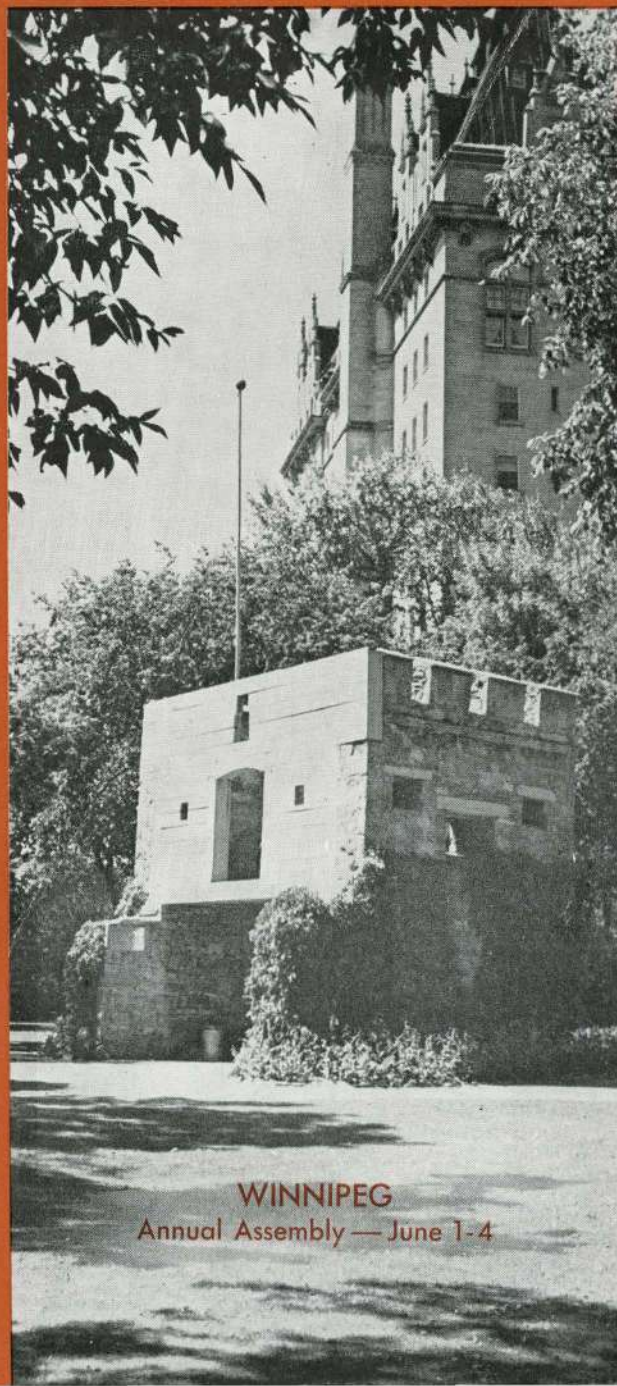


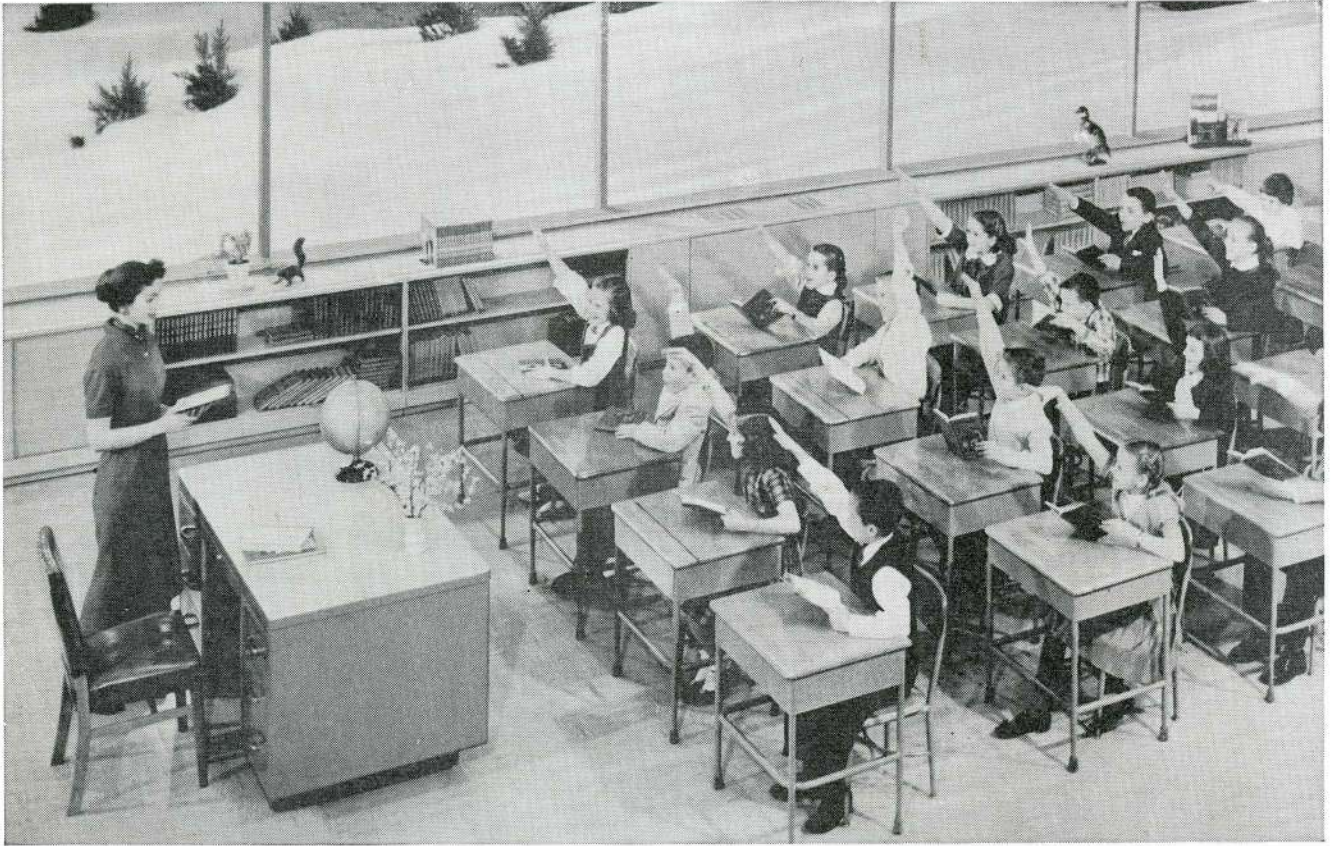
ROYAL ARCHITECTURAL INSTITUTE OF CANADA JOURNAL

APRIL 1960

ROYAL ARCHITECTURAL INSTITUTE OF CANADA
INSTITUT ROYAL D'ARCHITECTURE DU CANADA



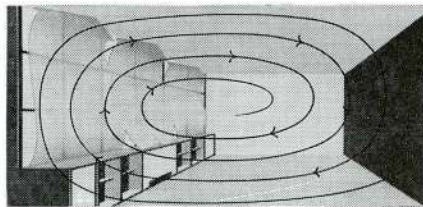
WINNIPEG
Annual Assembly — June 1-4



Protect these children from window downdraft...stale-air spots...sleepy areas...in your next classroom design!

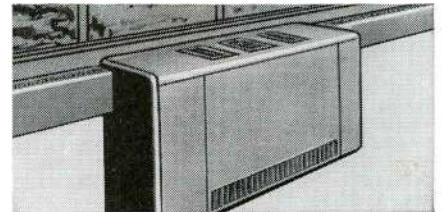
Specify Trane Unit Ventilators with KINETIC BARRIER ACTION! How will your classroom work when the painters move out and the children move in? Will they get essential room-wide ventilation? You can ensure a perfect "Climate for Learning" with the radically different TRANE UNIT VENTILATOR. Long extension arms . . . neatly doubling as bookshelves . . . spread the entire length of the window area or wall. A constant, fan-powered KINETIC BARRIER rises over the windows. Positively stops window downdraft. Gives ideal circulation within the room. Banishes stale-air spots and areas of excess heating that make children sleepy, inattentive!

Trane Unit Ventilators with KINETIC BARRIER extensions give unique, perfect ventilation for classrooms. Send for complete information. Compare the constant-flow TRANE principle against stop-and-go units. And inquire about the 16mm. sound film "CLIMATE FOR LEARNING" in colour: contains valuable information for you and your clients. Write your nearest Trane Branch, or direct to:



CONTINUOUS, ROOM-WIDE VENTILATION. Note how the air-flow from the extension arms joins with that from the central unit to provide a complete sweep of the room. Air movement is gentle, firm, *continuous!*

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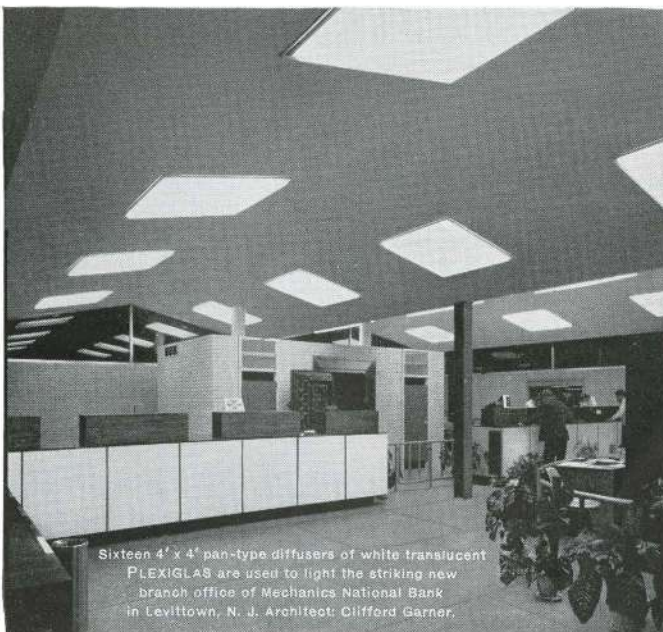
COMPANY OF CANADA, LIMITED,
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manufacturers of equipment for
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PLEXIGLAS

...for lighting that stands out and stands up



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Handsome buildings deserve the *best* in lighting, and they get it when lighting equipment includes diffusers or lenses made of PLEXIGLAS® acrylic plastic. PLEXIGLAS provides highest efficiency in transmission and diffusion. It is rigid, with a smooth, easily cleaned surface. Above all, it is a *durable* material—highly resistant to breakage, and free from discoloration even after years of exposure to fluorescent light.

