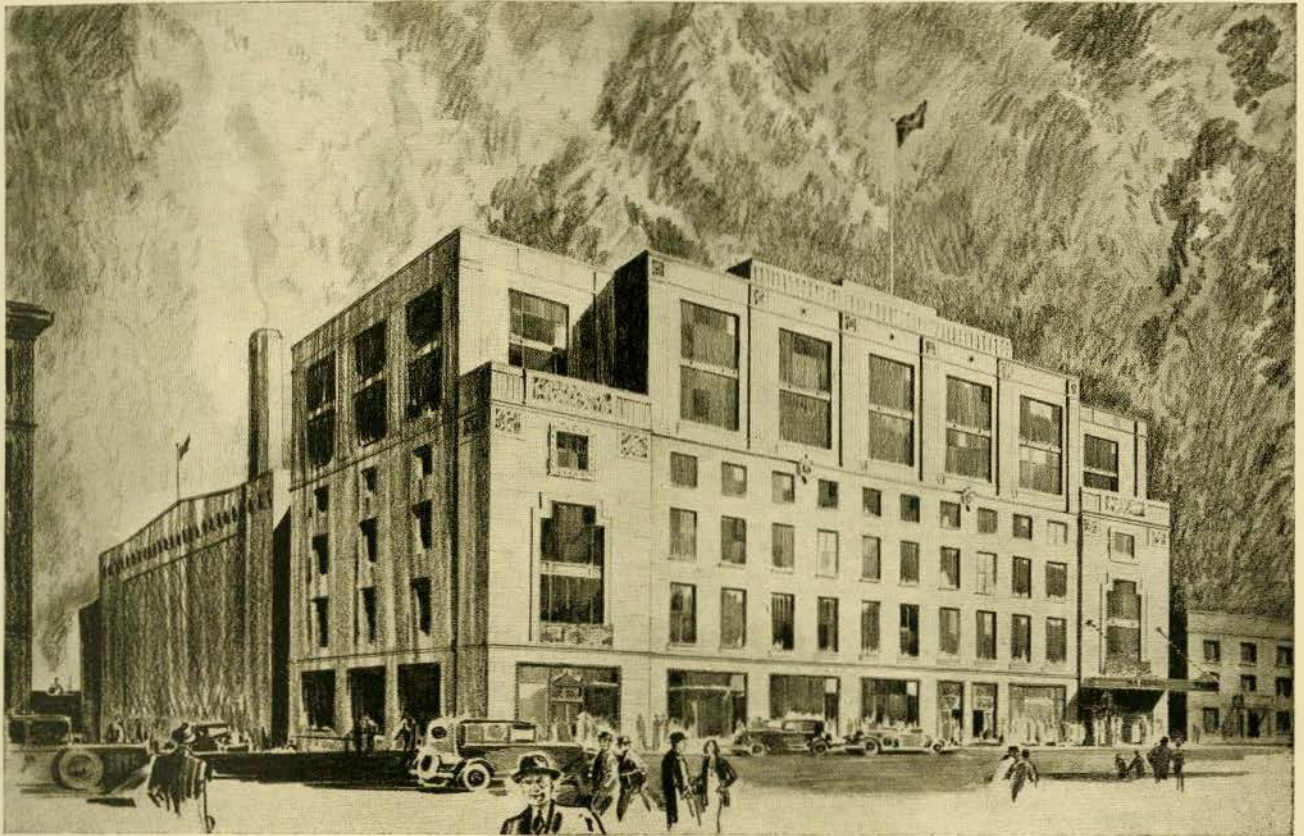
NEW HEAD OFFICE BUILDING FOR THE SUN LIFE ASSURANCE COMPANY OF CANADA—MONTREAL  
*Darling & Pearson, Architects*





UNIVERSITY TOWER—MONTREAL  
*H. L. Fetherstonhaugh, Architect*





*Charles Comfort, Del.*

THE NEW CAPITOL THEATRE AND OFFICE BUILDING—HALIFAX, N.S.  
*Murray Brown, Architect*

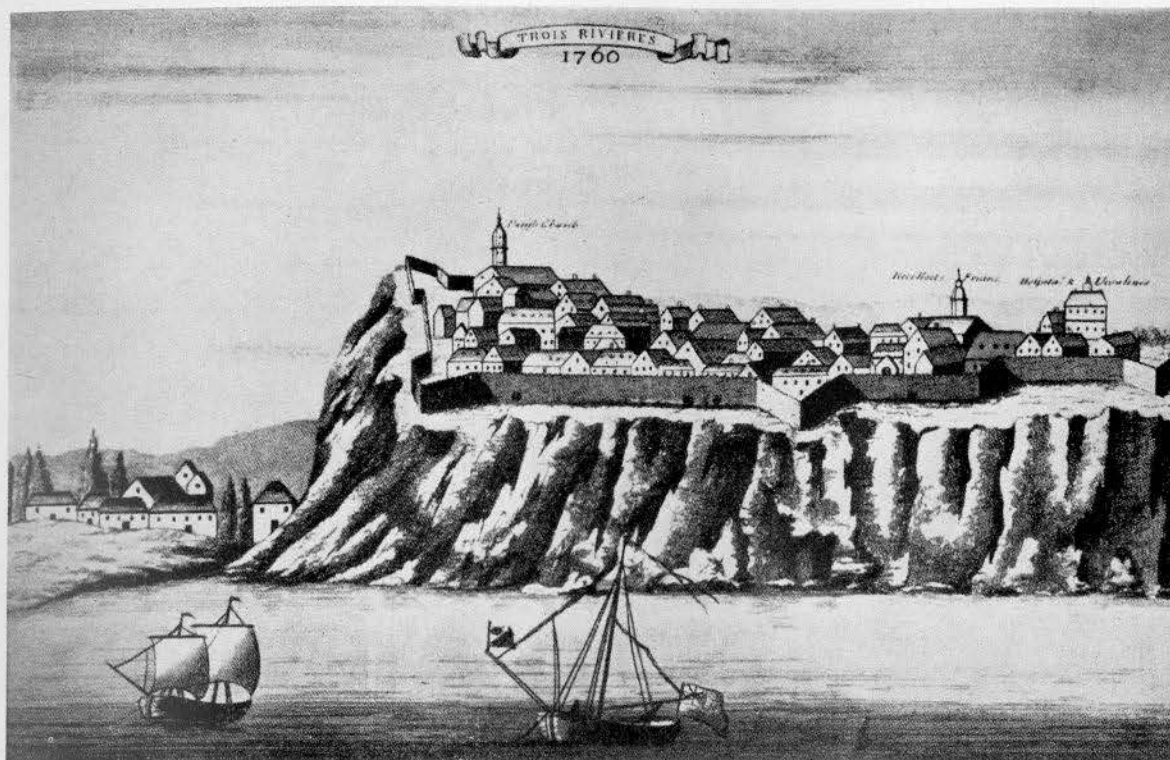


RESIDENCE FOR H. M. BANKS.  
WESTMOUNT QUE.



*A. Leslie Perry, Del.*

RESIDENCE FOR H. M. BANKS, ESQ.—WESTMOUNT, QUE.  
*Perry & Luke, Architects*  
(Shown at the Fifty-first Exhibition of the Royal Canadian Academy of Arts)



HOTEL DIEU—THREE RIVERS, P.Q. (1760)

## Hospitals—Their Planning and Equipment

BY B. EVAN PARRY, M.R.A.I.C.,  
SUPERVISING ARCHITECT

DEPARTMENT OF PENSIONS AND NATIONAL HEALTH, CANADA

*Editor's Note—This is the first of a series of articles by Mr. B. Evan Parry on Hospitals—Their Planning and Equipment. The second of the series will be published in the March issue.*

### I. A STUDY OF THE PROBLEM

WITH or without foundation, there seems to be an impression that the modern hospital is costing too much and, at the present time, this phase of human welfare is being given close study by many prominent authorities in the hospital world.

Would it not be advisable for Canadian architects, in view of the anticipated hospital building programme during this next decade, to give serious thought to the subject as a whole, and initiate research work worthy of such an important phase of architecture, thereby further establishing the claim that the Dominion, through its architects, is both capable and competent to deal with all structures incidental to the activities and welfare of its people.

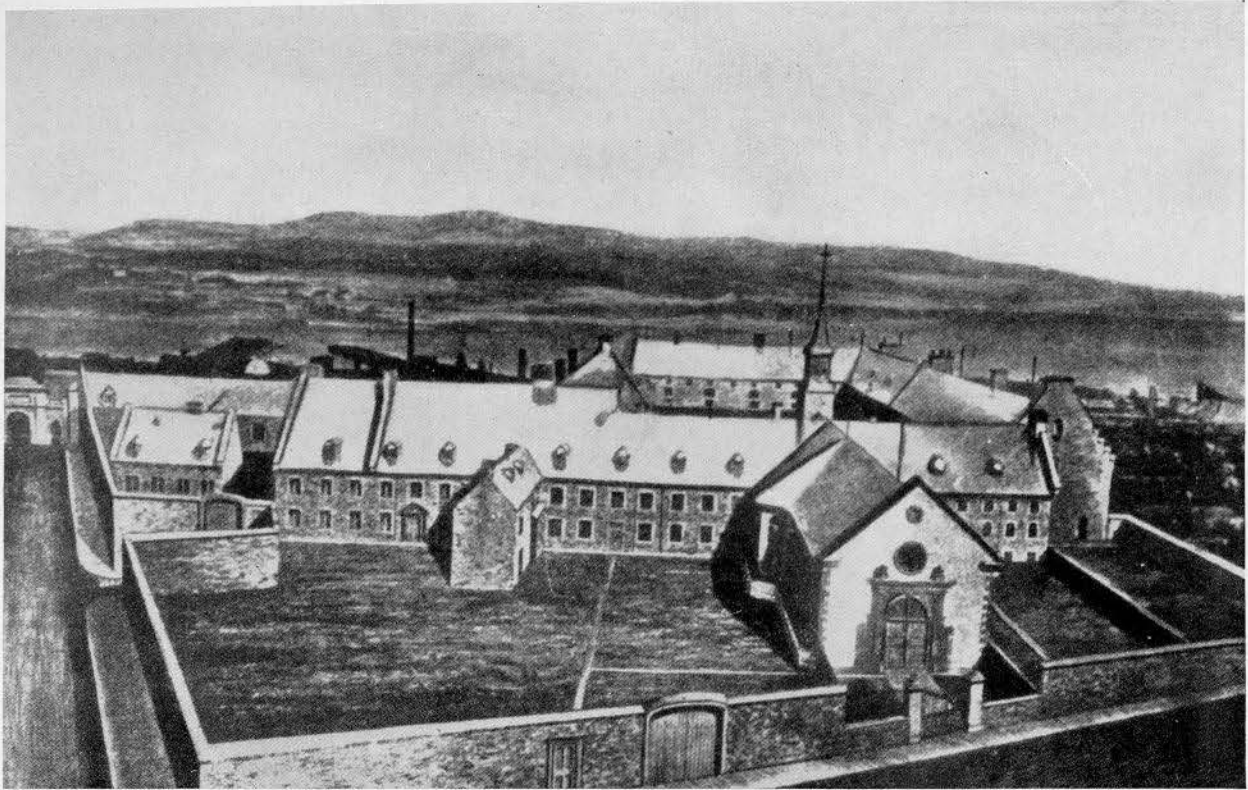
The object of these articles makes it unnecessary to portray any historical sketch of the growth of the hospital from the days when it represented only a place of refuge for the sick in poverty to the present day, when it has become a complete organism serving the entire community, taxing vast financial resources and the best brains to insure its proper functioning.

Let it always be remembered that primarily the function of the hospital is the care of sick, since, in the complexity of its present organization, this fact may be lost sight of. However, it must be fully recognized, at the present time, that the care of the sick has expanded so as to include the care of the health of the entire community.

In all our modern hospitals, there is now a full appreciation of the fact that those who are in ill health, but whose illness does not necessarily deprive them of all activity, are much more numerous and in much more need of help than are the acutely ill. Hence the out-patients' departments have at last come into their own, and in many of the more progressive and better organized hospitals the real core of the whole organization is found in the out-patients' department, the beds of the wards being used only for those who are too ill to come and go to and from the hospital, or who need forms of treatment which require confinement to bed.

Further, the hospital should make itself responsible with other organizations for the health of the community which it serves.





HOTEL DIEU—QUEBEC (1639)

In summary, therefore, the hospital, as at present organized, should represent the brain centre of all those activities which benefit the individual sick and the health of the community within its sphere of influence.

It is not to be inferred that all hospitals should be expected to carry on the extensive functions centering around the patient, as herein outlined, but rather to emphasize the thought that the care of the patient is the primary function and that each hospital must work out for itself the extent of field which it is able to properly cover.

The conception of a modern hospital today is that it shall find its ultimate usefulness in the function of the care of the sick and conservation of the health of the community. Radiating from this central idea is to be seen the hospital as a centre for the advancement of medical science, for medical education and for the stimulation of the highest traditions and ideals of the medical profession.

The architect must be imbued with this conception of the essential functions of a hospital if he is to produce "a well rounded out" result.

Hospital costs vary as also hospital values. It should never be said that the cost of hospital construction is so much per bed in the arbitrary way in which many so-called authorities on hospital planning have the habit of doing. Generally, it is to be found that such advice emanates from the man of a somewhat limited experience.

By a more intensive study of the subject, it becomes obvious that an arbitrary statement of that nature is misleading, since there are different grades of various types of hospitals.

Architects who have designed hospitals know that their first difficulty is in deciding upon the plan and its composition; the character of its units and of its parts; and subsequently when writing

the specifications, deciding upon the character of the building itself.

The selection of materials has an important bearing on hospital construction; and it may be justifiable to spend twice as much per unit for one hospital than for another, provided the expenditure can be shown directly or indirectly to yield results.

The architect will only achieve success in planning a hospital when he combines the various departments into a well proportioned, smoothly functioning and not unduly expensive whole.