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Mono Lasto-Meric* is formulated from Tremco-developed *natural 100% liquid polymers*. The basic ingredient is not a solid such as a butyl or vinyl. Therefore, it does not need to be modified with oil, etc., for adhesion, workability and long life. The desired characteristics of exceptional adhesion and enduring elasticity are an inherent and permanent part of the basic polymer. They are not attained through an ingredient that will migrate or disappear with time as is the case with conventional sealants. That "100% LIQUID" is the basic and important difference in TREMCO MONO LASTO-MERIC. *TM

MONO LASTO-MERIC 1-part 100% liquid polymer sealant is the latest development of the Tremco Research Center. It is definitely a major "break-thru" in curtain wall sealant advancement, and fills a long-felt vital need in the construction industry. Check these new advantages:

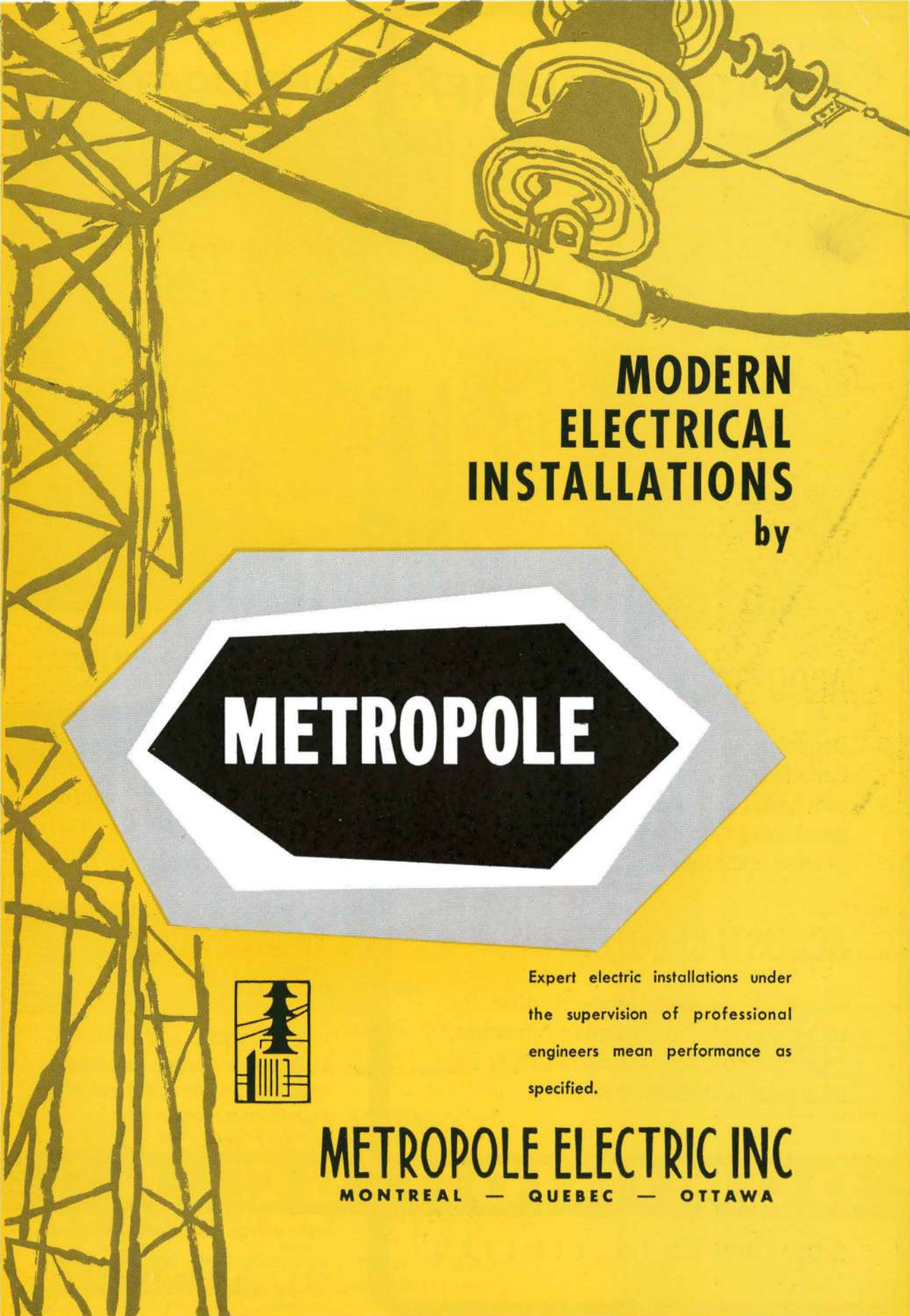
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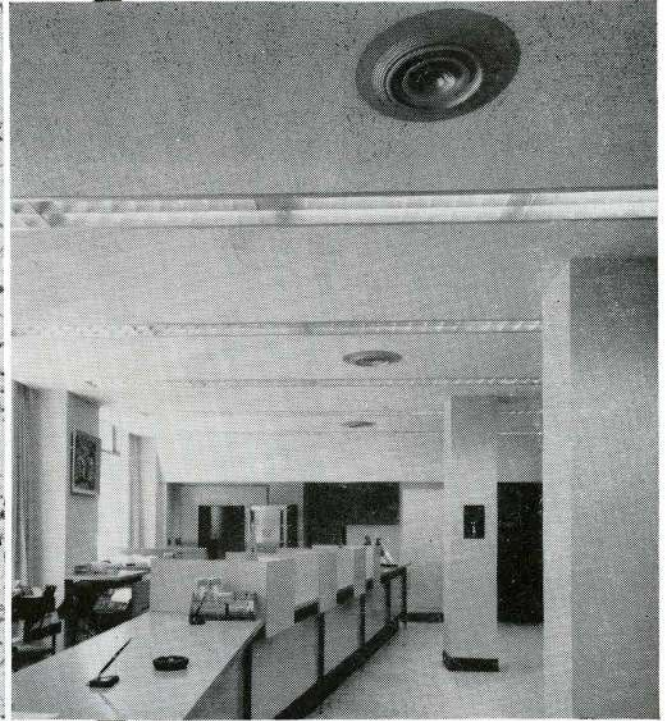
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- SMART
- HANDSOME
- DISTINCTIVE
- SECURE
- EFFICIENT
- SERVICEABLE

and which ever word you choose it can be applied
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FOR ALL THAT YOU WANT IN A LOCKER

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- *fully flush door*
- *maximum storage protection*
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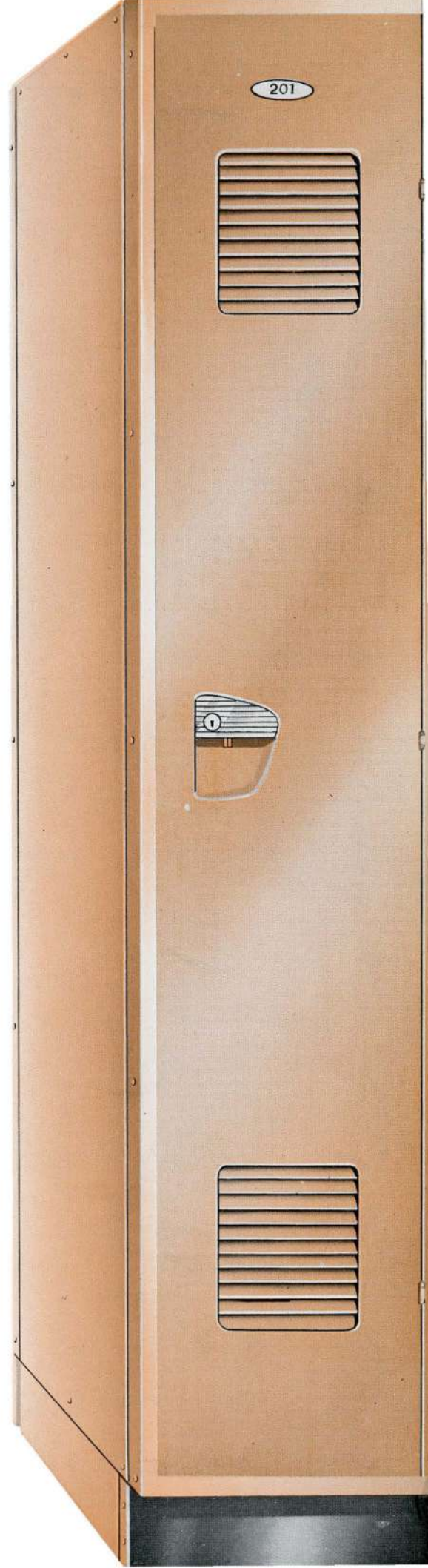
Each a good reason for specifying Westeel's T57 Locker.

See back of this page for additional styles of lockers.

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Choose the word you want to describe your ideal building

- SMART
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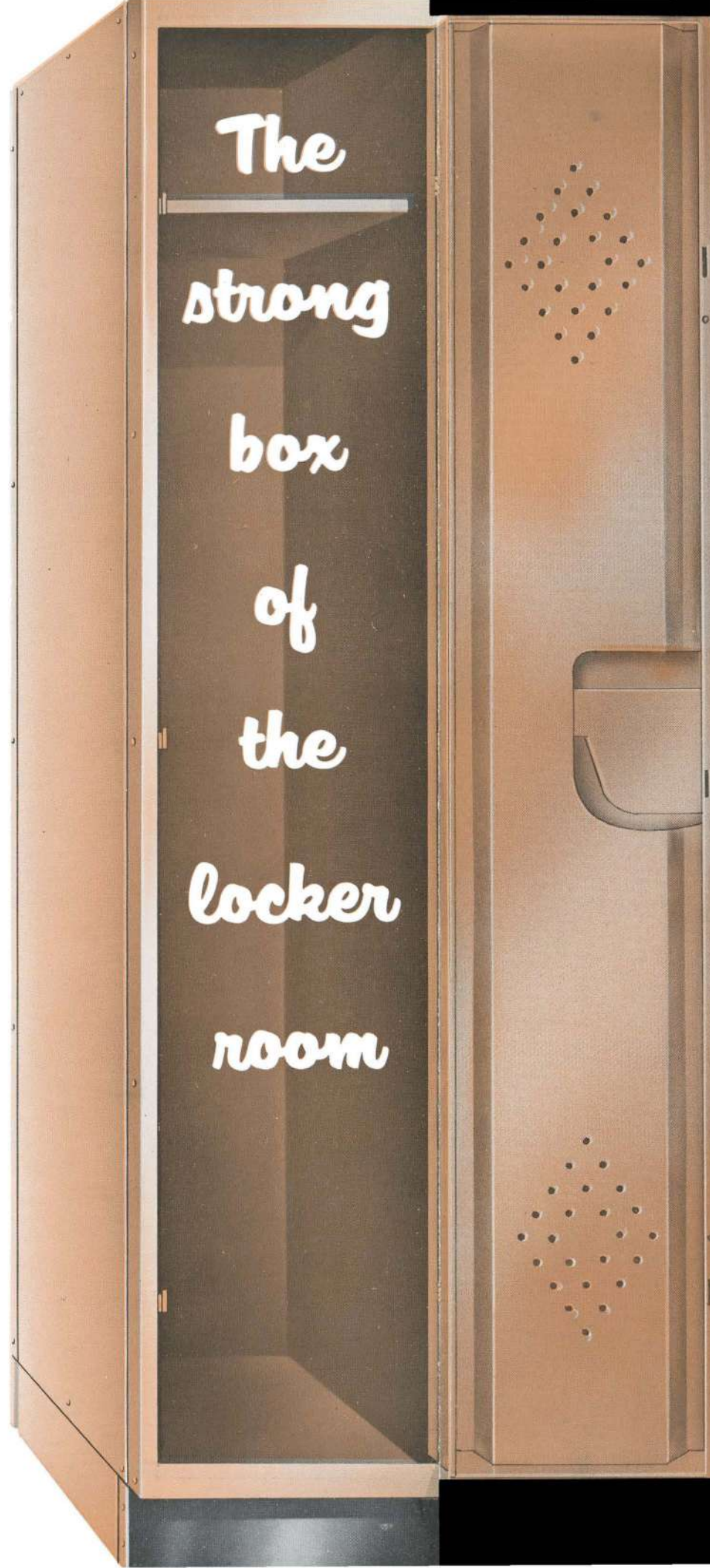
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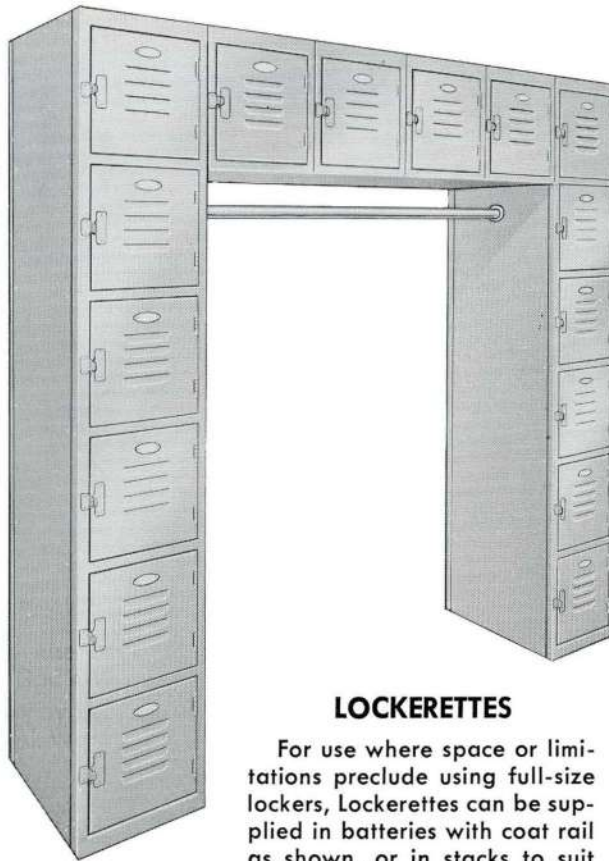
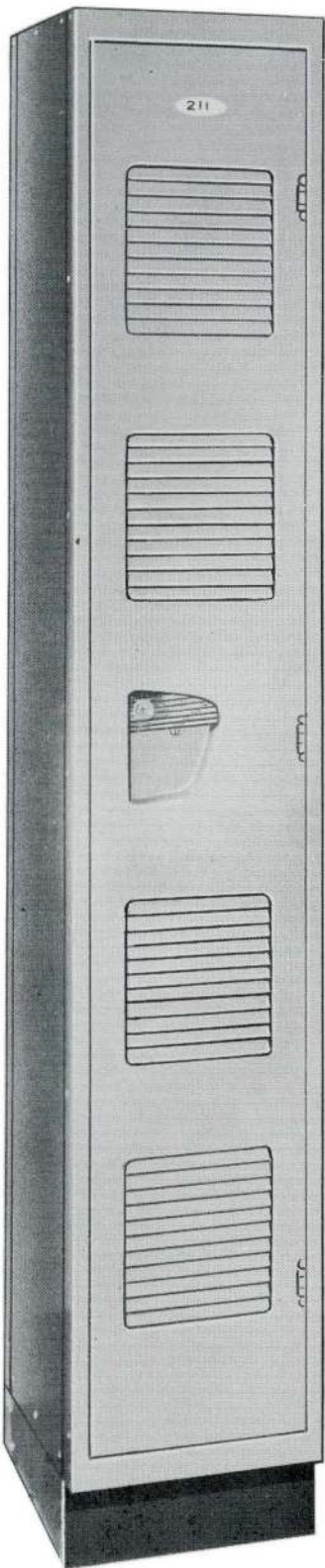
See back of this page for additional styles of lockers.

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LOCKERETTES

For use where space or limitations preclude using full-size lockers, Lockerettes can be supplied in batteries with coat rail as shown, or in stacks to suit available spaces. Standard Lockerette size is 12" x 12" x 18" deep.

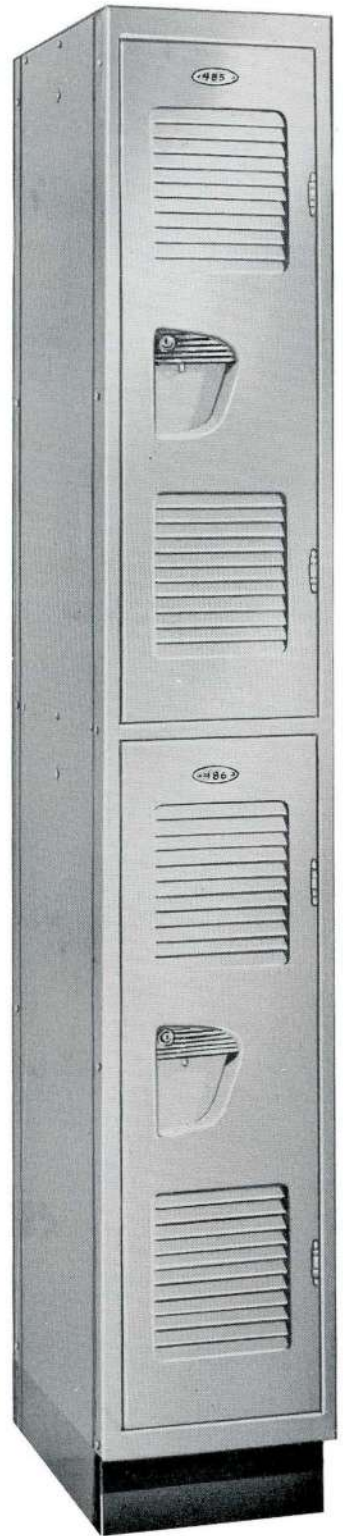
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This is the standard 72" locker but with maximum ventilation provided by two additional sets of louvers. Westeel's dependable latching system and the overall ruggedness of construction assures many years of trouble-free service.

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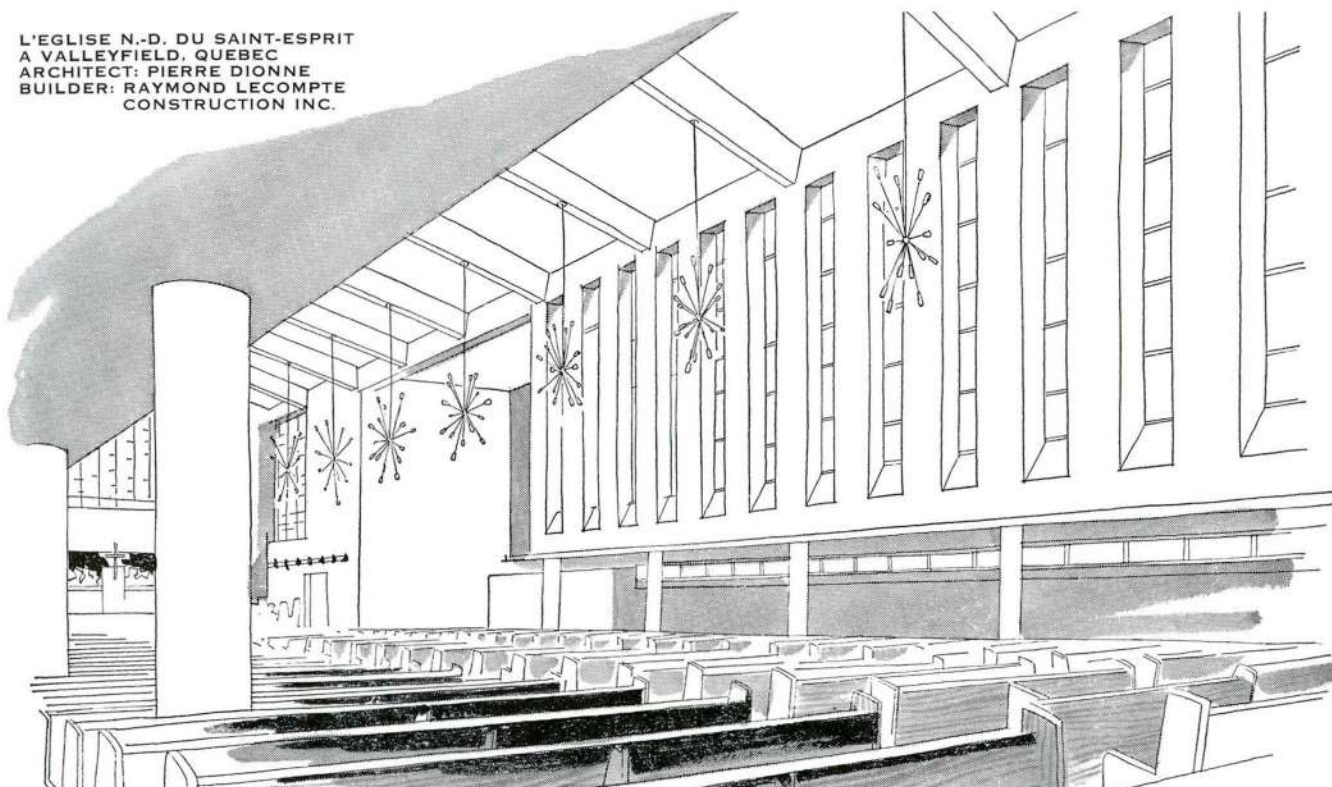
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| <p>1 Rock City Tobacco Plant, Quebec City, Que.
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Gen. Contractor: Francois Jobin Inc.</p> | <p>5 Drummond McGregor Apartment Bldg., Montreal, Que.
Architect: Charles Grenier, Montreal.
Gen. Contractor: Louis Donolo Inc.</p> | <p>9 St. Bernard of Clairvaux Church, Toronto, Ont.
Architects: Cox & Moffet, Toronto.
General Contractor: Perwin Construction Co. Ltd.</p> |
| <p>2 Laval University Medical School, Quebec City, Que.
Architect: Lucien Mainguy, Quebec.
Gen. Contractor: Como Construction Ltd.</p> | <p>6 Canadian Refractories Ltd., Marelau, Que.
Architects: Lawson, Betts and Cash, Montreal.
Gen. Contractor: Andex Ltd.</p> | <p>10 Carleton University Arts Building, Ottawa, Ont.
Architects: Architectural Associates for Carleton University,
Watson Balharrie, Hart Massey,
John Bland, Campbell Merrett, Eric Arthur.
Gen. Contractor: Queensview Construction & Development Ltd.</p> |
| <p>3 Edmundston University, Edmundston, N.B.
Architects: Belanger & Roy, Moncton.
Gen. Contractor: Guay Construction Co. of Edmundston.</p> | <p>7 St. Octave Church, Montreal, Que.
Architect: Robillard, Jetté & Beaudoin, Montreal.
Gen. Contractor: Alta Construction.</p> | <p>11 Kilgour's Limited, Ottawa, Ont.
Architects: Hazelgrove, Lithwick & Lambert, Ottawa.
Gen. Contractor: Paul Daoust Construction Ltd.</p> |
| <p>4 Colonel By Towers Apartment Bldg. Ottawa, Ont.
Architects: Geo. E. Bemis & Associates, Ottawa.
Gen. Contractor: Queensview Construction & Development Ltd.</p> | <p>8 Federal Equipment (Eastern) Ltd., Montreal, Que.
Architects: F. A. Walker & A. Tessier, Quebec.
Gen. Contractor: W. Rourke Ltd.</p> | <p>12 Canadian Thermos Products Ltd., Toronto, Ont.
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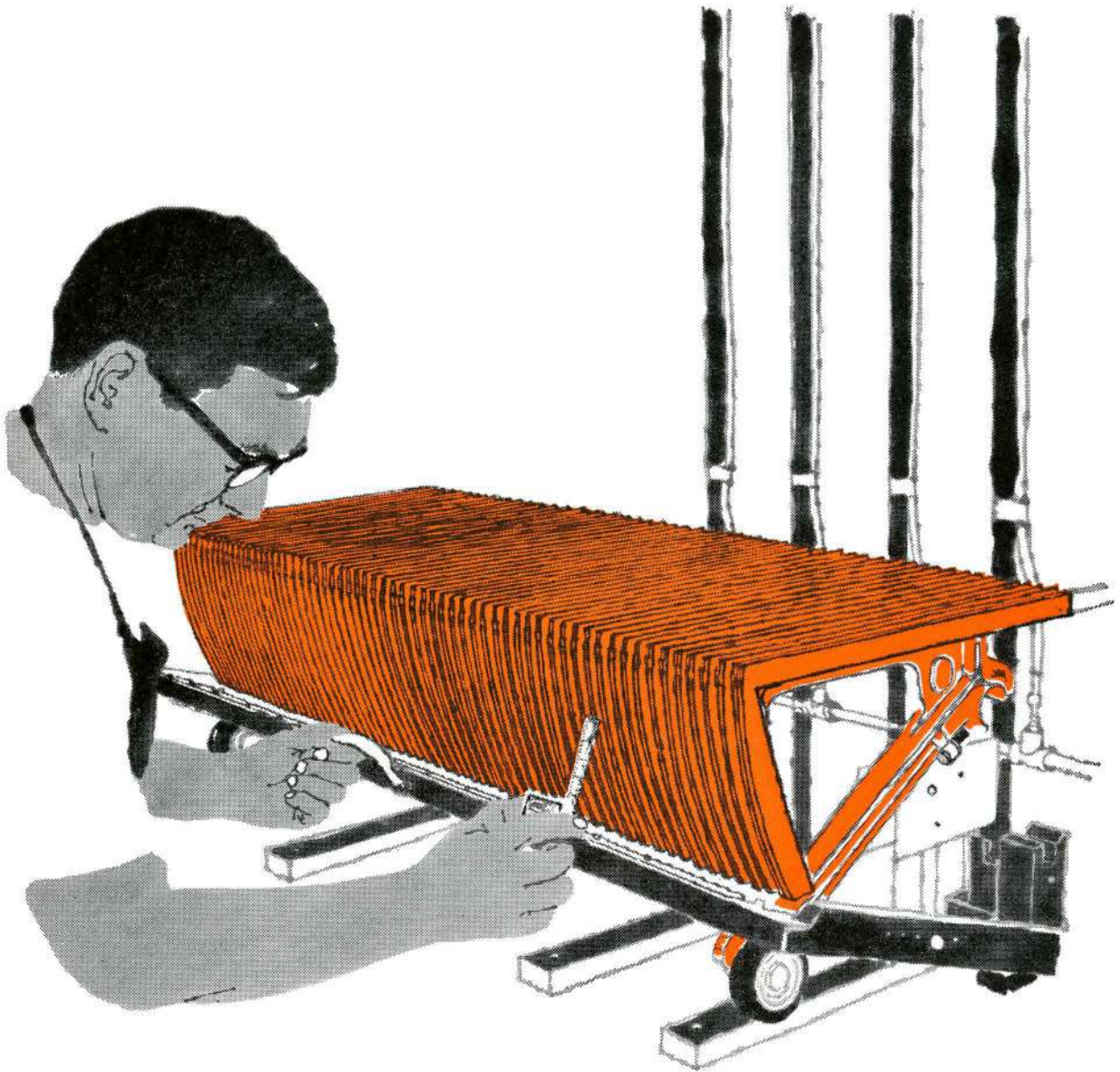
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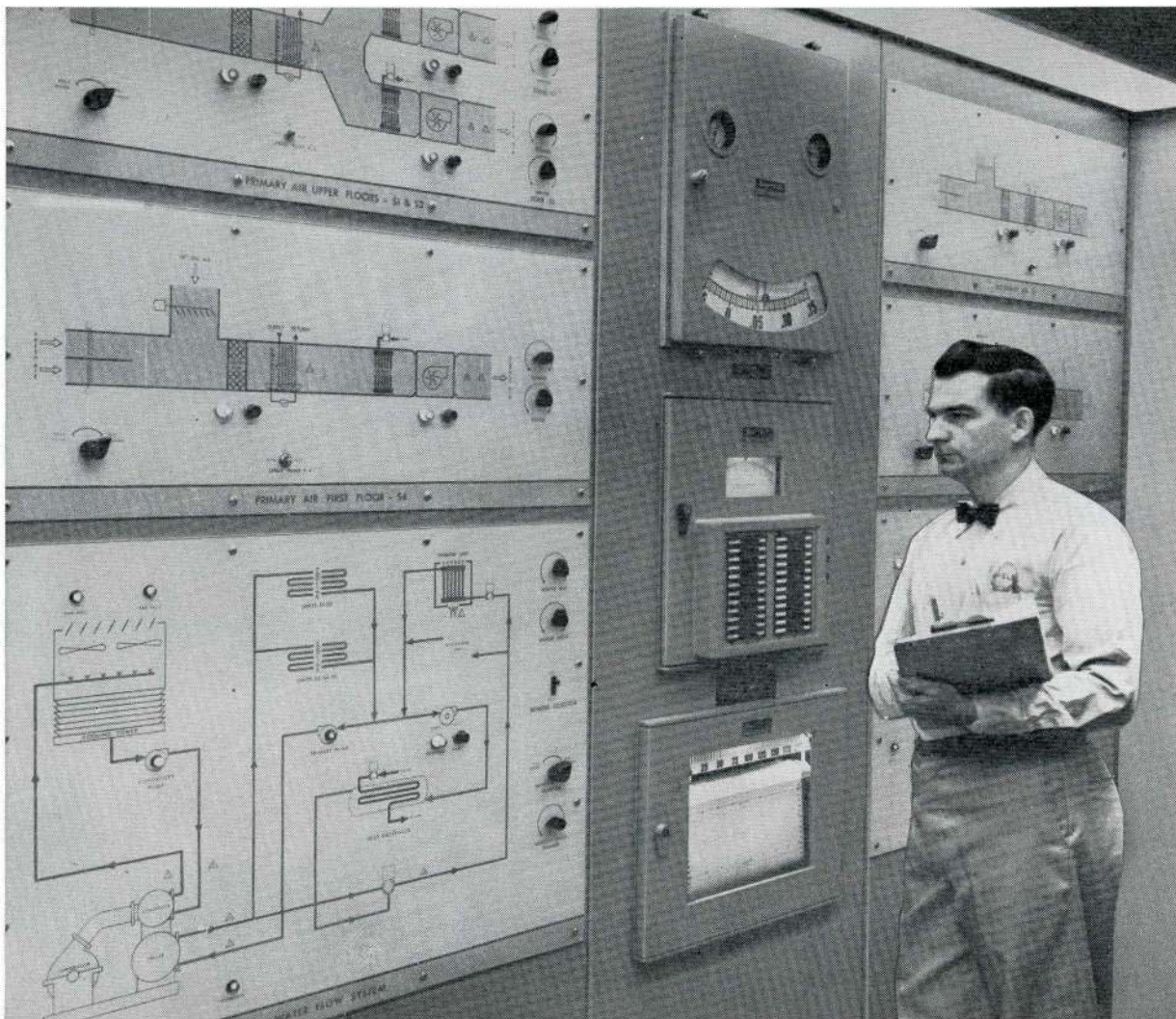