It may be opportune at this juncture to give a word of warning against the tendency to crowd into hospital buildings more equipment than can be economically used. A fixture will not take the place of a nurse, although there is evidence that some hospital planners assume it will.

Prominent hospital planners today are of the opinion that hospitals and medical centres of excessive size should be avoided; especially so where they become so great as to interfere with the smooth functioning of group medicine in the modern sense.

The requirements of group medicine are not satisfactorily met when the individual clinical units are of such size separately as to absorb an undue part of the time and strength of the clinician in charge of administrative work, and where the distances, whether vertical or horizontal, between clinical departments are so great that the intimate interchange of ideas between the heads of departments is impossible.

The opinion that one often hears in this country that the widespread pavilion type of hospital is not suitable and should be abandoned, substituting therefor the towering structures to be seen in the great cities of this continent, should not be accepted without studying what is involved. For instance,

if the relative composition is so great that vertical communication becomes as difficult in its way as horizontal communication was with the old style of planning, then the object which is sought in a concentrated plan is defeated.

Perhaps a note of warning would not be out of place in advising architects to guard themselves against a too facile acceptance of the standards to which they have grown accustomed by long use.

The gulf between the lowest and highest rates of expenditure for hospital construction warrants the assumption that basic principles are not understood or that they are not applied.

The first requisite of a theory of the economics of hospital planning is a unit of value. Such a measure is not easily defined. The totality of the service which hospitals render to the sick is the real measure of their value; but such services are of too many kinds to be expressed in a single mathematical term. The service of the hospital is not confined to the occupants of hospital beds; it is widespread and extends to all those, whether in or out of the hospital, whose health and welfare are affected by the hospital's teaching and practice. To trace the far-reaching effects of hospital activities is to perceive that hospital planning has many implications; that it is a complicated art; that it involves grave social responsibilities, and that the proper evaluation of the usefulness of a hospital building can not be made without much study.

If hospital costs vary, so also do hospital values. Whereas a hospital planned and equipped merely for the shelter of the sick, for the administration of simple remedies, for the performance of slight laboratory tests and of routine surgical procedures, may be built at a relatively small cost, one which is generously equipped for research and for teaching requires a much greater outlay.

The actual cost of a hospital building is of great practical importance to the building committee. But in a theoretical approach to hospital planning, the mere cost of construction can not be accepted as the ruling factor. The size or composition of a correctly planned hospital building and the character of its equipment, which basically determine cost, must be deduced from functional needs and *not* from the treasurer's report of available funds. A logically conceived hospital plan is not one in which a given space or composition is arbitrarily assumed and then subdivided to the best of the architect's ability, but one in which the requirements of the various hospital functions are first studied separately, the forms and space allowances thus ideally conceived for individual departments being afterwards put together in the least disadvantageous combination possible.

In approaching the subject of hospital planning certain questions must be put and answered. What are the proper proportions of the parts that go to make up the hospital as a whole? How can these parts be so united?

Certain phases of planning which derive their special characters from administrative principles and practice, and which influence the cost of construction and affect the hospital's efficiency, should be considered.

Bulk, arrangement and equipment, in an intelligently planned hospital, are determined by administrative principles. The materials used in the general construction of a hospital affect its cost but is a phase of general construction or of domestic economy rather than a special problem of hospital economics.

Given a hospital of a certain capacity, what is its proper composition? Attempts have been made to show that for each hospital bed it is possible to



VANCOUVER GENERAL HOSPITAL—FIRST BUILDINGS COMPLETED AND OCCUPIED 1906  
OTHER ADDITIONS COMPLETED AT INTERVALS TO DATE



establish a normal bulk—so many cubic feet of construction, and no more. This pronouncement can not be valid because of wide variations in the class or classes of patients sheltered and because of the range of service performed in hospitals organized for different purposes and upon different lines. Private room service for a given number of patients consumes more space than ward service; and one hospital may properly have many private patients, another few or none. As hospitals increase in size, the number of distinctive clinical departments grows, and their differentiation calls for an increase in the ratio of service space to ward space.

Carefully planned general hospitals range in bulk from 8,000 to 16,000 cubic feet of construction (occasionally even more) for each patient's bed, and the higher as well as the lower of these limits has been explained and defended on grounds of administrative policy.

It would appear to be in order to discuss briefly the principal elements which determine the size, composition and cost of a hospital building.

The relative numbers of private, semi-private and ward patients influence, in a marked degree, the size of a hospital building of a given bed capacity. In many parts of this continent, the minimum cubic space allowance for patients in public wards is only 800 cubic feet, which means that with a ward ten feet high from floor to ceiling, 800 cubic feet per patient provides 80 square feet of floor space per bed, although, on the other hand, many authorities propose the more liberal stand of 1,000 cubic feet with 100 square feet of floor space per bed. Private rooms, based on the minimum requirements of 800 cubic feet, would measure only 8 ft. by 10 ft., which, by the way, are extremely rare. Rooms 9 ft. 6 ins. by 13 ft., 10 ft. by 14 ft., 10 ft. by 15 ft. and 11 ft. by 16 ft. are more common; deluxe rooms are, of course, larger. These measurements are exclusive of the private or individual toilets or baths which are provided nowadays, not so much for the patients' comfort, but more particularly so to facilitate nursing service.

The favourable showing of a strictly private hospital, made up entirely of single bed rooms, is due to its restricted incidental requirements. A strictly private hospital, for example, has no need of a dispensary or of a social service department; its laboratory programme is likely to be a limited one, excluding research; and its interne staff and resident nursing staff are relatively small. Thus, increased space requirements in the wards or patients' rooms are counterbalanced by reduced requirements elsewhere.

Hospitals which care for both private and ward patients demand the greatest space. Such hospitals provide space-consuming private rooms and their accessories, as well as all of the liberal features of a public hospital with respect to scientific investigation, teaching, convalescent care, social service, and follow-up work.

Of two possible ward plans, that which presents the smaller bulk will usually be the cheaper to build and maintain, but it does not follow that the plan which goes farthest toward economizing space is the better plan in a functional sense.

It is, of course, altogether an important matter of administrative programme how the available floor area of a given building shall be subdivided; hence the hospital authorities, not the architect, are

ultimately responsible for the character of a ward or semi-private patients' building, its capacity and its relative cost.

It is an elementary principle that costly service features must not be multiplied so freely as to absorb an unduly large proportion of the hospital's capital investment, and yet it is precisely this error which is creeping more and more into modern hospital planning. Eagerness to excel in the richness of mechanical equipment has led more than one hospital executive to sanction reckless expenditures for fixtures costly to install, troublesome to maintain, and insufficiently used to justify their inclusion in the hospital plan.

By a study of space-consuming professional departments, as apart from the area which is devoted to the shelter and immediate care and treatment of bed patients, wide variations will be exposed.

For instance, a concrete case may be cited as to the dispensary or out-patient department being planned for two neighbouring general hospitals about 600 beds each. In the one case, it is estimated that the dispensary requirements are that of 200,000 cubic feet; the other case demands a dispensary of 500,000 cubic feet. The larger of these two dispensary buildings will be used for undergraduate teaching; the smaller will not.

The cost of hospital construction during the past decade has been considerably augmented by the growth of the out-patient department. Hospitals that considered out-patients' departments unnecessary twenty years ago now find them indispensable.

Comparable to the expansion of the out-patient service is that of the x-ray department. Whereas twenty years ago hospitals ranging from 100 to 500 bed capacity had a single radiographic machine representing the total equipment of the hospital, anywhere between 4 to 8 separate machines are now required in the modern hospital for diagnostic and therapeutic purposes. Years ago, the x-ray department of the hospital occupied a space anywhere between 300 and 400 square feet, whereas today, the modern department requires 3,000 to 4,000 square feet, and not only has the area increased, but with the exacting technical requirements today, the cost has mounted considerably.

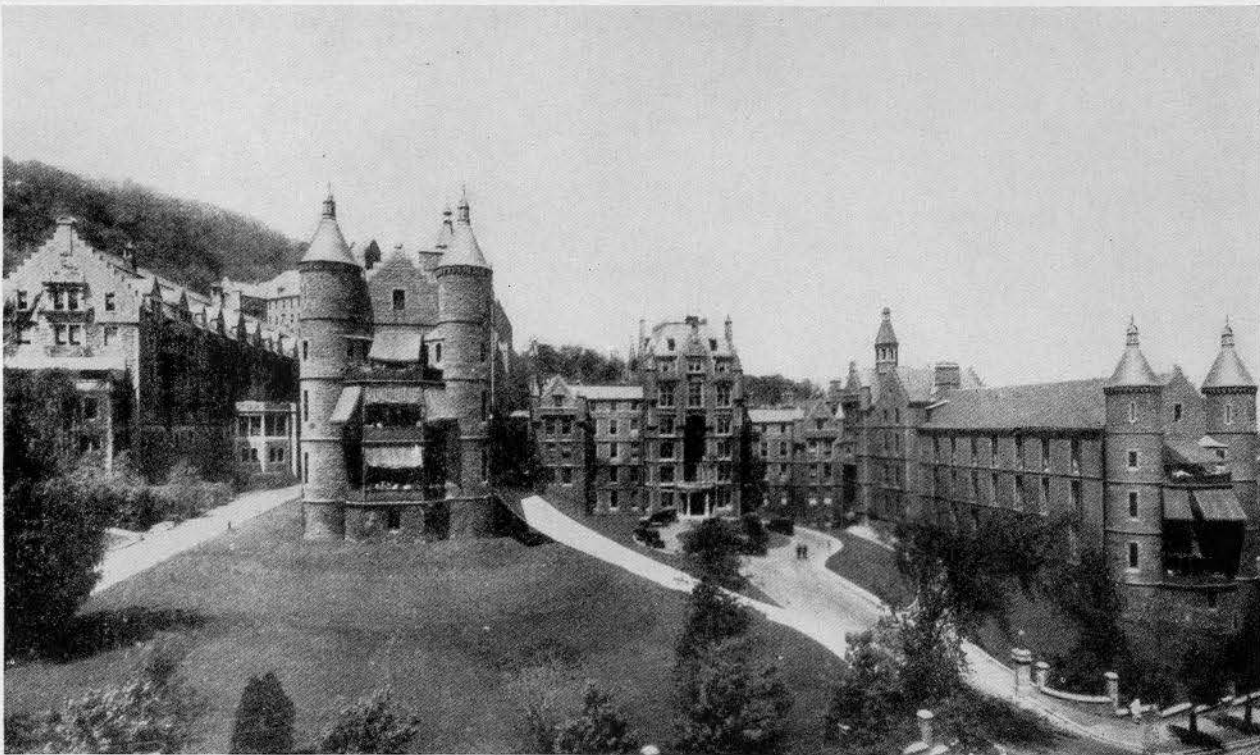
Again, the biologic, chemical and pathological laboratories, like the x-ray department, are expensive, owing to the very elaborate technical arrangements, and their claims are both pressing and significant. Today, 10,000 square feet is considered far from adequate and is in fact 50% less than the laboratory space which some hospitals of the same size and scientific pretensions are profitably employing. All clinical departments of the hospital now demand laboratory support, and in constantly increasing measure.

Physiotherapy in Europe has held a prominent place for many years. In hospitals on this continent, the area which is set aside for this department is not an extensive one. However, a widespread belief exists in the future of greatly enhanced usefulness for this department. Hospital planners to-day will endeavour to locate it strategically, with an eye to its future expansion. Thus architects engaged upon schemes for large medical schools will not lose sight of the significance of medical physics, making generous arrangement thereby in their plans.

The story of the operating room is quite an interesting one when comparisons are made with those which obtained in the past and one may even say at the present time, to those which are now being developed to meet the demands of modern surgery. Twenty years ago, a single pair of operating rooms was deemed sufficient for a hospital of 200 beds, whereas to-day five or six such rooms are demanded and, in the case of hospitals of 500 or 600 beds, which were formerly content with four operating rooms, a demand is now made for a dozen. The principal reasons for this expansion are the multiplication of surgical procedures or the expansion of surgery into new spheres and the shortening of surgical convalescence. A typical instance of modern operating room planning is that of a 650-bed hospital, which has set aside, as a

by if not in the record room, space must be reserved where histories may be assembled by members of the staff.

Perhaps one of the most conspicuous forces which have added to the cost of hospital construction is the growth of the department of nursing. In certain parts of this continent to-day, the current ratio is one nurse to every two patients; in other cases, hospitals are adopting a ratio of two to three. Nurses' homes have undergone radical changes during the last decade. Bed rooms shared by two or more nurses have generally given way to single rooms; narrowly restricted living quarters and scanty recreational facilities have been replaced by accommodations of a far more spacious character, and in place of inadequate teaching facilities, current practice supplies a com-



ROYAL VICTORIA HOSPITAL, MONTREAL ERECTED IN COMMEMORATION OF JUBILEE YEAR OF THE REIGN OF HER MAJESTY QUEEN VICTORIA, WITH ADDITIONS AT INTERVALS TO DATE. (ILLUSTRATION IS OF HOSPITAL AT PRESENT)

surgical centre, a floor area of 14,500 square feet, wherein are distributed 13 operating rooms and their associated service rooms. This space does not include rooms for the preparation and sterilization of surgical dressings, to which an additional space of 2,500 square feet is assigned.

The modern hospital, with the introduction of formal and informal post-graduate medical education, lecture and demonstration rooms are required, although not a "teaching hospital" in the university sense. In many communities, the cult of the autopsy has taken strong hold, and pathologic material is exhibited not only to the hospital staff, but to invited medical guests, for whose accommodation demonstration rooms of suitable size and character must be provided.

In the central record room of a moderate-sized hospital, wherein sorting, filing and handling of records calls for the employment of a considerable staff, working space must be provided, and close

plete school equipment, including class-rooms, laboratories, reference libraries, instructors' offices, assembly and demonstration rooms. An up-to-date school of nursing to-day requires for dormitory, recreational and teaching purposes not less than 4,000 cubic feet for each nurse.

The substitution of fireproof buildings with interior sanitary finish and a multiplicity of plumbing fixtures, has at least doubled the cost of each cubic foot of construction. The capital outlay required to-day for the housing and teaching of nurses in a typical general hospital is actually from eight to twelve times as much per patient as the sum that was required twenty years ago.

Next in importance, in point of numbers, to patients and the nursing group, are the household or domestic employees. The greater the stability of these groups, the better for the hospital and its patients. Experienced hospital administrators, when viewing the question of suitable living



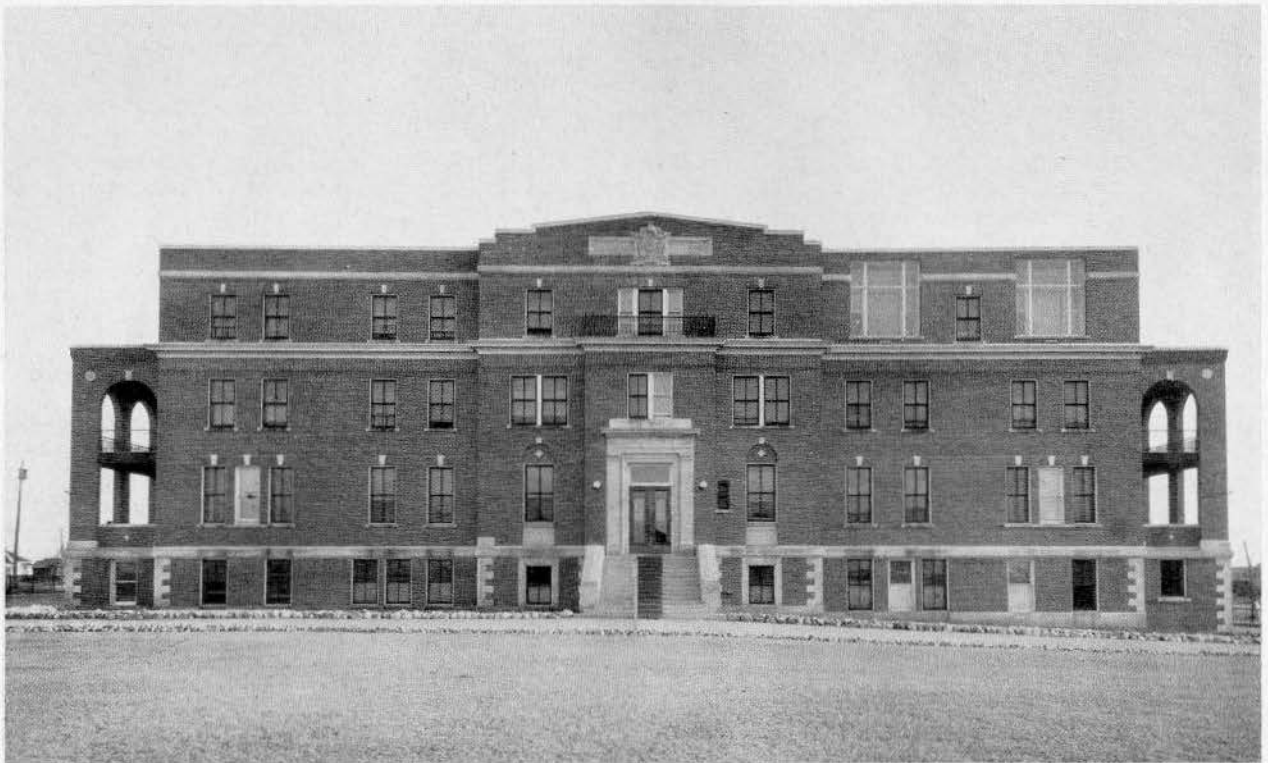
quarters for their employees, contend that the use of odd corners of buildings designed for other purposes no longer have any justification for providing suitable accommodation for this group, whereas suitable dormitory buildings for such purpose may become an asset to hospital administration.

Dormitories for domestic workers differ from those designed for nurses in the more modest size of single bed rooms (if such rooms are employed at all), in the more frequent use of bed rooms designed for the common occupancy of two or three persons, in a simpler type of finish, in the restricted size of common living and recreation rooms, and in the uniform absence of separate kitchens which are sometimes found in the larger or more isolated

etc.). The foregoing calculations are based on the figure of 12,000 cubic feet of total hospital construction for each patient's bed.

Another phase of hospitalization not to be overlooked is the contagious unit. Public health authorities believe that every general hospital should maintain at least a small isolation ward for the care of occasional contagious cases that can not be prevented from cropping up and that are not suitable for transfer to a central contagious-disease hospital; the beds in these small contagious wards are often unoccupied for months at a time, yet the inclusion of this space in the building programme is justified.

In dealing with special wards for temporary occupancy which add to the cost of hospital con-



BRANDON GENERAL HOSPITAL—BUILT IN 1890; NEW ADDITION BUILT IN 1922

nurses' homes. It must be remembered that while the entire permanent nursing force of the modern hospital on this continent is domiciled in hospital buildings, only a small fraction of the domestic servant group and some of the employees engaged in mechanical pursuits, and perhaps a still larger proportion of clerical workers, laboratory technicians, and the like, are not. Notwithstanding these limitations, dormitories and living quarters of miscellaneous employees and also of the resident medical staff and of certain executive officers make up an item with which the hospital architect must reckon seriously.

Taking a general hospital with a capacity of 500 beds, say 250 private and semi-private and 250 ward patients, with a cubic content of twelve million cubic feet, two million of this total should be provided for the accommodation of 300 nurses, including school and recreational facilities, 300 miscellaneous employees, 30 medical residents or internes, together with executive officers and a number of special groups (anesthetists, dietitians,

construction, the receiving, emergency or observation ward may be referred to. As a receiving ward, this department must provide a place where the symptoms of all newly admitted patients can be studied sufficiently to determine the proper clinical classification. As an emergency ward, its function is to offer bed space, treatment rooms and the necessary personnel to ensure immediate attention in every sort of emergency. As an observation and detention ward, this section of the hospital plays a particularly important role in the case of children's hospitals, in providing means for the prompt isolation of contagious suspects and thus protecting the general wards from contamination. It is generally assumed that the receiving ward of a general hospital should have a capacity equal to one day's admission. In actual practice, the capacity of the receiving ward is likely to be only one-half or two-thirds of the size which is theoretically desirable. For a children's hospital, the "observation" ward should be considerably larger. The receiving ward requires only a small kitchen and no dining room

or solarium for convalescents; on the other hand, it demands a liberal allowance of space for history, examination and treatment rooms.

The space which the modern hospital requires for purely administrative purposes is far from negligible, inasmuch as central offices of hospitals nowadays resemble the busy and populous offices of industrial corporations. The administrative scheme of a large institution often requires the separation of its purely clerical workers into groups occupying separate offices, in which case the allotment of office space must be somewhat increased. The provision of locker and rest rooms for office workers is customary and proper.

To-day, the comfort of visitors receives thoughtful consideration by hospital planners. A pleasant

private patients, another for the combined service of its ward patients and the entire hospital personnel, and a special diet kitchen for calculated diets. The space allowances for this service, which are by no means excessive, are as follows:

Main kitchen (for 1,000 persons), including vegetable preparation, scullery and dish washing space . . .	4,000 sq. ft.
Private patients' kitchen (for 250) with similar accessories, plus space for the setting up of individual trays . . . . .	3,600 sq. ft.
Special diet kitchen (for a small but variable number of diets individually prepared) . . . . .	900 sq. ft.
Dietitians' offices . . . . .	500 sq. ft.



SELKIRK RECEPTION HOSPITAL—BUILT IN SEPTEMBER, 1923

reception room is often the means of securing the confidence of the prospective patient. Also for accompanying relatives, whom it may be necessary to detain for some hours, suitable waiting rooms must be provided—not only large common waiting rooms, but private consultation rooms as well.

In dealing with the food service, attempts have been made from time to time to establish a fixed formula to express the amount of kitchen space required for a hospital of a given capacity. It must not be overlooked that some of the public hospitals distribute the food for patients and employees in bulk from a single central kitchen, whereas in others, the preparation of individual patients' trays is treated as a function of the central kitchen, which practically requires the expansion of kitchen territory, and further, may or may not be counterbalanced by a reduction in the size of serving pantries adjoining the wards.

An excellent example may be cited of a hospital with a 650-bed capacity, which has its kitchen service arranged in separate units, one for its

Food receiving, preparations, grocery storage, refrigerators and cold rooms, butcher shop and dairy preparation and distributing room, serving all three kitchens . . . 4,000 sq. ft.

Total central kitchen service for a mixed hospital of 650 beds (private, semi-private and ward patients) . . . . . 13,000 sq. ft.

It is a not uncommon practice, in the case of very large hospitals, to set up a fourth kitchen in the nurses' home for the exclusive use of the nursing force. This necessitates an additional space allowance for the total kitchen service of the hospital.

German authorities some few years ago argued that the preparation of food for the sick was an individual problem involving many considerations of a physiologic and psychologic nature, and entered a plea for maximum decentralization of hospital kitchen service, with a view to providing good freshly prepared food in individual portions. What-



ever the forces of logic in this argument, it will not be welcomed by hospital authorities, since it implies that every ward is entitled not merely to a service pantry, but to a small productive kitchen and a competent cook of its own.

Most hospital administrators are ready to assume that all hospital employees must be fed in and by the hospital; willingness to experiment with modified and substitute schemes for special groups of hospital employees might, in the long run, lead to the elimination of at least a part of this service and to a corresponding reduction in the cost of hospital construction.

There are wide variations in laundry service. Therefore, it is quite impossible to make a hard and fast rule concerning the amount of laundry equipment required by a hospital and the necessary space for its installation. Hospital superintendents usually find that the service of a commercial laundry is not sufficiently dependable or flexible to satisfy the hospital's needs, and that the cost of commercial service is apt to be greater than the laundry service being supplied by the hospital, since a commercial laundry pays taxes and is obliged to earn interest on its capital to set aside a fund for depreciation, to pay higher wages and to earn a profit. Therefore, the hospital which plans its own laundry carefully and is vigilant in its operation is likely to make for a greater success.

A fair average of space allowance for laundry purposes may be set down as 12 to 15 square feet for each occupied bed, which measurement would include laundry, receiving, sorting and distributing rooms. Laundries require considerably less space if the modern overhead trolley system for the transfer of material from machine to machine is used.

Often complaints will be heard from the hospital management of the shortage of store room space. Therefore the architect should consult the purchasing department about advantages of a plan for the purchase of merchandise in bulk.

Hospitals generally are compelled to have their own heating plants and steam is commonly employed; yet hot water is known to furnish the more pleasant form of heat, and the consensus of engineering opinion is that hot water plants, while a little more costly to install, are cheaper to operate.

In well-planned hospitals, there are always portions of the building which can be ventilated by natural means, but in most hospitals there are also sections where, in the absence of mechanical aids to ventilation, undesirable conditions can not be avoided. Ventilating ducts are expensive, especially if they must be flushed by electrically driven fans rather than by gravity, and the skill of hospital architects can nowhere be applied to greater pur-

pose than in the development of hospital plans which render mechanical ventilation almost, if not quite, superfluous.

Every hospital plan should conform to sound hygienic principles which are everywhere the same, but their application calls for hospital planning of one kind in cold countries, another in the tropics, for in one case the direct rays of the sun are a blessing, in the other an evil to be guarded against. The advantages of the sun exposure (in the temperate zone), of ample air space and of free ventilation are generally conceded, and it is the duty of the architect to conserve these and all other values which contribute to the health and welfare of hospital patients. Quiet surroundings, solaria, open-air porches, accessible out-door spaces on the roof or on the ground and separation or quiet rooms in suitable numbers are favourable factors.

Every hospital architect should be conversant with the appropriate equipment for the diagnostic and therapeutic purposes of the physicians, with a view of arranging suitable space for the installation of such equipment. Therefore, he must not only familiarize himself with every technical requirement of every branch of the service, but he should acquire so intimate a knowledge of the nature and value of technical procedures that he will be able to apportion space and equipment in the most advantageous way.

Facilities for the recreation of the resident or house staff have a bearing on medical efficiency, which the hospital architect will be unwise to ignore.

Dr. S. S. Goldwater, prominent hospital consultant, believes that medicine can be practised most effectually in a general hospital which, on the one hand, should not be too small to accommodate the various specialties, but which, on the other, should not be so large as to use up the time and strength of the specialist, either in an unwieldy clinical service or in administrative problems, or to necessitate the awkward physical separation of the clinical departments from each other, thus making intimate co-operation impossible, and indeed, making any co-operation whatever workable only through the use of cumbersome administrative machinery.

Dr. Goldwater questions whether the largest so-called medical centres do not, by their stupendous size and the very terms of their organization, tend to perpetuate rather than relieve or abolish the faults of specialization. If they do, those who are engaged in hospital planning are under a moral obligation to exert their influence in favour of the establishment of general hospitals of moderate size as the most suitable and effective instruments for the enhancement of medical efficiency.

NOTE: The illustrations of Hotel Dieu, Three Rivers; Hotel Dieu, Quebec; Vancouver General Hospital and Royal Victoria Hospital, Montreal are taken from "Four Centuries of Medical History in Canada" by Heagerty.

EUROPEAN STUDIES

From Photographs by F. Bruce Brown, M.Arch.