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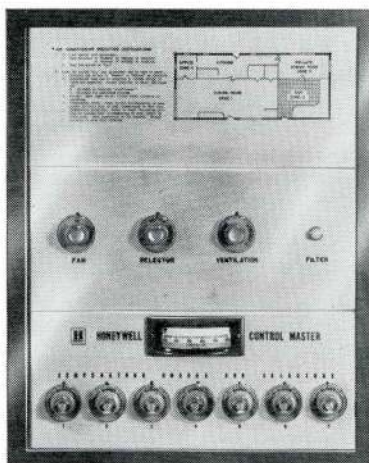
HONEYWELL SUPERVISORY DATACENTER IN controls indoor climate,



IN THE NEW \$6,000,000 SHELL BUILDING the maintenance engineer at the Supervisory DataCenter by pressing a button or rotating a switch can check temperature throughout the building ... can make adjustments when necessary. He

can also start and stop fans and pumps in any location in the building. *Architects:* Marani & Morris; *Consulting Engineers:* Wiggs, Walford, Frost and Lindsay; *Contractor:* Steen Mechanical Contractors Ltd.

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CAN PROVIDE
AUTOMATIC
CONTROL FOR
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◀**SIMPLICITY PLUS ECONOMY.** For even the smallest air conditioning system, Honeywell supplies the Control Master ... a simple electronic panel controlling up to seven zones. The Control Master permits the building owner or manager to start or stop equipment, adjust temperatures or supplies of fresh air without leaving his own office.

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THE NEW SHELL OIL BUILDING saves man-hours, saves fuel and power

Honeywell can provide automatic control for every size of building

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A Supervisory DataCenter can be custom designed to meet the needs of your building: New or old . . . factories, offices, hotels, motels, apartments, schools and churches.

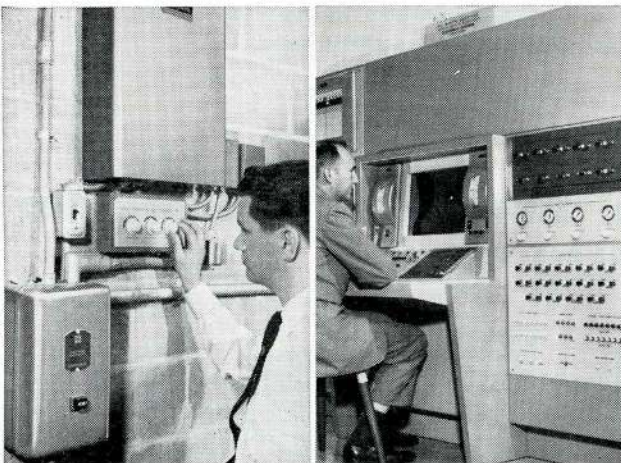
A Supervisory DataCenter can properly be provided only by Honeywell. Because only Honeywell manufactures all types of control equipment . . . electronic, electric and pneumatic. Honeywell is a single source of supply for thermostats, valves, switches, indicating, recording and control instruments, and all the necessary accessories and components for the entire job. By the same token, Honeywell engineers will take full responsibility for this equipment . . . for its installation, and maintenance. For information, call your nearest Honeywell office or write Honeywell Controls Limited, *Commercial Division*, Toronto 17, Ontario.

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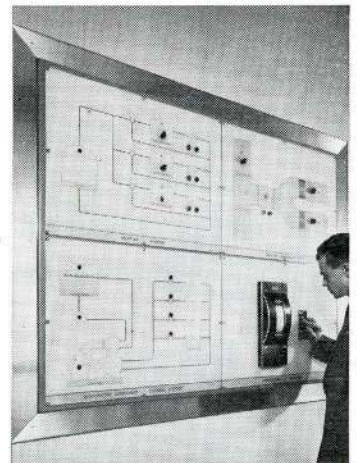
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SINCE 1885



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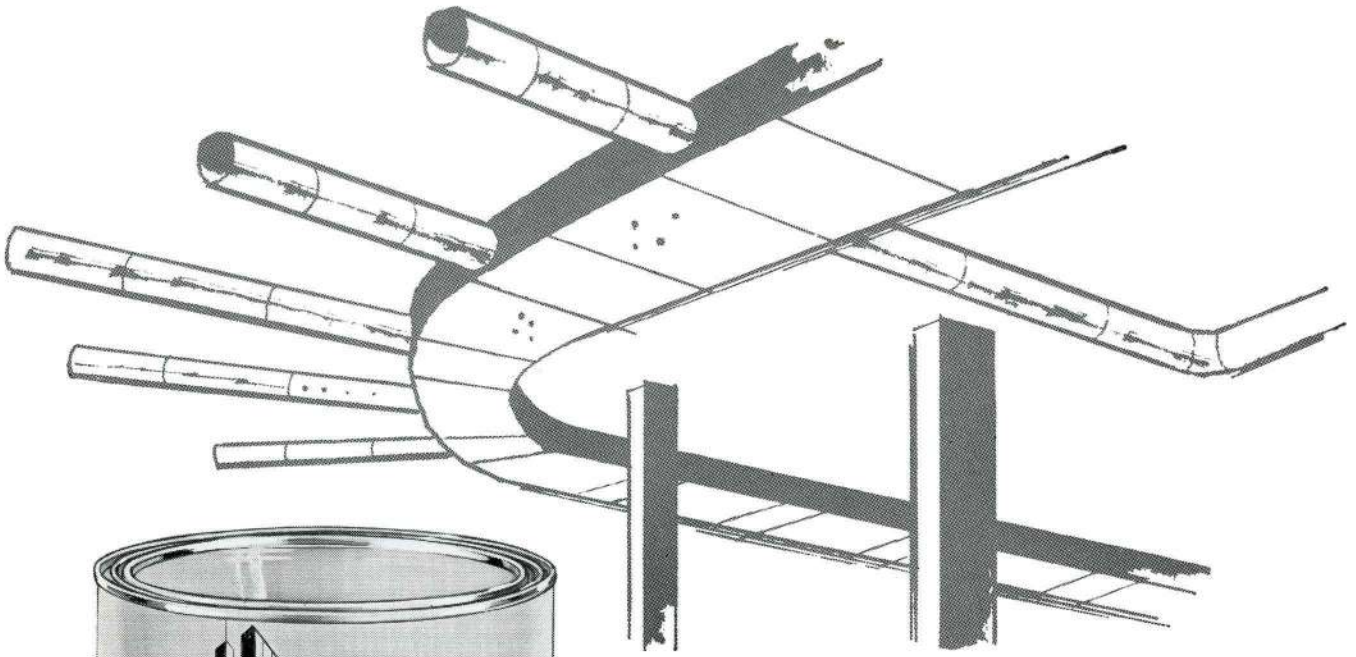