NUMBER LV



DETAIL FROM THE LOUVRE — PARIS



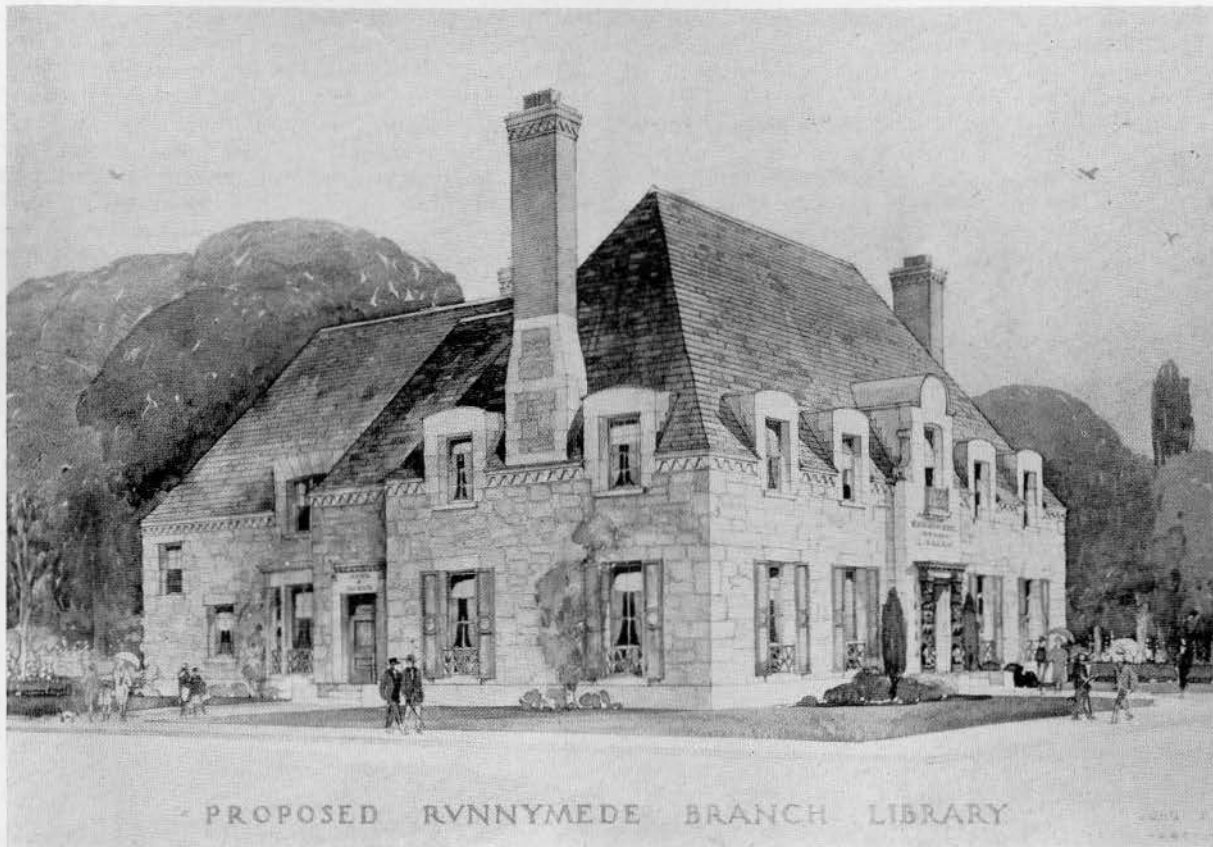
## EUROPEAN STUDIES

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NUMBER LVI



DETAIL FROM THE LOUVRE — PARIS



RUNNYMEDE BRANCH—TORONTO PUBLIC LIBRARY  
*John M. Lyle, Architect*

## The Fifty-First Exhibition of the Royal Canadian Academy

By H. POYNTER BELL

THE fifty-first exhibition of the Royal Canadian Academy, held in the galleries of the Art Association of Montreal, is a better one in many ways than the last exhibition which the Academy held in that city; but, though the general air of discouragement, which seemed evident then, has gone, the exhibition is not altogether a satisfying one. It looks as if the artists of Canada had such a poor opinion of the taste of Montreal that many of them think it hardly worth while to exhibit there. Education of public taste might well be one of the duties of the Academy, and no place is more in need of such education than Montreal. Further, the exhibition can not be considered as giving a good annual review of the state of art in Canada, which must surely be one of its proper functions. Works are exhibited by only little more than half of the members of the Academy—Academicians and Associates—and it is not without interest that one third of all the exhibitors are women.

As is usual in Canadian exhibitions, the greater part of the pictures on the walls are landscapes, some of which are little more than sketches. And also as usual the painters of the landscapes can be very roughly divided into naturalists, who concern themselves seriously with natural values, and for-

malists, in whose pictures values are more or less made subject to decorative ends. One of the leaders of the first class is Mr. Maurice Cullen, who shows only one picture this year. In this he keeps to his customary snow and dark water, with more open space and atmosphere than usual and a cheerful effect of rosy light on the distant hills. The larger of Mr. J. W. Beatty's two pictures, a winter scene in B.C., has a distant light of the same kind; it is the best picture that he has shown in Montreal for some years and has a good quality of space and colour. Mr. Homer Watson has three pictures in his familiar autumnal browns and, in contrast to these, a "Sketch in May" in tender greys and light greens—fresh but a little sad. Of Mr. Wilfred Barnes' two pictures, the study of afterglow light at Brattleboro is the more successful in his rather hard and strong manner; Mr. Loveroff and Mr. E. A. Dalton also show pictures in which strong colour is used effectively. There is an attractive study of morning haze and colour at Baie St. Paul in the better of Mr. Paul Earle's two exhibits, and of morning haze again, with some good trees in the foreground, by Mr. George Griffin, while Mr. Kilgour shows typical winter lighting and atmosphere in his two pictures, particularly in "Hurrying down to the Lowlands."



Mr. Pilot's two pictures of Newfoundland are not of his best; the one of "Lifting Fog" is the more interesting.

There are only few marine pictures. "A Breezy Day," by Mr. Horne Russell, is painted with all his sure understanding of the sea; in his "Seining the Weir" the trees and the poles on which the nets are hung make a very interesting sort of pattern behind the figures in the foreground. Two pleasant sea sketches are shown by Mr. George Fox.

Mr. Coburn has sent a picture of an unusual, long and narrow shape, in which a long panorama of distant hills is painted with much truth; his

Percival's of Bonsecours Market and Mr. Burgoyne's of a mountain torrent.

Among the landscape decorations of a more formal kind Mr. J. E. H. Macdonald's "Rain in the Mountains" is an outstanding example—a simple arrangement of forms and plane surfaces with some attractive colour. His "Hilly Farm" is unlike most of his work and its tone and colour rather suggest the work of some followers of the English Pre-Raphaelites. Mr. Harold Beament's "Rocky Headland" is a fairly ambitious and rather successful composition in browns. The "Cathedral Mountain" of Mr. Lismer is a rugged picture of rocks, in



THE SAGUENAY  
By Maurice Cullen, R.C.A.

usual sleigh with two horses is in the middle of one half of the foreground. Mr. James Graham's studies of ploughing and potato planting are well lighted landscapes with figures; Mr. Raoul Barre's "L'Etang" is a very effective little picture of a pool shaded by trees, with a girl bathing; Miss Alice des Clayes has sent from England a clever sketch of horses and a plough. Mr. G. A. Reid's large "Dark Canyon" is a sombre and rather formal landscape; he also has a good study of Canadian life in his water colour of a saw mill. The pictures by Mr. Herbert Palmer and Mr. Ross Perrigard do not show them quite at their best. Small pictures and sketches of interest are Mr. Hennessey's of houses in the hills of Quebec, Mr. Mickle's of fishermen's houses at Perce, Mrs.

which the clouds in the sky are hardly to be distinguished from the rocks below; it looks rather like a design for some new kind of mountain. Mr. A. Y. Jackson is inclined to repeat himself in his snow scenes, which are not very important; the tones and values in Mr. Andre Lapine's "Through the Woods" are very unconvincing, nor is its decorative value great, but Mr. Franz Johnston's "Gleam of Gold" is a decorative panel with pleasant colour. Mr. Albert Robinson and Mr. Andre Bieler have done better things than those that are in this exhibition. Though Mr. T. W. Mitchell hardly belongs in this following, he approaches their work in his two pictures, in which contrasts of colour and light are evidently exaggerated.

Portraits do not take so large a share of the wall space as in some recent exhibitions. The portrait of Mrs. Alexander Cameron by Mr. Wayman Adams of New York is one of the most striking pictures shown; a distinguished portrait in which the suppression of the surrounding details makes the figure stand out very vividly. Mr. Wyly Grier's portrait of Mr. F. A. Merrick is as good as his best, both as portrait and as picture; in his smaller portrait study of a girl sitting out of doors, the lighting is not quite convincing. Mr. Ernest Fosberry's portrait of his daughter is full of good painting; it is rather too imposing, too much like a

David does not worthily represent Mr. Jongers. A portrait by Mr. C. F. Comfort is a rather stiff study in buffs and greys; Mr. Chas. Macgregor's portrait of Mr. C. G. D. Roberts is of more interest for its subject than for its painting. Of the four portraits by Mr. Kenneth Forbes that of Miss Gweneth Wonham is the most alive and the best as a picture. Two portraits by Mr. Robin Watt, studies of heads by Miss Berthe des Clayes and Mr. de Grandmaison and two heads, rather in the primitive manner, by Mr. Holgate call for notice.

A striking picture is Mr. Charles Simpson's



WINTER, BOWEN ISLAND, B.C.

By J. W. Beatty, R.C.A.

state portrait for its subject and the division of tones in the background, right down the middle of the picture and of the figure, makes an uncomfortable effect. Two portraits are shown by Miss Stella Grier. Her big portrait of Mr. J. Geale Dickson is a clever picture, strong and consistent, but the smaller "Mother and Child" is better still—a bold, gay picture, with bright colour, which, if not a perfect success as an experiment, is one of the most attractive pictures in the exhibition. Both of Miss Marion Long's unnamed portraits are very interesting, particularly "Shadows," which is essentially a study in blocks of light and shade, strong and rather severe. "The Green Jar" is not so good in drawing but is very effective in light and colour. The portrait of the Hon. Athanase

"Chinese Lanterns," in which a well-placed figure of a little Chinese girl shares the interest with a pleasant effect of light on the orange colour of some "Chinese Lantern" pods in a jar and the orange and blue of the girl's dress. Mr. Randolph S. Hewton's conspicuous "Sleeping Woman" is a study of a nude figure, larger than life; it is strongly drawn, with hardly a pretence of flesh painting, and the surroundings of the figure take away from its value as a decoration. The interest of Miss Prudence Heward's life size women's heads, "At the Theatre," is chiefly technical.

"The Goose Family" by Mr. Frank Panabaker is a rather successful imitation of James Maris. Mr. Paul Caron has some water colours of city scenes in his usual manner. There are a number



of flower pictures in the exhibition; among the most successful of them are Miss Porteous' boldly painted Peonies, Mrs. Alexander's Hydrangeas and those by Mrs. Cutts, Miss Hagarty, Mrs. Luke and Miss Huddell.

Among the prints and drawings Mr. Herbert Raine's work is, as always, conspicuous. He shows two charming drawings of boats, a Belgian etching and three dry points. Other things of interest are

portrait head of General Wolfe. Mr. Laliberte shows some clever small figures and groups of figures and Miss Dinah Lauterman a figure "Le Silence du Tombeau"—imaginative and rather archaic in manner.

Architecture is only just represented, which seems surprising in view of the present importance of architecture, especially in Canada. The more notable of the fourteen drawings and photographs



PATRICIA, DAUGHTER OF THE ARTIST  
*By Ernest Fosbery, R.C.A.*

Mr. Lismer's reed pen drawings, Mr. Watt's chalk drawings of heads of children, Mr. Phillips' colour wood cuts, Mr. Beament's drawings, an etching by Miss Phyllis Armour and Mr. A. D. Patterson's drawing of the late Bliss Carman.

The most important works in the very small collection of sculpture are Mr. Emanuel Hahn's bold and strong head of Beethoven—a representation much more than a portrait—and Dr. Tait McKenzie's unflattering but probably very true

sent by only six exhibitors are Mr. W. S. Maxwell's perspective drawing of "Mashrak-El-Kazar," a building in the Indian Mohammedan style, with an Indian garden, to be erected in Chicago, and the photograph of Mr. J. M. Lyle's simple but dignified Gage Memorial Fountain for Hamilton, Ont. Mr. W. L. Somerville shows a drawing of a small parish hall in Toronto and Messrs. Perry and Luke show designs for houses in Westmount, comfortable looking houses which fit well into the architecture of the province of Quebec.



HOUSES IN THE HILLS, QUEBEC  
*By Frank Hennessey*



BEETHOVEN  
*By Emanuel Hahn, A.R.C.A.*



## By-laws of The Royal Architectural Institute of Canada

ADOPTED DECEMBER 28TH, 1929

### *Name and Objects:*

1. The name and objects of The Royal Architectural Institute of Canada are set forth in the Charter and these By-laws are to be interpreted in conformity therewith.

### *Component Societies:*

2. The Component Societies are as follows:  
The Province of Quebec Association of Architects—P.Q.A.A.;  
The Ontario Association of Architects—O.A.A.;  
The Manitoba Association of Architects—M.A.A.;  
The Alberta Association of Architects—A.A.A.;  
The Saskatchewan Association of Architects—S.A.A.;  
The Architectural Institute of British Columbia—A.I.B.C.;  
The Maritime Association of Architects—Mar.A.A.,  
and such other bodies as may be recognized by the Council of the Institute in accordance with section 4 (3) of the Charter.

3. Any Component Society may, by resolution of its members in accordance with its charter (if any) and by-laws, voluntarily withdraw from the Institute. The Council of the Institute may expel any Component Society for repeated failure to pay dues or for countenancing practices derogatory to the profession, upon a unanimous vote of the members of the Council representative of the remaining Component Societies. A Component Society which ceases to exist will be held to have voluntarily withdrawn from the Institute.

4. The Component Societies shall pay annual dues to the Institute, based on their membership of the financial year previous, the rate being fixed by the Council after ascertaining the desires of all the Component Societies on the matter; the decision shall be by, at least, a two-thirds majority of the Council. Dues are payable on or before March 1st in each year for the current calendar year.

### *Members:*

5. All members in good standing with a Component Society are members of the Institute and may append to their names the abbreviation M.R.A.I.C. This right lapses with loss of good standing in the Component Societies of the Institute; or in the case of the withdrawal from the Institute of the Component Society, or Societies to which a member belongs.

### *Fellows:*

6. The Council shall for the purpose of instituting an original body of Fellows, under the charter as amended in 1929, offer the Fellowship of the Institute subject to acceptance within two months, to all past presidents of the Institute and to past

presidents of the Component Societies in good standing with such bodies, also to those who had been nominated as Fellows prior to 1913.

7. Thereafter nominations for Fellowship shall be made by a Fellow supported by two other Fellows. The nomination paper must set forth the grounds—professional eminence, services to the profession, artistic ability, etc.—on which the claim to recognition is put forward, and be accompanied by a letter from the nominee stating his willingness to become a Fellow. These grounds shall be scrutinized by the Council who shall make such further enquiry as may be deemed necessary and, if satisfied, the Council shall announce the nomination to the Fellows, enclosing a ballot for return by a specified day, all correspondence in this connection being confidential. Confirmatory votes from an actual majority of the Fellowship of the Institute will be necessary to elect a Fellow. Nominations for Fellowship will not be in order unless the nominee is over thirty-five years of age and has practised as principal for ten years or held appointments of equal standing for a like period and is already a member of the Institute.

8. Upon his election, a candidate for Fellowship shall pay an entrance fee of fifty dollars and annual dues of twenty dollars to the Institute. The entrance fees shall be credited to capital account; the annual dues to current account. Fellows may append to their names the abbreviations F.R.A.I.C. Original Fellows under the 1929 amendment to the charter shall pay entrance fees and annual dues; Fellows nominated prior to 1913 are exempt from entrance fees.

9. The Fellows shall constitute an advisory body which may put its views before any General meeting, Council meeting or Executive Committee meeting for consideration and such action thereon as the Council may decide.

10. On ceasing to be a member in good standing of a Component Society, a Fellow shall be held to have resigned, but a Fellow may voluntarily retire any time. Failure on the part of a Fellow to pay annual dues for two years may be interpreted as resignation. The Council shall have discretion as to reinstatement.

### *Honorary Fellows:*

11. Fellows who have retired from practice, and any persons who have contributed by research, scholarship, public service or professional standing to the good of architecture in Canada, or elsewhere, are eligible for election as Honorary Fellows. Nominations may be confidentially made by any Fellow supported by five other Fellows, or by the President of the Institute supported in like manner, to the Executive Committee which shall make a recommendation to the Council in confidence and the Council shall vote on nominations for

Honorary Fellowships at their meeting previous to the annual meeting at which announcement of Honorary Fellowships (if any) will be made. Honorary Fellows may append to their names the abbreviation Hon. F.R.A.I.C. The Honorary Fellowship is held for life.

*Council:*

12. The Council of the Institute shall be composed of the representatives of the Component Societies. Societies having (40) forty members or less shall each be entitled to appoint two (2) members of the Council. Societies of over forty (40) members shall be entitled to appoint one (1) member of the Council for each additional forty (40) members, or fraction thereof. The quorum at the meetings of the Council shall consist of five (5) members present. The President, or in his absence the Chairman elected for the meeting, will have, in case of a tie vote, a casting vote. The Council shall elect the Officers of the Institute at a meeting held immediately after appointment announced at the annual meeting.

13. A regular meeting of the Council shall be held immediately after the annual meeting, and also at a date immediately previous to the following annual meeting and special council meetings may be held at the call of the President. One month's notice shall be given for all council meetings.

14. A letter ballot of the Council may be held on any business at the instance of the Executive Committee. The matter to be decided shall be clearly set forth with the Executive Committee's recommendation, or majority and minority recommendations, and communicated to all members of the Council by mail at least two weeks before the date set for the letter ballot. Letter ballots shall be addressed to the Executive Committee and the votes will be counted in the presence of the Chairman and at least two members.

*Officers:*

15. The Officers of the Institute shall consist of a President, two Vice-Presidents, an Honorary Secretary and an Honorary Treasurer.

*Executive Committee:*

16. The Executive Committee of the Council shall be composed as follows: The President, the Honorary Secretary, the Honorary Treasurer and those members of the Council residing in the same province as the President then in office. The Committee so constituted shall administer the affairs of the Institute, as directed by the Council. The quorum for the meetings of the Executive Committee of the Council will consist of three (3) members present. It will meet at the call of the President as often as the business of the Institute may require, and will report its proceedings to the Council.

*The Secretariat:*

17. The Honorary Secretary will act as Secretary at the general meetings and meetings of the Council.

18. The Executive Committee may appoint a paid Secretary who shall also act as assistant both to the Honorary Secretary and the Honorary Treasurer. The Executive Committee may authorize such staff as the Secretary may require. The Council shall determine the salaries of the Secretary and his assistants (if any).

*Management:*

19. The Council may, by resolution, delegate any of its duties to the Executive Committee except in a matter of change or addition to the by-laws or the election of Honorary Fellows.

20. Proxies properly certified by the Secretary of any Component Society may be given to its representatives, or to any member of Council attending any meeting of the Council to cast a number of votes equal to the legal representation of that society, as provided for in the charter. The proxies shall be for use at one meeting of the Council or adjournment thereof. In the case of a letter ballot, proxies shall not be used.

21. The Honorary Secretary (with the assistance of the paid Secretary) shall keep an accurate record of all the transactions at the annual meetings, and meetings of the Council and give notice of all annual and special meetings of the Institute and of the Council.

22. At all meetings the President, or in his absence, one of the Vice-Presidents, or in their absence, one of the members of the Council shall preside.

23. The Honorary Treasurer shall, on behalf of the Institute, receive all moneys. With the approval of the Council he shall deposit and invest the funds of the Institute in its name. All accounts, passed by the Executive Committee of the Council, shall be paid by cheques signed by two of the following: The President, the Honorary Secretary, the Honorary Treasurer. The Honorary Treasurer shall present a report of the finances of the Institute during the year ended on 30th December previous, verified by the Auditor at the annual meeting of the Institute.

24. A Chartered Accountant shall be appointed as auditor for the ensuing year by the Council at its first meeting after the annual meeting.

25. In the case of a member of the Council who may have died, retired or failed to act, it shall be incumbent upon the Executive Committee through the Honorary Secretary to communicate with the Component Society which such member of the Council represented pointing out the vacancy and requesting a new appointment.

26. The Council of the Institute has no power to discipline its members, but may call the attention of the Council of any Component Society to a case where such action may be in order in the interest of the profession at large as represented by the other Component Societies. The Council may also receive and transmit to the proper quarter complaints from a Component Society with respect to the conduct of a member belonging to another Component Society. Except on request by a Component Society and then only as with respect to hypothetical cases, the Council will not



record or express opinions on professional practice cases. The action of the Component Societies in such cases may be published in THE JOURNAL, Royal Architectural Institute of Canada.

27. The Council and the Executive Committee may appoint Committees to study and report back on any matters within the province of the Institute.

*Travelling Expenses:*

28. The Council may authorize the payment of travelling expenses of the President, the Honorary Secretary, the Honorary Treasurer and the members of the Executive Committee attending the annual meeting, special general meetings, meetings of the Council and of the Executive Committee of the Council, also of the travelling expenses of one delegate from each Component Society attending an annual meeting or a special general meeting. Such a delegate must have credentials from the Component Society which he represents, stating the number of votes he is authorized to cast at a meeting of the Council. By travelling expenses, is meant the actual transportation fares, Pullman, hotel and meal expenses.

*General Meetings:*

29. The annual meeting of the Institute shall be held in the month of February, at such place and dates as the Council may select. The Council shall lay before this meeting a report on the standing of the Institute. Fifteen members present shall constitute a quorum. The notice calling the annual meeting shall be sent by mail to all members at least one (1) month before the date fixed for the meeting.

30. The business of the annual meeting shall be transacted in the following order:

- (a) Reading of the minutes of the last annual meeting and of any special general meetings held;
- (b) Business arising out of the minutes;
- (c) Reports;
- (d) New business;
- (e) Miscellaneous matters.

31. Special general meetings of the Institute may be held at such times and in such places as the Council deem wise, notice of such meetings and of the business to be transacted being sent to all members at least two (2) weeks before the date set.

32. The Institute in annual or special general meeting assembled may appoint special committees to study and report to Council on any matters of interest to the profession at large.

*Publications:*

33. The Institute shall publish annually a list of Members, Fellows and Honorary Fellows with designation of the Component Societies to which they belong, and full style, title and address; also a calendar containing the constitution and by-laws of the Institute and of its Component Societies and such other material as may be appropriate with respect to its officers, committees, certificates,

forms and relations with other bodies, professional or educational.

34. The Institute shall cause to be periodically published THE JOURNAL, Royal Architectural Institute of Canada, and for such purpose at its first meeting in its year of office shall appoint an Editorial Board.

*Standing Committees:*

35. The Council shall at its first meeting in its year of office appoint the following Standing Committees:

- (a) The Standing Committee on Architectural Training on which each recognized School of Architecture in Canada granting a degree or diploma shall be represented, together with five (5) members or Fellows appointed by the Council of whom two (2) shall be members of the Council, one of these being a member of the Executive Committee;
- (b) The Standing Committee on Scholarships, consisting of six (6) Fellows and a member of the Executive Committee appointed by the Council;
- (c) The Standing Committee on Art, Science and Research, consisting of five members of whom one shall be from one of the four western provinces, one from the three eastern provinces, one from Quebec, one from Ontario and one a member in government employ at Ottawa;
- (d) The Standing Committee on Professional Usage, consisting of all the Presidents of the Component Societies and the President of the Institute as Chairman.

36. All Standing Committees shall report to the Council at the meeting previous to the annual meeting and their reports shall be embodied in the Council's annual report. The President of the Institute shall designate the Chairmen of the various Standing Committees, who shall act as Convenors and correspond with the members of their Committees.

*Amendment to By-laws:*

37. Proposals for new by-laws, or for amendments to existing by-laws may be made by any member of the Council; or by resolution of the Council of any Component Society and shall be addressed to the Executive Committee who will communicate them to the Council with their recommendations thereon. After allowing three months for interchange of views by correspondence, a letter ballot of the Council may be held, or the proposal may stand over till the next meeting of the Council as the Executive Committee may decide; but in either case, each Component Society must be informed of the proposal one month before such letter ballot or meeting of the Council. Two-thirds of the vote cast by a letter ballot shall decide. In the case of a Council meeting a majority shall decide.

*Repeal of former By-laws:*

38. All former by-laws are hereby repealed and rescinded.

## Activities of the Institute

Special Meeting of the Council of the Royal Architectural Institute of Canada, held on Saturday the 28th December, 1929, at two o'clock p.m., at the office of the Institute, 1410 Stanley St., Montreal.

*Present*—Messrs. Percy E. Nobbs, president, in the chair; W. S. Maxwell; Eugene Payette; G. M. West, honorary treasurer; and Alcide Chaussé, honorary secretary. Mr. I. Markus, secretary, was also present.

The following proxies were received and accepted: Ontario Assoc.: Five votes to Mr. G. M. West. Manitoba Assoc.: Three votes to Mr. P. E. Nobbs. Alberta Assoc.: One vote to Mr. Alcide Chaussé. Maritime Assoc.: Two votes to Mr. P. E. Nobbs.

With the votes of the five members present there was a total of sixteen votes to be cast at the meeting.

Communications from the Ontario Association of Architects and from the British Columbia Institute of Architects were read, suggesting certain changes

of the proposed by-laws with reference to the admission to fellowship.

It was moved by Mr. Eugene Payette and seconded by Mr. Alcide Chaussé that the new by-laws be adopted as prepared.

In amendment, it was moved by Mr. G. M. West and seconded by Mr. W. S. Maxwell, that the new by-laws be accepted, with the exception of that part dealing with the fellowship (Sections 6 and 7).

The vote for the amendment gave the following result—5 in favour and 11 against. The amendment was consequently declared lost and the main motion was declared adopted on the same division.

It was moved by Mr. Alcide Chaussé, seconded by Mr. Eugene Payette, and unanimously adopted, that the following clause be added to the by-laws:

*Repeal of Former By-laws.*

38. All former By-laws are hereby repealed and rescinded.

The meeting was then adjourned.

Meeting of the Executive Committee of the Council of the Royal Architectural Institute of Canada, held at the office of the Institute, 1410 Stanley St., Montreal, Quebec, on Saturday, December 28th, 1929, at 3.00 p.m.

*Present*—Percy E. Nobbs, president, in the chair; Alcide Chaussé, honorary secretary; Gordon M. West, honorary treasurer; Eugene Payette; W. S. Maxwell; and I. Markus, secretary.

*Reading of the Minutes*—The minutes of the meeting of the executive committee held on October 24th, 1929, at Montreal, were read and approved.

*New By-laws*—The honorary secretary reported that at a special meeting of the council held prior to this meeting, the third draft of the proposed new by-laws was submitted for approval and, after making a few minor changes, the council had approved of the new by-laws and declared them in force as from this date.

The secretary was instructed to publish the new by-laws in the January issue of THE JOURNAL, R.A.I.C.

*Fellowships*—The president and honorary secretary were requested to draft letters to be sent to former fellows of the Institute, also to past presidents of the Institute and of the Provincial associations, calling their attention to the new by-laws and inviting them to become fellows of the R.A.I.C.

The secretary was instructed to prepare a complete list of all members entitled to fellowship under the new by-laws.

*Official and Salaried Architects*—Mr. David R. Brown was present at the meeting and reported that, after securing the viewpoint of other members of his committee, he felt that it would be inadvisable for the Institute to take any definite action in the matter other than to submit certain recommendations, which he presented, to the Provincial associations. It was decided to send a copy of Mr. Brown's report to the members of

the council and the Provincial associations with a covering letter.

*Lectures on Hospital Planning*—A letter, dated November 27th, addressed to the president, was read from the Canadian Medical Association, advising that the resolution passed at the last annual meeting of the R.A.I.C. requesting that four lectures on hospital planning be included in the curriculum of medical courses, was considered at a meeting of their executive committee and, after considerable discussion, it was thought inadvisable in view of the crowded condition of the curriculum to urge the universities to make this addition. However, it was resolved that co-operation between the Royal Architectural Institute of Canada and the medical profession, with regard to hospital construction was highly desirable and that conferences between these bodies would be beneficial to all concerned.