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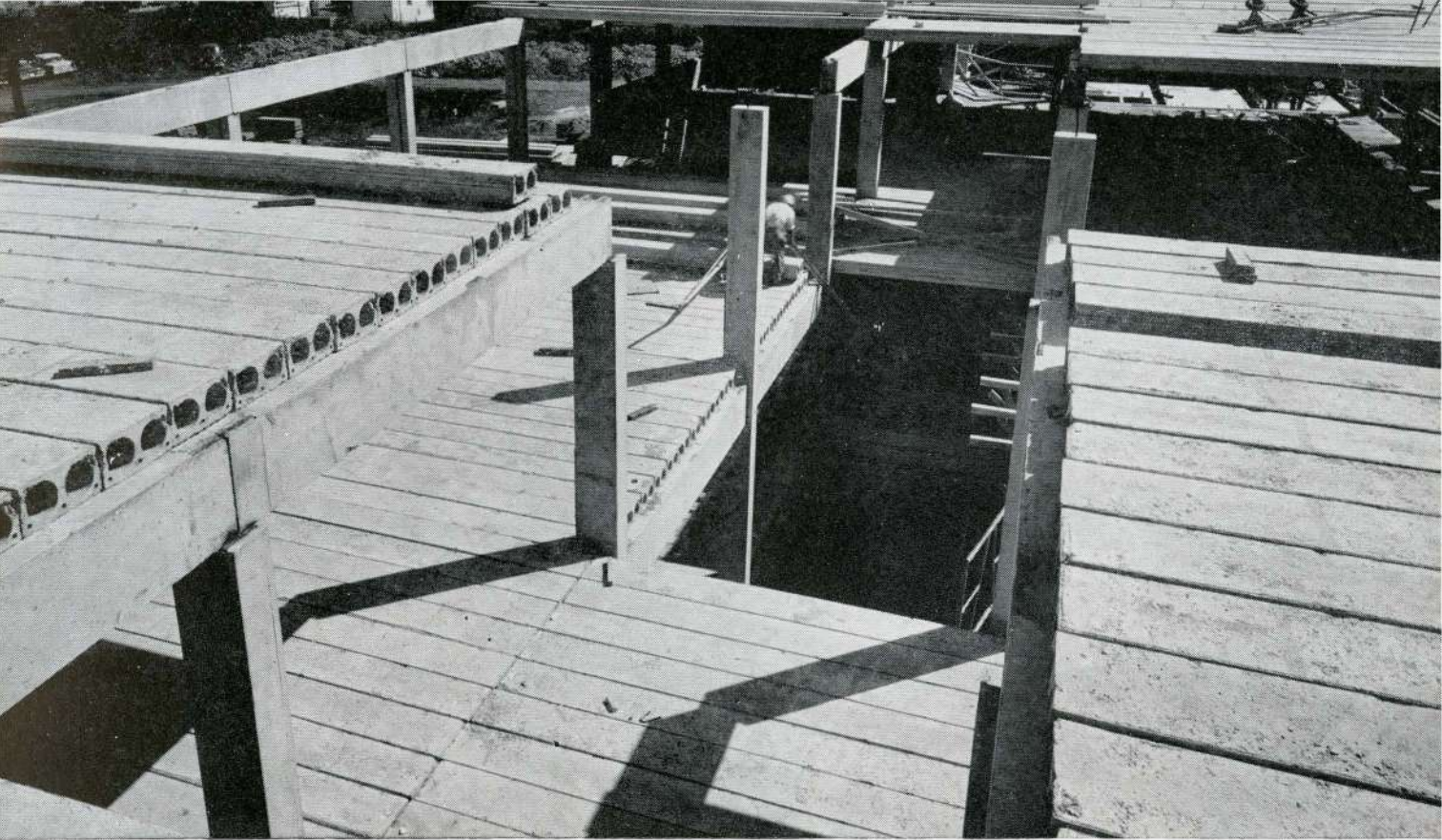
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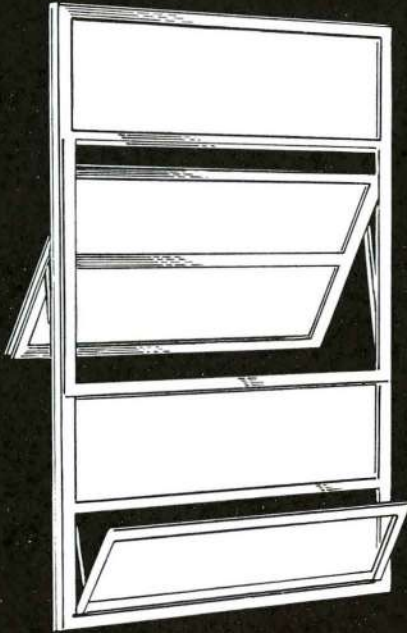
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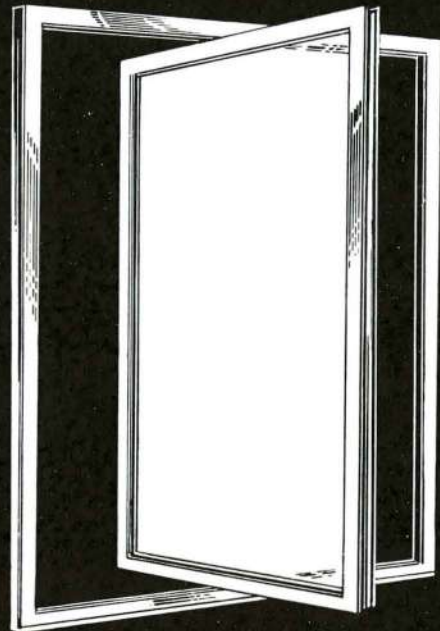


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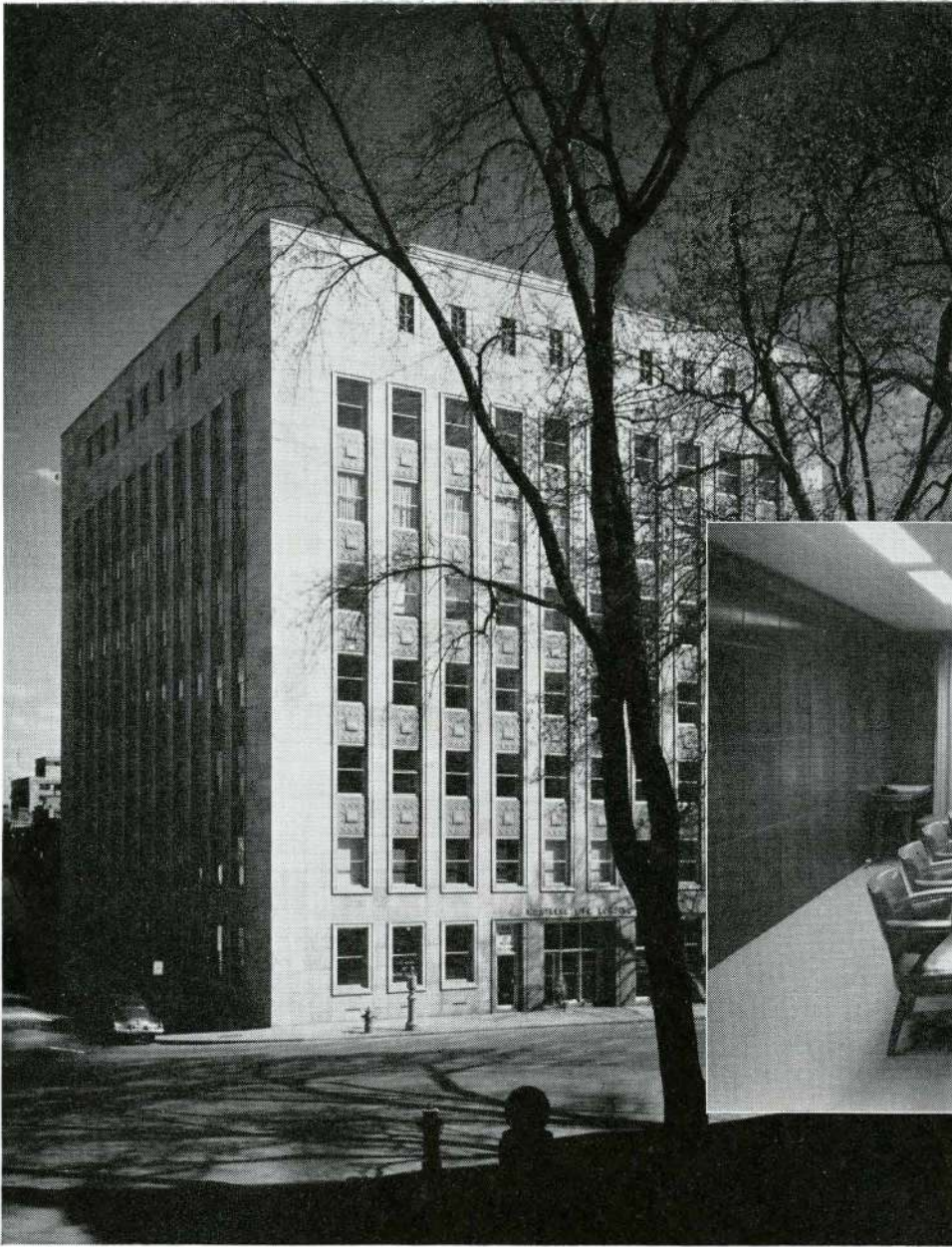
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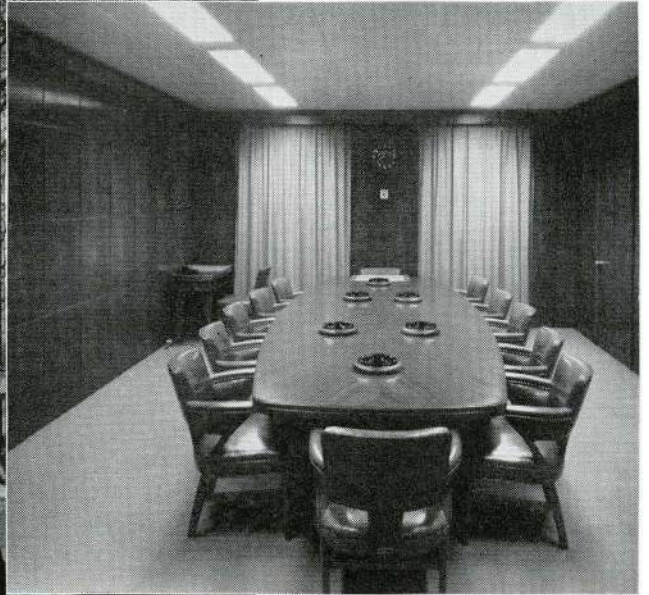