Mr. Nobbs also reported that he had had an interview with Dr. Bazin, president of the Canadian Medical Association, on November 2nd, during which alternative action had been suggested directed towards the same objective, viz., the instruction of the medical profession in hospital requirements—It was thought advisable to encourage co-operation between the two professions with a view to technical articles on the subject appearing in the publications of both bodies. The ever-growing cost of hospital services to the public was also discussed with respect to the cost of buildings and equipment, and it was suggested that standards of efficiency and economy could be brought about appropriate to Canadian necessities.

*Duty on Foreign Plans*—Letters were read from Mr. Reilly, manager of the Canadian Construction Association, in which he advised that he had discussed the matter of foreign architects and engineers bringing plans into Canada with certain officials of the Department of National Revenue.



The executive secretary was requested to thank Mr. Reilly for his interest.

The president reported that he had a meeting on November 9th in Ottawa with Mr. R. W. Breadner, commissioner of customs, as a result of which he had prepared a memorandum, which was read. After some discussion the memorandum was approved. Copies of the memorandum are to be sent by the president to Mr. Breadner and Mr. Hynes, and by the secretary to the council.

*Representation from the Provinces to Next Annual Meeting*—The secretary informed the meeting that letters had been sent to the Provincial associations urging them to send at least one representative to the annual meeting. The only definite reply so far received was from the Saskatchewan Association of Architects, advising that Mr. F. P. Martin, of Saskatoon, would be present.

*Scholarships*—The president reported no further action in connection with the Rome Scholarship.

*Standard Forms of Contract*—A report was read from Mr. Moore in which he advised the executive that his efforts to arrange a conference with the special committee of the Canadian Construction Association with reference to the suggested changes in their standard forms of contract have been unsuccessful, and that he considered it inadvisable to continue negotiations and recommended that the Institute prepare its own contract forms.

The executive committee expressed its gratitude to Mr. Moore for his efforts in this connection, and authorized him to proceed with the preparation of contract forms on the "lump sum" and "cost plus" basis.

*Annual Meeting (Architectural Exhibition)*—A letter was read from the Province of Quebec Association of Architects informing the executive that two committees had been appointed, viz.: An exhibition committee with Mr. R. Findlay as chairman, and an entertainment committee with Messrs. E. I. Barott and H. S. Labelle as joint chairmen, to work in conjunction with the Montreal members of the executive committee of the Institute in arranging the programme for the 23rd annual meeting.

A letter was read from Mr. Findlay, chairman of the exhibition committee advising that arrangements were being made for an exhibition of the recent work of the architectural departments of the Canadian universities and the schools of art; also of three similar bodies in the United States. This exhibition will open on the first day of the annual meeting, February 21st, and will continue until March 9th, 1930.

It was decided to hold the twenty-third annual dinner on Saturday, February 22nd, at the Windsor Hotel, Montreal.

*Examinations*—The draft schedule of examinations, as submitted by Professor C. H. C. Wright, convenor of the special committee on examinations, was read, and it was decided to send copies of it to the Provincial associations with a letter explaining its objects. A committee, consisting of the president, honorary secretary and the secretary, was appointed to prepare the letter.

*Code of Ethics and Code of Competitions*—Some discussion took place in connection with Mr. Fryer's report on a code of ethics and code of competitions for the Institute, and it was suggested that this might include a schedule of fees for architectural services. It was decided to postpone

further consideration until the next executive meeting and circulate the report to the council and component societies in due course.

*Treasurer's Report*—The treasurer presented a statement of estimated income and expenditures to December 31st, 1929, showing a deficit of \$513.95. The treasurer was authorized to arrange a loan from the bank if found necessary.

*Budget for 1930*—The secretary was requested to prepare a budget of estimated income and expenditures for the year 1930, based on the pro rata contribution from the Provincial associations now in force.

*Request re Formation of Draftsmen's Association*—A letter from Mr. Donald Marsland, of Saskatoon, asking the opinion of the Institute with reference to the formation of a draftsmen's association in Canada was discussed, and the executive secretary was instructed to advise Mr. Marsland that the executive committee would look with favour on the formation of an association of draftsmen and architect's assistants whose chief purpose would be the raising of drafting-room standards. Such an objective could most likely be brought about through the initiative of the draftsmen themselves in the different provinces.

*R.I.B.A. Communications*—A letter was read with reference to the application for fellowship in the Royal Institute of British Architects by an architect in Montreal. It was decided to refer the matter to the P.Q.A.A. for consideration, the president being authorized to advise the R.I.B.A. by cable, if necessary.

*New Cover Design for "The Journal"*—Mr. J. P. Hynes reported through the executive secretary that he had engaged Mr. Thoreau MacDonald to prepare a new design at a cost not exceeding \$25.00. He further reported that an engraving had been made of this design and that it would be used beginning with the January, 1930, issue of THE JOURNAL. A press proof was submitted by Mr. Hynes and was approved by the executive committee.

*Miscellaneous Communications*—

From Ingenieria, requesting date and programme of annual meeting.

From Gnaiedinger-Wilson Limited, requesting a list of the members of the Royal Architectural Institute of Canada to be published in their Reference Book for 1930. The executive secretary was instructed to advise them that a list of the members for 1930 cannot be supplied before March and that, if such a list is printed before that date, it should be marked "List of Members, 1929."

From the Manitoba Association of Architects, giving information in connection with a successful action in court against a party practising as an architect in the Province of Manitoba without having the necessary license. The secretary was requested to secure a complete record of the judgment and to publish same in THE JOURNAL.

From the International Congress of Architects, enclosing rules and regulations of the International Exhibition of Architecture which is to take place in Budapest from September 7th to 22nd, 1930.

From the Province of Quebec Association of Architects, advising that a suitable reply had been sent to the Singapore Society of Architects in connection with their enquiry.

*Adjournment*—There being no further business, the meeting was adjourned at 10.45 p.m.

## Activities of Provincial Associations

### Architectural Institute of British Columbia

*Secretary*—E. W. TURNQUIST, 307 Shelly Building, Vancouver, B.C.

The Annual Meeting of the Architectural Institute of British Columbia was held in the Hotel Georgia, Vancouver, on Wednesday, December 4th. Following a luncheon in the hotel, the president, Mr. John J. Honeyman, of Vancouver, gave a resumé of the activities of the Institute during the past year. In closing his address, Mr. Honeyman paid a sincere tribute to the late Samuel Maclure, of Victoria, who passed away on August 8th.

A vote of thanks and appreciation was extended to the retiring president.

The honorary secretary, Mr. S. M. Eveleigh, in a brief address on matters of interest to the pro-

fession, discussed the new act of the Royal Architectural Institute of Canada.

In presenting the auditor's report, the honorary treasurer, Mr. J. Y. McCarter, emphasized the improved financial condition of the Institute.

Following the business of the meeting, the new council was elected for the ensuing year as follows: President, Andrew L. Mercer; vice-president, P. Leonard James; honorary secretary, S. M. Eveleigh; honorary treasurer, Robt. M. Matheson; councillors, Jas. A. Benzie, Jos. H. Bowman and John Y. McCarter; representative for University of British Columbia, Professor W. E. Duckering.

### The Manitoba Association of Architects

*Secretary*—E. FITZ MUNN, 903 McArthur Building, Winnipeg.

At a council meeting held on December 2nd last, a letter was received from the T. Eaton Company enclosing a pamphlet entitled "Tyndall mottled limestone," giving a very comprehensive review of the uses of Tyndall stone, which is quarried in Manitoba about 20 miles from Winnipeg. The T. Eaton Company had made very exhaustive tests of this stone as to crushing, heat, hardness, impact and absorption, and shows that this stone is greatly superior to imported limestones in all these respects.

The council passed a resolution of appreciation to the T. Eaton Company for their fine work in this connection and for the publicity they have given the matter.

A letter was received from the plasterers' union settling an old point of contention between plasterers and tile setters as follows:

"It is agreed that the plasterers shall prepare or plaster all walls and ceilings which are to receive tile, except the final setting bed, which shall be applied by the tile layers.

"All preparation work shall be done in a thorough and workmanlike manner, and it is understood and agreed that all walls and ceilings shall be plumbed, levelled and rodded under the direct supervision of the tile dealers."

It was decided to hold the annual meeting on Monday, January 20th, 1930.

### The Ontario Association of Architects

*Secretary*—R. B. WOLSEY, 350 Bay St., Toronto

The council of the Ontario Association of Architects held its December meeting at the Chateau Laurier, Ottawa. Mr. A. H. Chapman presided, and the following members were present: Messrs. C. Barry Cleveland, C. E. Cyril Dyson, Allan George, E. L. Horwood, H. E. Moore, L. Fennings Taylor and Gordon M. West.

The council entertained the Ottawa members at luncheon, and later were the guests of the Architects' Club at dinner.

The president reported that he expected in a few days to be able to arrange an interview with the attorney-general with regard to legislation, which was not previously introduced on account of pressure of business at the end of the session. Mr. J. P. Hynes was added to the legislative committee.

The subject of "Irregular Competitions" occupied the attention of the council, arising from the conditions under which sketch plans were advertised for by the Chatham Board of Education, and several members of the association took part, resulting in the following resolution being adopted:

"That the council, after considering a complaint of the Windsor Chapter in regard to the conduct of a competition for a school in Chatham, take the following course of action:

"1. That the committee on conduct of competitions be requested to place before the council at the earliest opportunity suggested revisions of the code for the conduct of competitions.

"2. That a committee be appointed to interview the Minister of Education and suggest that the regulations governing boards of education be changed to provide that boards may employ an architect to prepare preliminary sketches and estimates for proposed new school buildings without having first to get the approval of ratepayers.

"3. That a committee be appointed to advise all boards of education throughout the province of the benefits of conducting competitions on a proper and fair basis such as is suggested by the O.A.A. and that a copy of the revised code be sent them.

"4. That the council express its intention to enforce disciplinary measures on members of the



association who take part in competitions contrary to the association's code."

Messrs. Chapman, Dyson and West were appointed a committee to send out letters to school boards and enclose copies of the code of competition approved by the O.A.A.

The following were elected members of the association: J. E. Evans, A. G. Elton, A. M.

Taylor, of Toronto; and R. M. Thompson, G. B. Colthurst, G. F. Diehl, J. E. Trace, H. A. O'Dell, D. C. Winter, B. Dangerfield, A. J. Lothian, G. A. McElroy and D. N. McIntosh, of Windsor. Associates: Jack Ryrie and Georg Nielson, of Toronto.

It was decided to hold the general meeting of the association at Toronto on Friday, February 14th.

#### OTTAWA CHAPTER O.A.A.

*Honorary Secretary*—B. EVAN PARRY, Federal Department of Health—Ottawa

The annual dinner meeting of the Architects' Club of Ottawa was held in the Chateau Laurier on Saturday, December 14th, at which the guests of honor were members of the council of the Ontario Association of Architects.

The election of officers for 1930 resulted as follows: President, L. Fennings Taylor; 1st vice-president, W. J. Abra; 2nd vice-president, C. J. Burritt; executive council, A. J. Hazelgrove, E. E. Temple and H. J. Morin; hon. sec-treasurer, B. Evan Parry.

Mr. Taylor, who was in the chair, expressed his appreciation of the members' decision to re-elect him. He felt very much honored, but he was particularly pleased to be associated with the men who had been elected to the other offices. Mr. E. L. Horwood, past president of the club, welcomed the Toronto members of the council of the Ontario Association of Architects. Mr. T. W. Fuller, chief architect, Public Works Department, said that the Ottawa architects appreciated fully

the efforts of the association in their endeavours to advance the interests of architecture and architects. He was pleased to be able to speak for the government architects in this respect.

Responding for the visitors, Mr. Alfred Chapman, president of the Ontario Association, spoke of the work of the organization and stressed the efforts to raise the standards of architectural practice in the province. Mr. Allan George, chairman of the Toronto Chapter, followed, referring gracefully to the camaraderie of the local club. City beautification was touched upon in a forceful manner by Mr. Noulan Cauchon, chairman of the Ottawa Town Planning Commission. Other speakers were Herbert E. Moore, R. B. Wolsey, G. M. West, C. Barry Cleveland, Ernest Fosbery R.C.A.

In the afternoon a meeting was held between representatives of the chapter and the council of the Ontario Association of Architects, at which mutual problems were discussed.

## NOTES

Meetings of the council and executive committee of the Royal Architectural Institute of Canada were held in Montreal on Saturday, December 28th, 1929.

\* \* \* \*

Andrew L. Mercer, of Vancouver, was elected president of the Architectural Institute of British Columbia at the recent annual meeting of that body held in the Hotel Georgia, Vancouver.

\* \* \* \*

William Frederick Gardiner, architect, of Vancouver, has recently left for a three months' holiday in England and the Continent.

\* \* \* \*

Messrs. Shorey & Ritchie, architects, of Montreal, have moved their offices from 1158 Beaver Hall Square to 2048 Union Avenue.

\* \* \* \*

J. D. Viau, architect, of Montreal, was recently elected mayor of the city of Lachine for the third consecutive term.

\* \* \* \*

The five-day week for building trades craftsmen is rapidly being adopted in many parts of the United States. According to a recent report, over thirty per cent of the men employed on building construction are now enjoying the five-day week.

\* \* \* \*

The Manitoba Association of Architects has just successfully concluded an action in the court against a party for practising as an architect in the Province of Manitoba without having the necessary license.

The plans prepared by the party in question did not bear the word "architect" but were signed "Plans Prepared By \_\_\_\_\_."

\* \* \* \*

The Association of Architects, Surveyors and Technical Assistants (an organization of salaried architects, etc., in England) have recently issued an Architects' and Surveyors' Pocket Diary for 1930 which contains professional, technical information, including surveyors' tables, technical memoranda, professional societies, prizes, courses of study, etc., district surveyors in London, R.I.B.A. allied societies overseas, etc. The price of this diary is 2s. 8d. Copies can be obtained by writing direct to the Secretary, Association of Architects, Surveyors & Technical Assistants, 26 Buckingham Gate, Westminster, S.W. 1, England.