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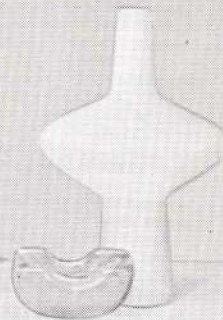
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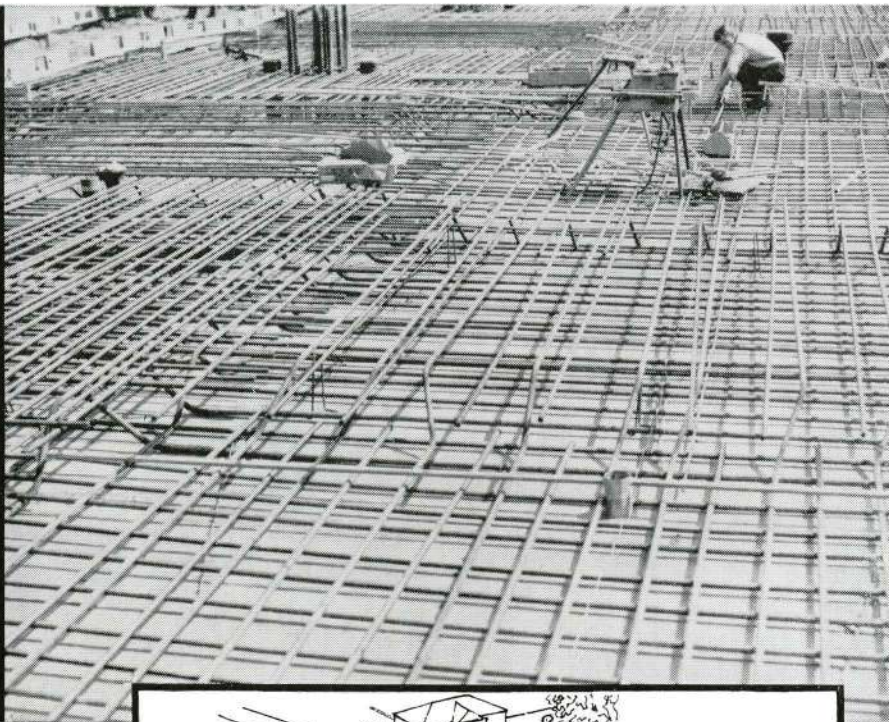
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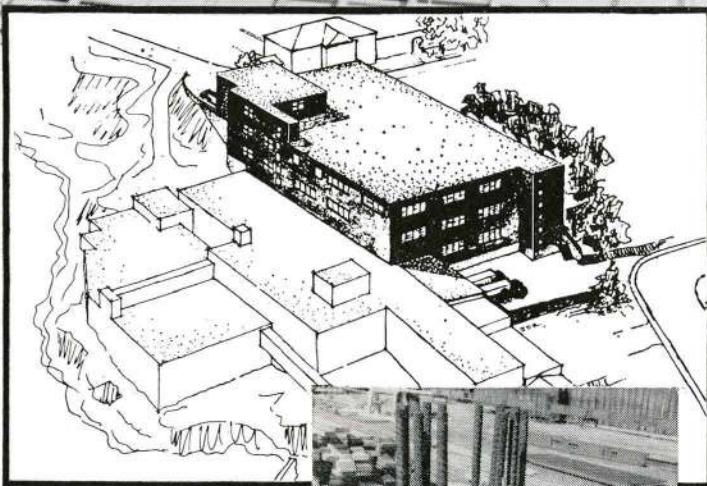


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Stelco Hi-Bond Reinforcing Bars conform to CSA G.30.1 and G.30.6-1954 Specifications and ASTM Designation A. 305-51. For full information contact any Stelco Sales Office.



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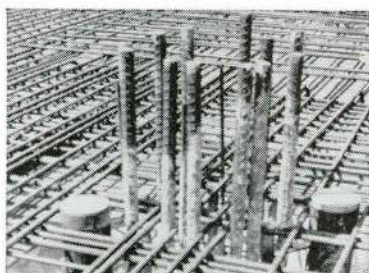
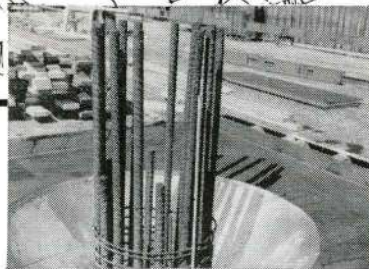
J. Alphonse Bélanger,
Sherbrooke, Quebec

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Coté, Lemieux, Carignan
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CONTRACTORS:

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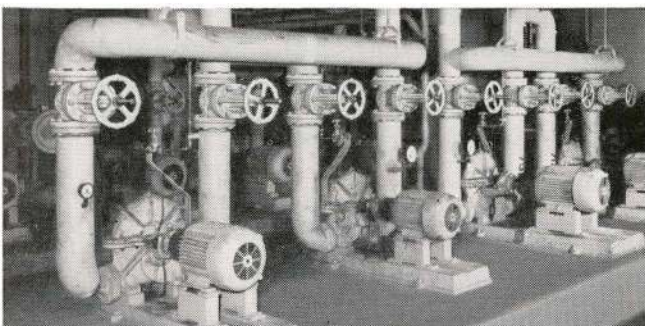
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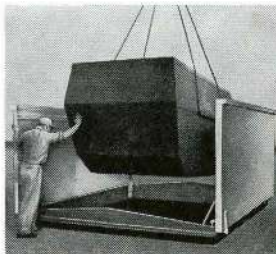
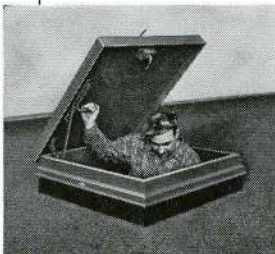
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Jenkins Bros

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*Reg. T.M.



Handrails of the gracious main stairway in the Queen Elizabeth Hotel are fabricated from Anaconda Nickel Silver.

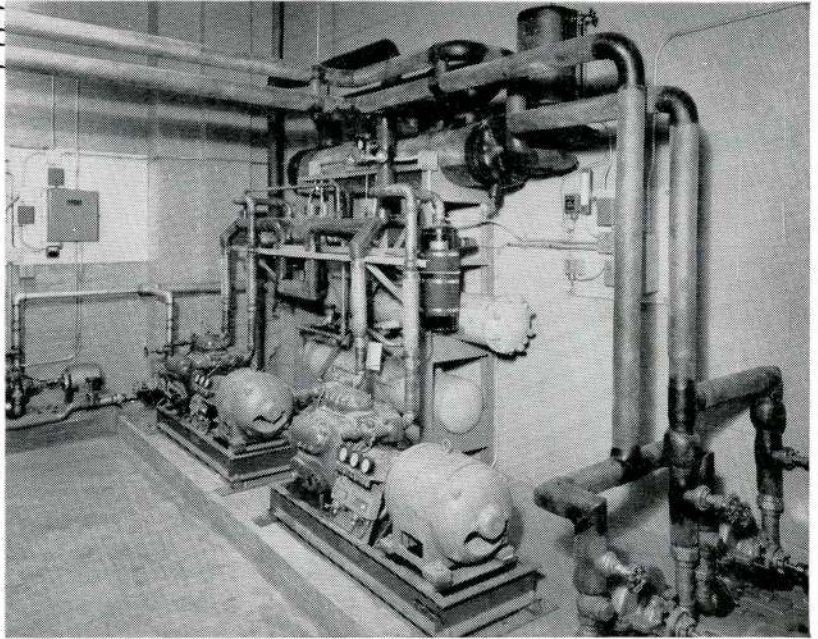


Inner doors of the main entrance are made of Anaconda Nickel Silver, push plates are half Nickel Silver and half solid Brass.

Architect: Harold C. Greensides. Decorative Nickel Silver work by Ornamental Metal and Machine Works Limited, Montreal.



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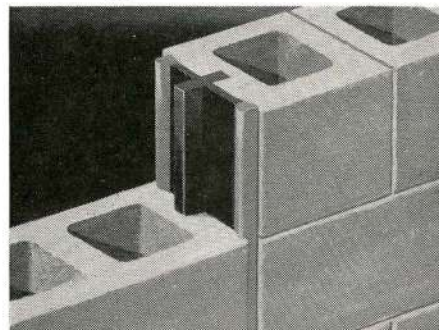
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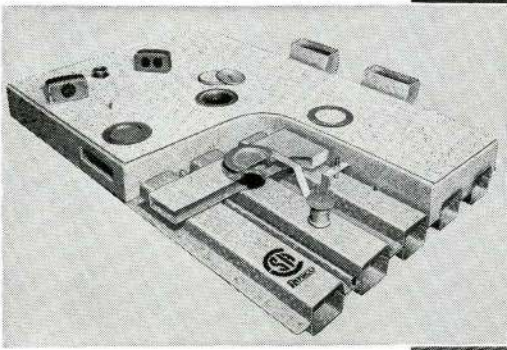


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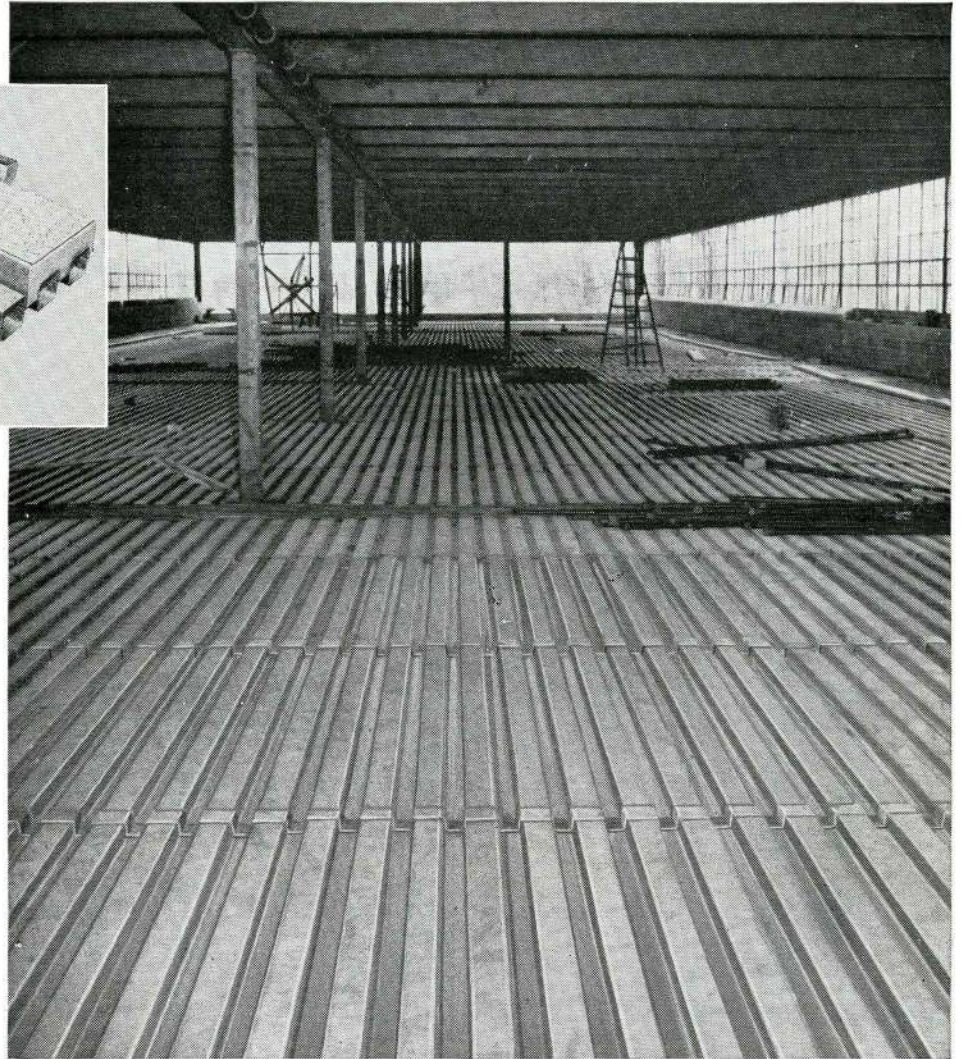
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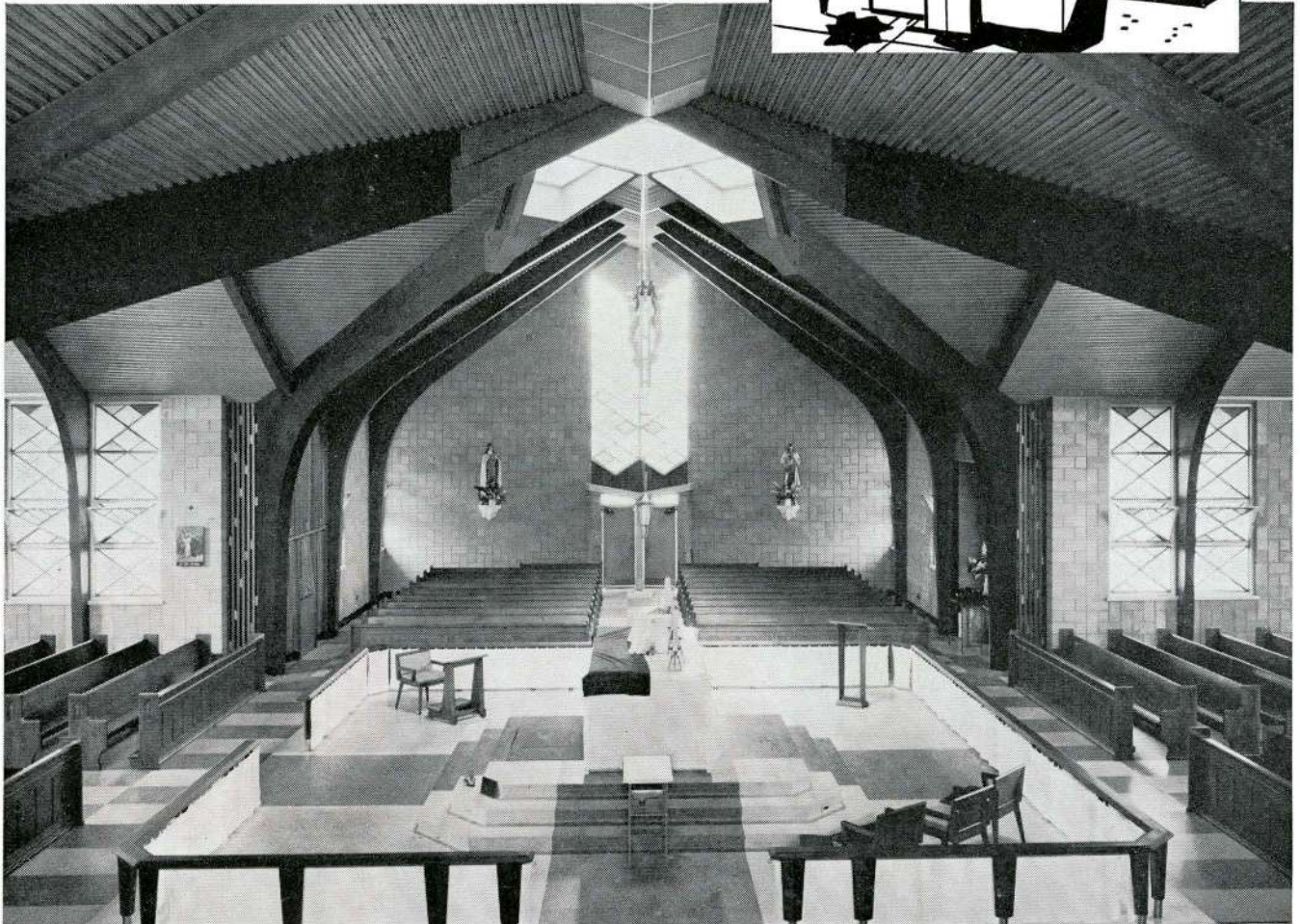
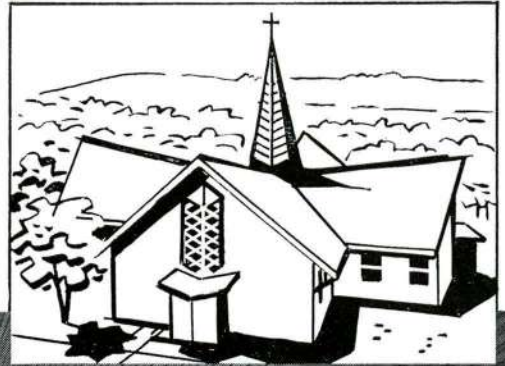
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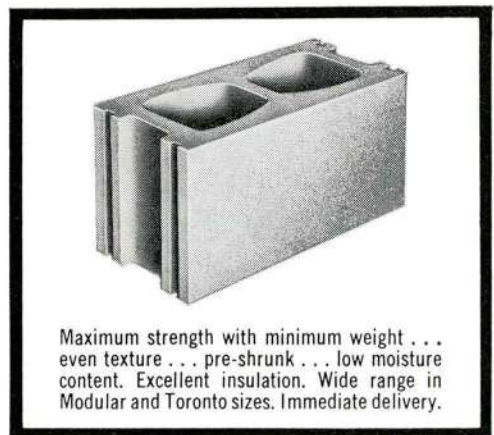
St. John the Baptist Church, Hamilton. Architect: Frank H. Burcher, Hamilton. General Contractors: Frisina Construction Co., Hamilton.

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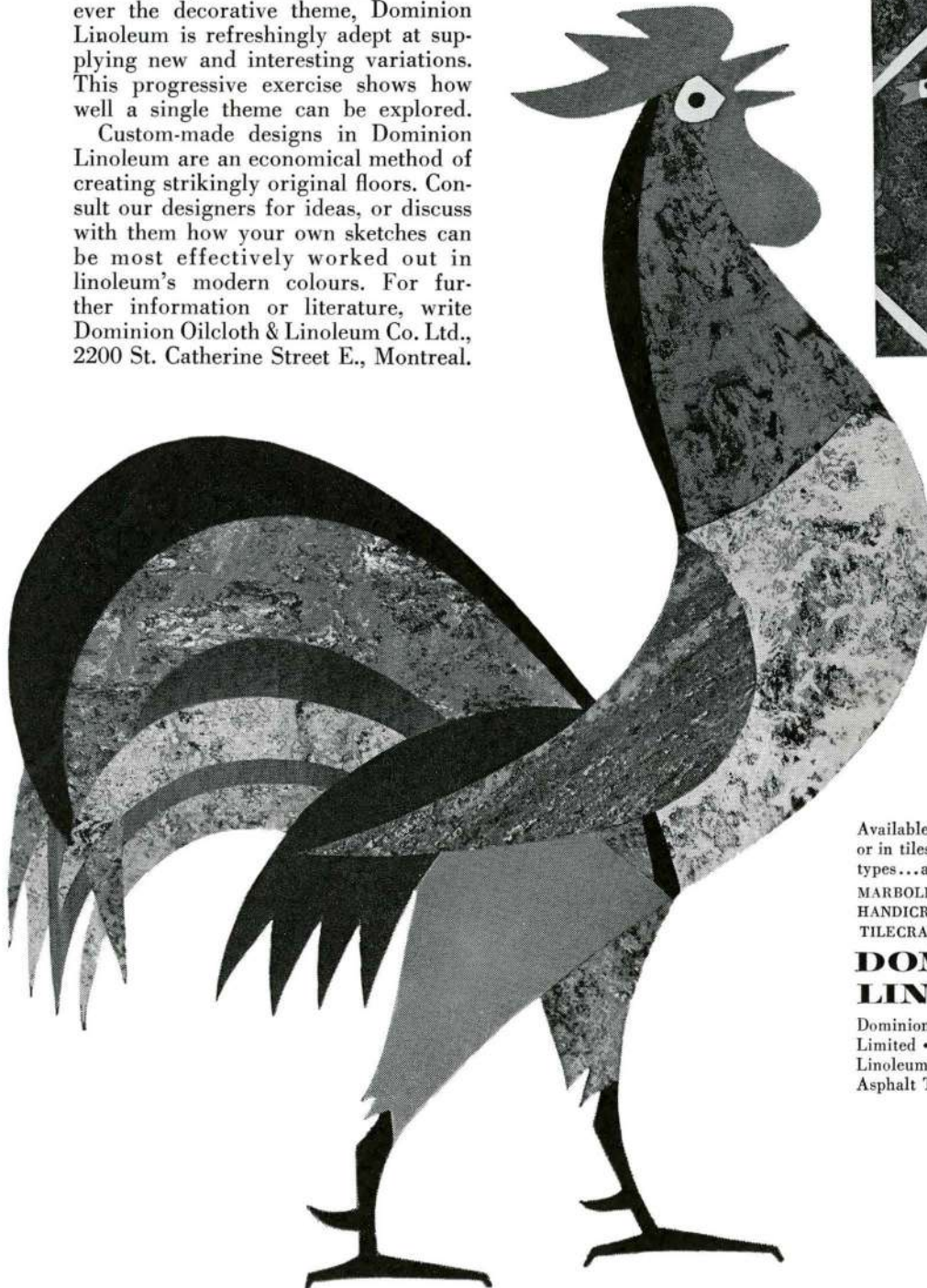
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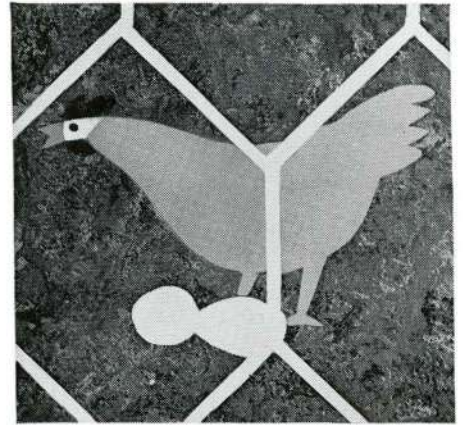
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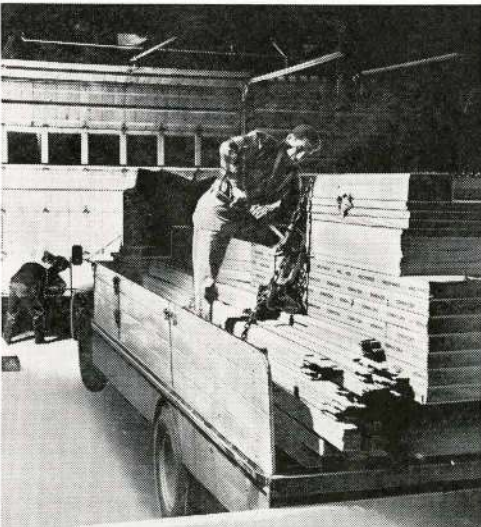
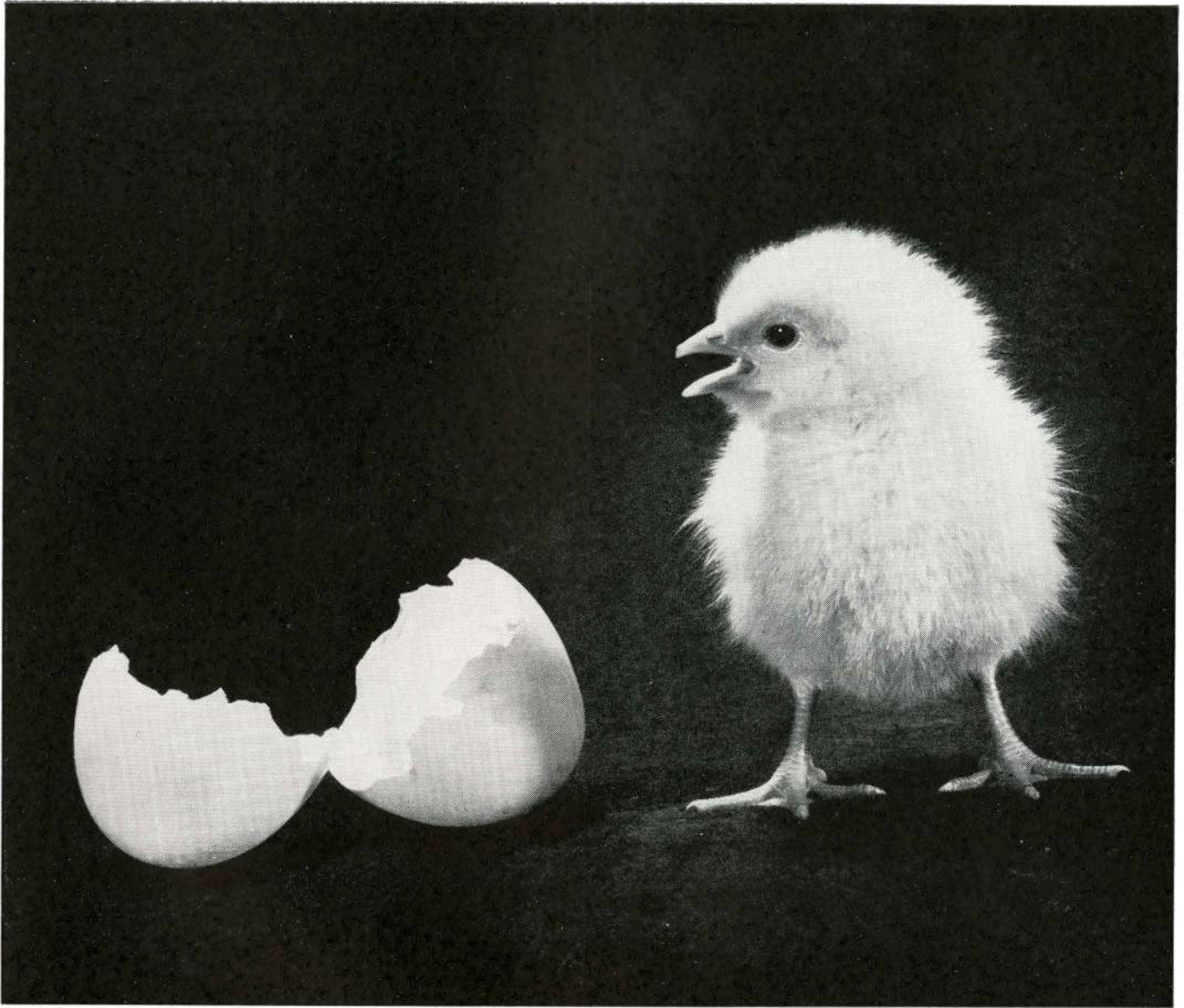
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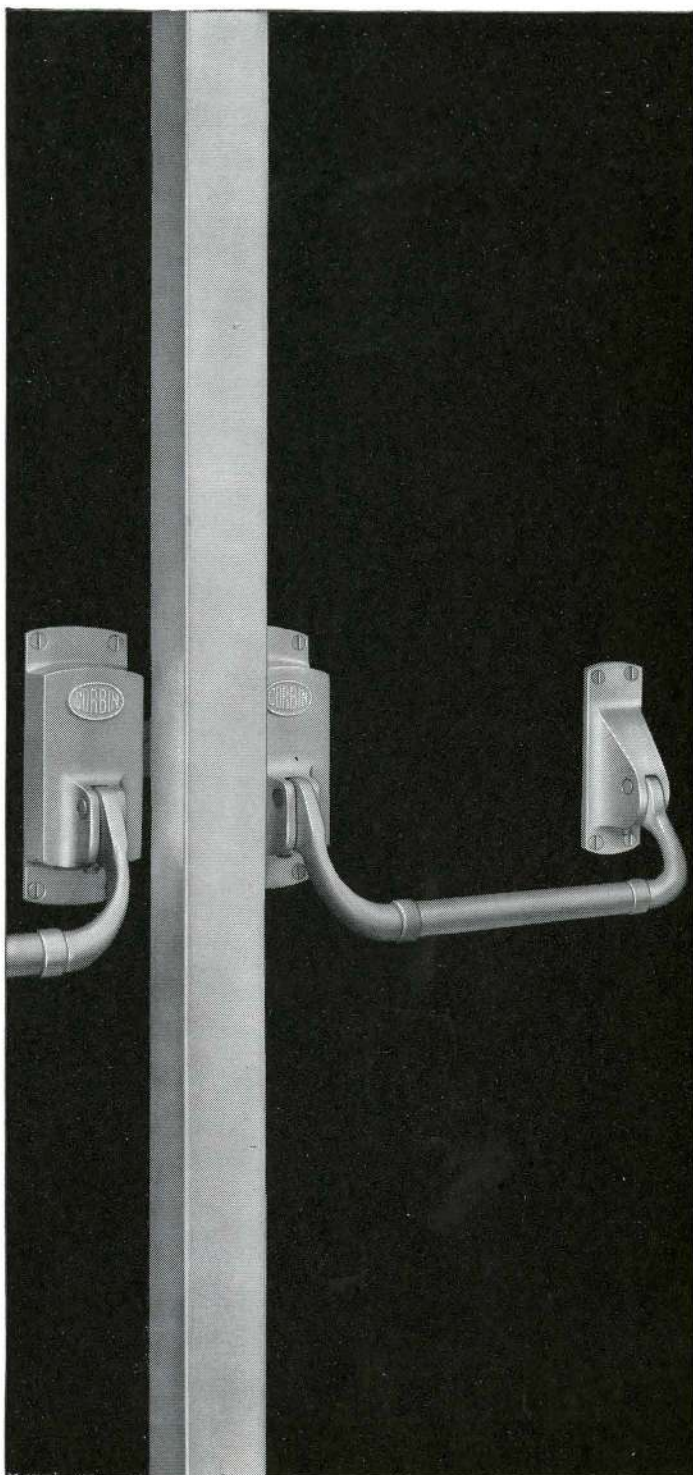