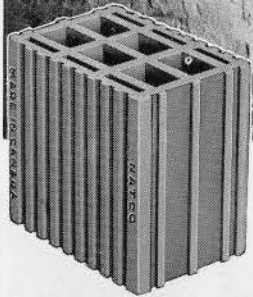
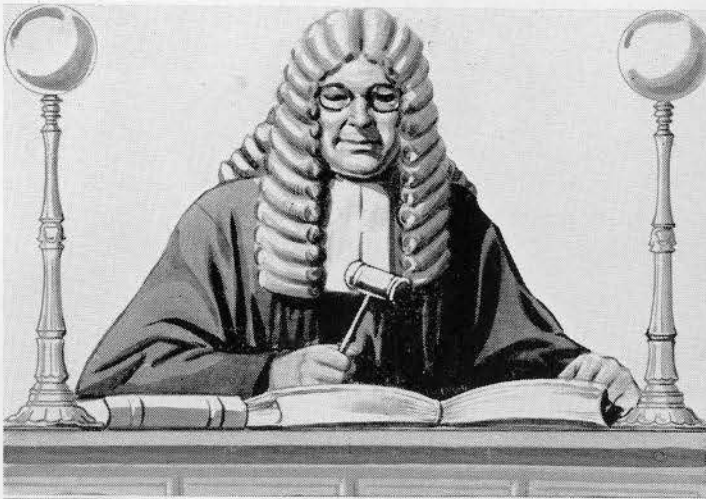
\* \* \* \*

The C. A. Dunham Company Limited announce the appointment of Mr. G. Lorne Wiggs, B.Sc., A.M.E.I.C., as manager of their Montreal office to succeed the late Mr. A. Castello, who passed away recently in Montreal after occupying the position as manager for the past ten years.

\* \* \* \*

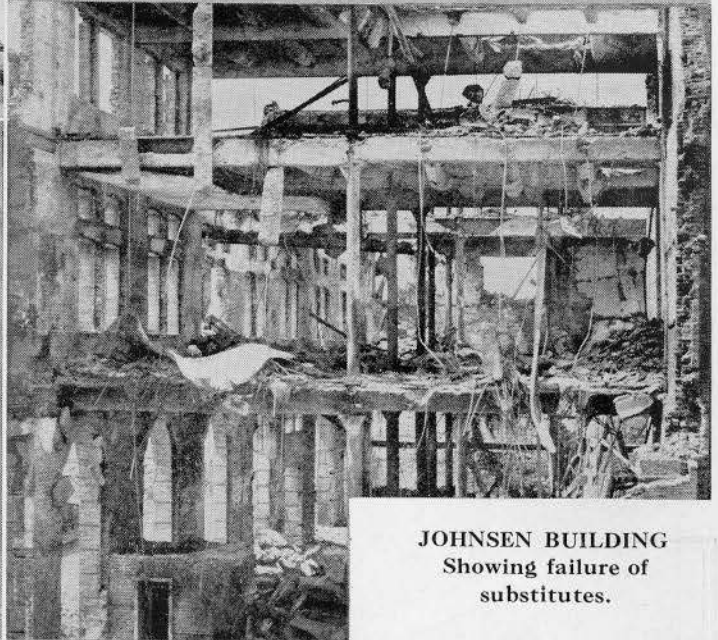
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## BOOKS REVIEWED

**PUBLISHERS' NOTE.**—We wish to remind our readers that any books reviewed in these columns, as well as any other Architectural book, can be secured through the Journal of the R.A.I.C., at the published price, carriage and customs duties prepaid.

**YEAR BOOK OF THE ARTS IN CANADA.** Edited by Bertram Brooker. Published by the MacMillan Company of Canada. Price \$5.00

Mr. Brooker, well known for his critical articles on "The Seven Arts," published in the Southam newspapers, has attempted in a most ambitious manner to review in one volume the art activities in Canada during the past year. In this difficult work, he has had the able assistance of such men as:

Carroll Aikins	William Arthur Deacon
Augustus Bridle	Pelham Edgar
Merrill Denison	Frederick B. Houser
Fred S. Haines	Arthur Lismer
Campbell McInnes	Marius Barbeau
Eric R. Arthur	Emanuel Hahn

The volume is divided into four sections:

First—"When We Awake"—A general introduction by the author.

Second—The Review Section—Including articles on architecture, sculpture, painting, literature, music and drama.

Third—An original section containing contributions from Will E. Ingersoll, Bliss Carman, Wilson MacDonald and many others; and

Fourth—A selection of plates illustrating many of the outstanding works produced in Canada during the past year.

Professor Arthur's article on architecture in Canada is not as optimistic as it might have been; on the contrary, he ends his review with an expression of his belief that it will take a thousand years to develop a national style in Canada, but he does see a light in the west over a grain elevator. While it may be difficult to establish a national style, there is no denying the fact that great strides have been made in the progress of architecture in Canada during the past few years. This, I believe should be emphasized so as not

to leave the layman with a feeling that architectural development in Canada is behind the times.

We cannot refrain from complimenting Mr. Brooker and all those connected with him in the printing of his book. It is most artistic in its presentation, and the title page, cover, paper, binding and typography are excellent. We are indeed glad to note that the volume has been entirely produced in Canada.

There is a definite place for an annual review of this kind, and it is to be hoped that the author and the publishers will receive sufficient encouragement to publish a similar volume each year.

The book is 7" by 10" in size and contains 305 pages.

—I.M.

**WROUGHT IRON IN ARCHITECTURE.** By Gerald K. Geerlings. Published by Charles Scribner's Sons. Price \$7.50

This volume is a companion to the book by the same author entitled "Metal Crafts in Architecture," which was reviewed in the columns of THE JOURNAL several months ago. In his latest book, Mr. Geerlings deals exclusively with wrought iron—its history, design and craftsmanship. He has been successful in gathering together a large number of photographs of fine examples of wrought iron-work covering nearly all countries. The illustrations of the work of such master craftsmen as Edgar Brandt and Samuel Yellin are especially interesting.

With a marked tendency towards the increased use of wrought iron in modern buildings, architects ought to be thoroughly conversant with the material in order that they may be able to design in an intelligent and economical manner. Mr. Geerlings has compiled a great deal of useful information gained from visits to the shops of famous craftsmen, and his well-written book gives one a good working knowledge of the subject of wrought iron and its decorative possibilities.

The book is highly recommended and should be a part of every architect's library. It is 14" x 16" in size and contains 200 pages.

—I.M.

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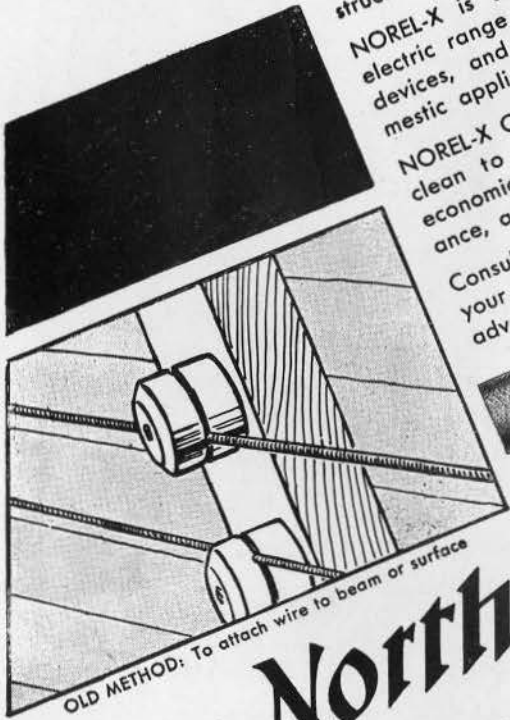
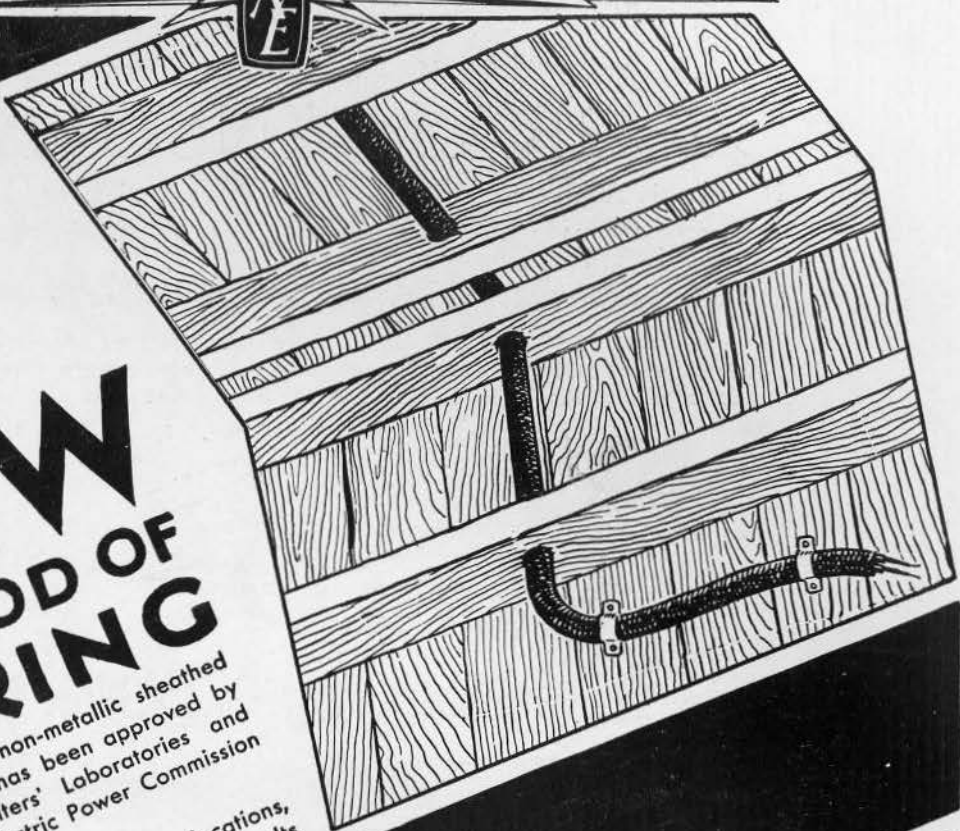
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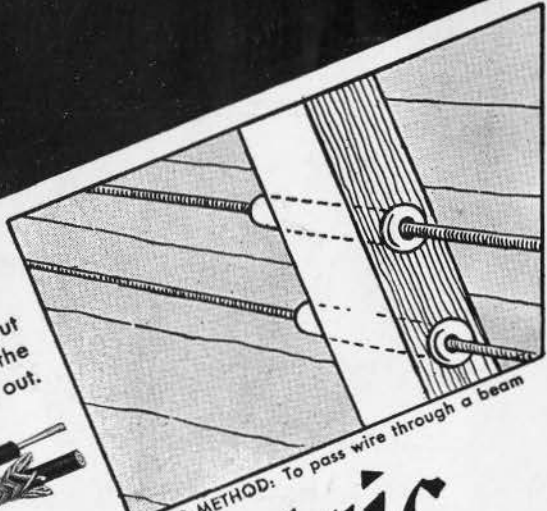
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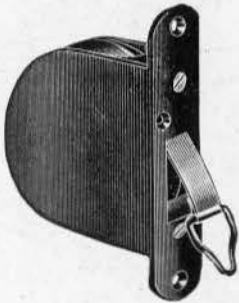
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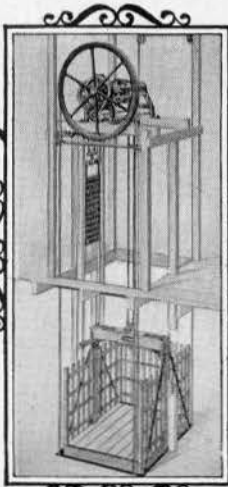
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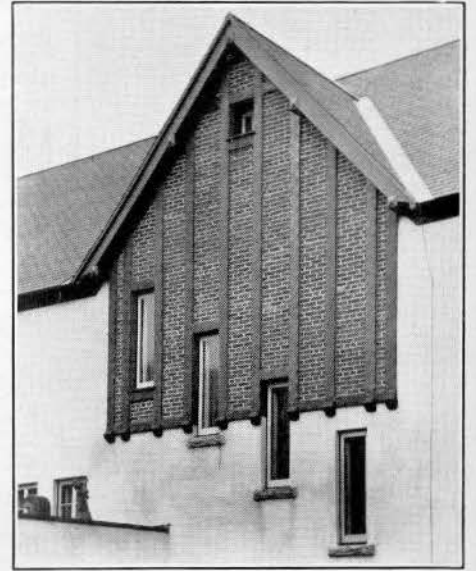
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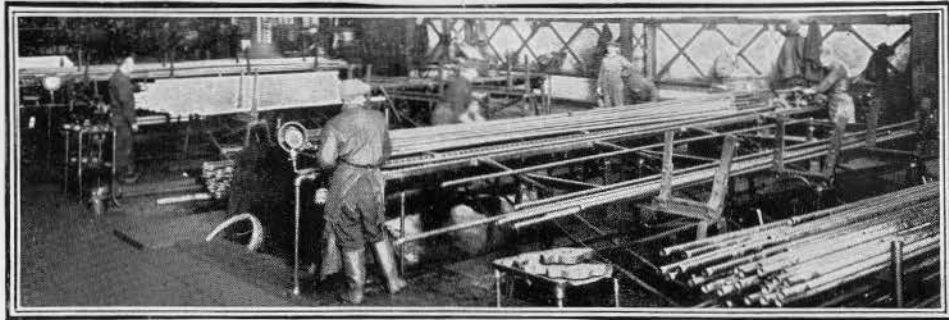
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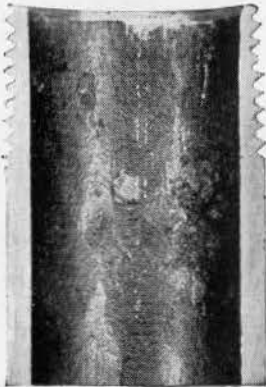
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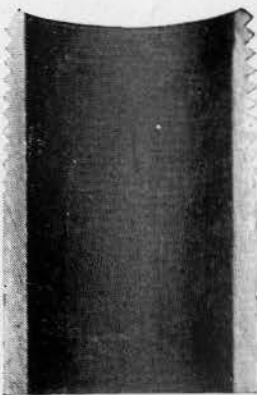
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 Process*



**S**TELCO scale free butt weld pipe is thoroughly tested before it is allowed to go out under the STELCO name. Above is illustrated one of the severe tests—water at a pressure of 700 lbs. per square inch is forced into each length. It shows leaks up instantly and is four to five times the load which the average pipe is called upon to carry—yet not an inch of pipe leaves our works until it has passed this rigid test.

STELCO is “scale free,” of course, and our exclusive cold straightening process ensures absolutely straight and true pipe.

Stelco improved couplings make the operators’ job easier and guarantee accurate fitting and tight joints.



*Interior view of pipe put  
 through the Scale Free  
 Process*

## THE STEEL COMPANY OF CANADA, LIMITED

HAMILTON - EXECUTIVE OFFICES - MONTREAL

SALES OFFICES: HALIFAX, ST. JOHN, MONTREAL, TORONTO, HAMILTON, WINNIPEG, VANCOUVER  
 WORKS: HAMILTON, MONTREAL, TORONTO, BRANTFORD, LONDON, GANANOQUE





Architect—Herbert Horner

Gen. Contractor—Dickie Construction Co.

MARBLE treatment in the lobby of the National Assurance Company's new building, Toronto. The Pilasters in French Escallette, counter top, door and newel post in Italian Black and Gold, dado work in Botticino and Escallette trimmings, floor in French Granite D'or with border of Breche D'Alet. All marble supplied and erected by

## Geo. Oakley & Son, Limited

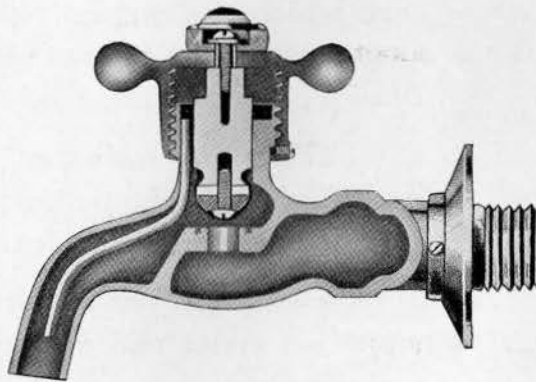
Office: 278 Booth Ave. TORONTO Marble Mills: 355 Logan Ave.

## The "NEVER-DRIP" Faucet

### DRIPPING FAUCETS OBSOLETE

Don't trifle with profits—and by this we mean don't install faucets that may, in a few weeks, drip and leak and make necessary an expensive "service" call.

The new patented "Never-Drip" faucets, made in Canada, have made all old-fashioned faucets obsolete. Each is positively guaranteed, given fair treatment, to remain dripless.



GUARANTEE

"Never-Drip" Faucets are guaranteed to give reliable and efficient service—and any faucet found defective due to workmanship or material will be replaced.

"Never-Drip" Faucets are supplied by the T. Eaton Company, Limited and the Robt. Simpson Co. Ltd. or apply direct to

### WASHER NEVER WEARS OUT

"Never Drip" Faucets NEVER DRIP. They simply can't leak. The washer never wears out because there is no wear on it. The operating thread is on the outside—not where it is in constant contact with the water. There is no packing to wear out in the "Never Drip."

Install these unfailing faucets on every job. The line is complete. Ask your jobber to show you a "Never Drip" or write us direct for information and prices.

## KONDU MFG. COMPANY LTD.

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## Give people what they want!

**T**HERE is no doubt about it, people want the comfort and convenience so readily obtainable in a "Red Seal" home. During the past year more houses and more apartments were wired to the "Red Seal" standard than ever before. Builders have found it profitable to adopt up-to-date wiring.

The "Red Seal" plans are yours for the asking—write or telephone, Electric Service League, 302 Excelsior Life Building. (ELgin 4937) or

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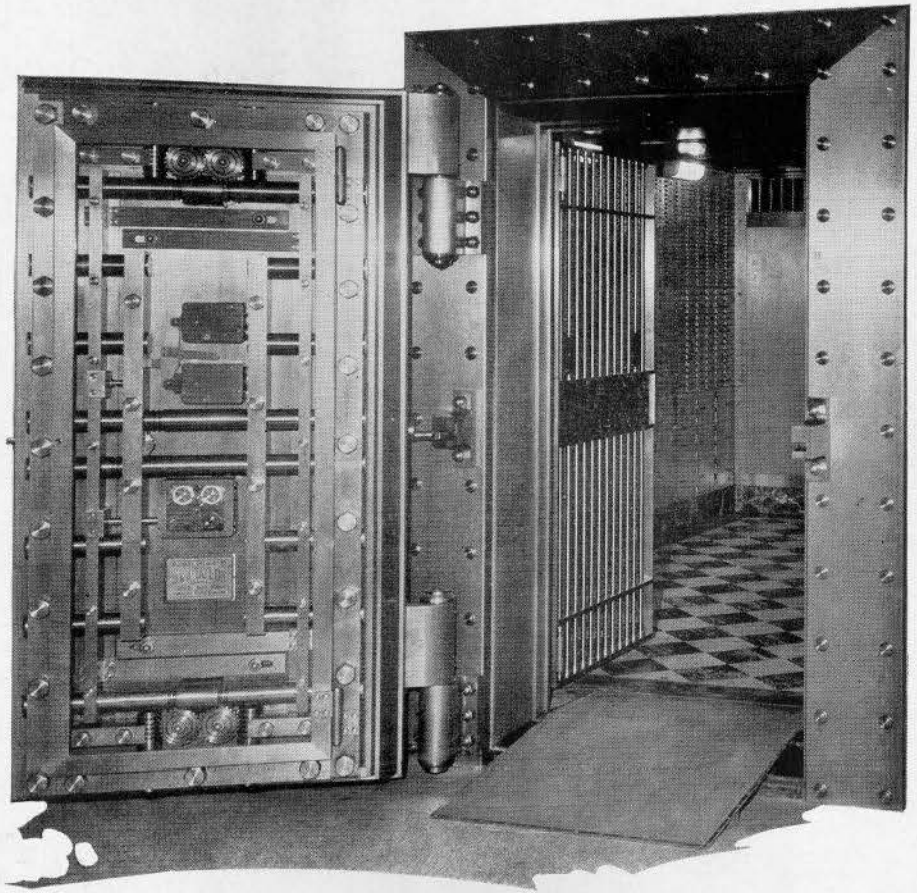


This is the "Red Seal" which designates houses or apartments wired to the "Red Seal" standard. It helps you to sell or rent houses.



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*When  
“Big  
Business”  
Chooses  
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**T**HIS Taylor installation for Chartered Trust and Executor Co., thoroughly modern and efficiently planned, is typical of the type of installation being adopted by many Trust Companies and Financial Houses.

Complete equipment includes: 10-Ton Door, Grille Gate and Safety Deposit Boxes. These, with all outside and inside steel panelling are all beautifully polished natural steel finish.

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

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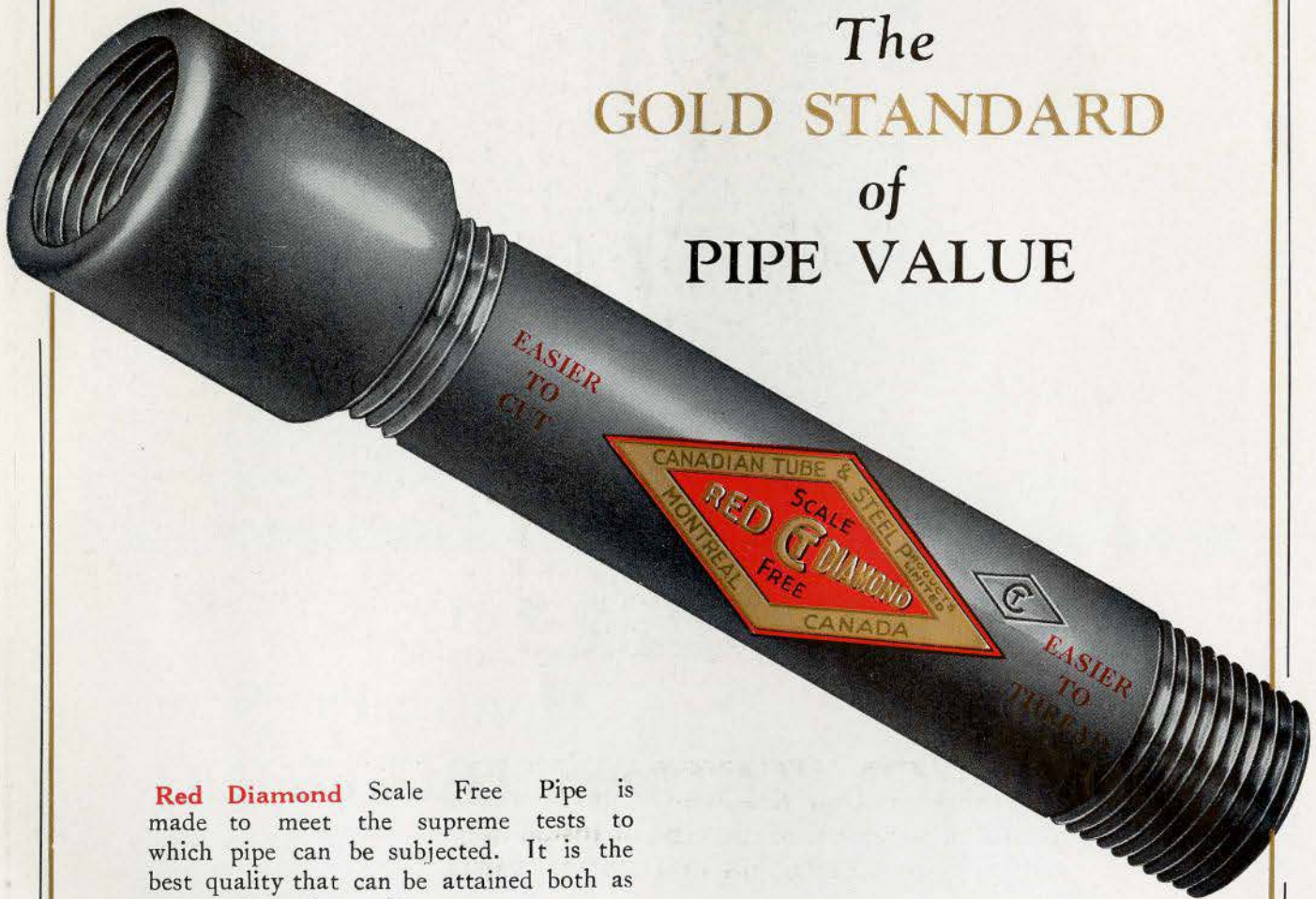
WINNIPEG  
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*“A Real Safe — Not a Pretense”*

# Red Diamond

## SCALE FREE PIPE

The  
GOLD STANDARD  
of  
PIPE VALUE



**Red Diamond** Scale Free Pipe is made to meet the supreme tests to which pipe can be subjected. It is the best quality that can be attained both as to material and manufacture.

At every stage and process it is minutely inspected. Every length of **Red Diamond** pipe is tested to 700 lbs. per sq. in. hydraulic pressure. Every length bears the **Red Diamond** label. On sizes 1½ inch and smaller a metal tag in the same colors is attached to each bundle.

Insist on **Red Diamond** from your jobber.

*We also manufacture  
Nipples and Couplings,  
black and galvanized,  
in all sizes.*

**CANADIAN TUBE AND STEEL PRODUCTS,  
LIMITED**

Works at Lachine Canal, Montreal, Quebec





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*Now open* - - - Montreal's New  
**DOMINION SQUARE BUILDING**

WHICH IS EQUIPPED WITH  
**Eight High-speed Gearless  
WESTINGHOUSE-TURNBULL  
ELECTRIC PASSENGER ELEVATORS**

*Automatic stopping at floors*      *Automatic opening of doors*

THE TURNBULL ELEVATOR COMPANY, LIMITED

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Silent...Sanitary  
Easy to keep clean**

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This flooring may be obtained in practically any desired color combination or pattern. Architects and interior decorators are finding it the ideal floor for carrying out the decorative theme of the whole interior.

We are responsible for the laying of all Dominion Rubber Tile Floors, all installations being made by our own trained men. Suggestions and estimates will be furnished upon request.

**DOMINION RUBBER COMPANY LIMITED**  
HEAD OFFICE - MONTREAL



**DOMINION RUBBER  
TILE FLOORING**

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The Royal Architectural Institute of Canada

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*Twenty-third*  
GENERAL ANNUAL MEETING

MONTREAL

FEBRUARY 21st and 22nd, 1930

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THE TWENTY-THIRD GENERAL ANNUAL MEETING of THE ROYAL ARCHITECTURAL INSTITUTE OF CANADA will be held at The Windsor Hotel, Montreal, Que., on Friday and Saturday, the 21st and 22nd of February, 1930.

The business of this meeting will be as follows:

1. Meeting of the (1929) Council.
2. Sessions of the General Annual Meeting.
  - (a) Routine business;
  - (b) Reports;
  - (c) Miscellaneous matters.
3. Meeting of the (1930) Council for the election of officers and other matters.
4. Annual Dinner.

ALCIDE CHAUSSÉ  
*Honorary Secretary.*

1410 Stanley Street  
Montreal, Que., 20th December, 1929.

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In conjunction with the Annual Meeting, the Province of Quebec Association of Architects has arranged for an Exhibition of recent work of the Architectural Departments of the Canadian Universities and Schools of Art, also of similar Institutions in the United States.

This Exhibition will be held in the gallery of the Art Association of Montreal and will be open from February 21st to March 9th, 1930.

Members of the Institute are invited to be present.