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SERIAL 416, VOLUME 37, NUMBER 4, APRIL, 1960

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INVITATION TO WINNIPEG

AS PRESIDENT OF THE Manitoba Association of Architects, it is my privilege to extend a cordial invitation to all members of the Royal Architectural Institute of Canada to attend the forthcoming Fifty-Third Assembly in Winnipeg, June 1 to 4.

The Manitoba Host Committee has been working in close cooperation with the RAIC Executive in the preparation of a program which it is hoped will be entertaining and stimulating, both professionally and socially. The program details appear elsewhere in this issue with information as to dates and times, but it might be well to draw particular attention to some of the items.

The success of the seminar discussion at last year's Assembly in Windsor, has led us to set aside the entire day of Friday, June 3 for a morning panel discussion and group seminars in the afternoon. The theme of these discussions has been stated as "Professional Responsibility". Discussion will be directed toward exploring the changing role of the profession in the next decade in terms of today's business practices. It will provide a re-assessment of the existing canons of ethics in relation to the position of the architect in present day society.

The setting for these discussions will be the Campus of the University of Manitoba, located in suburban Fort Garry. This beautiful campus setting seems most appropriate for a gathering which will encompass so many of the alumni of the University School of Architecture, and will also give the members an opportunity to view the new School of Architecture building, along with other new structures on the campus.

The 1950 Beaux Arts Ball will no doubt be remembered by all who attended that Assembly in Winnipeg. The Ball is to be a major social feature of the program again this year. The Host Committee has put forth a tremendous effort both in decoration and theme, and we are sure that all those attending will be well entertained. We have been most fortunate this year in securing the Royal Winnipeg Ballet to perform during the intermission.

The ladies will be entertained at a luncheon at picturesque Lower Fort Garry. This Fort is one of the few buildings of its type in North America which has been preserved intact.

With the staging of the first Alumni Reunion of the University of Manitoba School of Architecture immediately preceding our Assembly, it is anticipated that the total attendance this year will be quite high.

The Manitoba Association of Architects is looking forward to the opportunity of acting as host to colleagues from across Canada, and promise to do everything possible to make their stay a pleasant and memorable one.

*James E. Searle, President
Manitoba Association of Architects*

A TITRE DE PRÉSIDENT de l'Association des architectes du Manitoba, c'est à moi que revient le plaisir d'inviter tous les membres de l'Institut Royal d'Architecture du Canada à la Cinquante-troisième assemblée annuelle qui aura lieu à Winnipeg, du 1er au 4 juin.

Notre comité de réception, avec la collaboration de l'exécutif de l'Institut, a dressé un programme qui, nous l'espérons, sera à la fois divertissant et stimulant.

On trouvera ailleurs, dans le présent numéro, tous les détails du programme avec indication des dates et heures, mais nous voulons nous arrêter ici à certaines manifestations particulières.

Le succès de la journée d'étude tenue l'an dernier à l'assemblée de Windsor nous a incités à consacrer toute la journée du vendredi 3 juin à la même activité, soit à une discussion collective le matin et à une étude par groupes l'après-midi. Le sujet à l'étude sera "La responsabilité professionnelle". On examinera en particulier l'évolution du rôle de l'architecture au cours des dix prochaines années, à la lumière des pratiques qui ont cours en affaires aujourd'hui. On en profitera pour faire l'examen critique des règles d'éthique en vigueur, compte tenu de la place que l'architecte occupe présentement dans la société.

Cette journée d'étude aura lieu dans les immeubles de l'Université de Manitoba, situés en la banlieue de Fort Garry. Ce site magnifique semble tout désigné pour une réunion qui comptera un grand nombre d'anciens de l'école d'architecture de l'Université de Manitoba; les membres auront ainsi l'occasion de visiter le nouvel édifice de l'École d'architecture ainsi que les autres nouveaux immeubles de l'Université.

Tous ceux qui ont assisté à l'assemblée annuelle de Winnipeg en 1950 se rappellent sans doute le bal des beaux-arts. Le bal sera de nouveau cette année un des principaux divertissements au programme. Le comité de réception a consacré beaucoup d'efforts au thème du bal et à la décoration; nous sommes sûrs qu'on s'y amusera beaucoup. Nous avons eu la bonne fortune de pouvoir retenir le Royal Winnipeg Ballet pour l'intermède.

Les dames seront invitées à déjeuner au pittoresque Lower Fort Garry. Ce fort est l'une des rares structures du genre en Amérique du Nord qui a été conservée en parfait état.

Comme le premier conventum des anciens de l'école d'architecture de l'Université de Manitoba aura lieu immédiatement avant notre assemblée, on s'attend à ce qu'il y ait beaucoup de monde cette année.

L'Association des architectes du Manitoba est heureuse de recevoir ses collègues de partout au Canada; nous nous proposons de faire de notre mieux afin que leur séjour parmi nous soit agréable et leur laisse un bon souvenir.

*James E. Searle, président
l'Association des architectes du Manitoba*

Winnipeg welcomes the delegates attending the 53rd Annual Assembly of the Royal Architectural Institute of Canada.



With the recent completion of the contest on the proposed new City Hall, I take this opportunity to convey to you my appreciation of the excellent manner in which the competition was conducted. I had the pleasure of meeting the members of your Institute who played an important part in the decision made.

I trust your meetings here will be successful in every way.

Stephen Juba
MAYOR.

I am grateful to the R.A.I.C. Journal for providing me an opportunity of extending a warm welcome on behalf of the Government and people of Manitoba, to delegates to the 53rd Annual Assembly of the Royal Architectural Institute of Canada.



PROVINCE OF MANITOBA
OFFICE OF THE PREMIER
WINNIPEG

While your professional deliberations of necessity will demand a great deal of your attention, I do hope that you will find time to see much of our capital city, its environs, its buildings, and above all its people, for I feel sure the hospitality you will receive will be a long-remembered pleasurable highlight of your visit.

May I personally wish you a successful convention and one of many enjoyable visits to Manitoba.

Duff Roblin,
Premier of Manitoba.

WEDNESDAY, JUNE 1

9.00 am – 6.00 pm Registration
 9.00 am – 10.00 pm Press Conference, Report of the RAIC Committee of Inquiry into the Residential Environment
 10.00 am – 12 noon Standing Committee on Architectural Education
 1.00 pm – 2.30 pm Executive Committee
 2.30 pm – 4.00 pm 1959-60 Council
 4.00 pm – 6.00 pm National Registration Council
 4.00 pm – 6.00 pm Editorial Board
 7.00 pm – 9.00 pm Standing Committee on Building Research
 9.00 pm – 11.00 pm Reception by Manitoba Association of Architects

THURSDAY, JUNE 2

9.00 am – 6.00 pm Registration
 9.15 am – 11.30 am Inaugural Assembly Session. Addresses of Welcome His Worship, Stephen Juba, Mayor of Winnipeg, Hon. Duff Roblin, Premier of Manitoba
 11.30 am – 12.30 pm Special Committee on the Preservation of Historic Buildings
 12.30 pm – 2.15 pm Luncheon. Keynote address: Basil Spence, President, RIBA
 2.30 pm – 5.00 pm 53rd Annual Meeting
 5.00 pm – 6.30 pm Special Committee on Package Deal
 5.30 pm – 7.00 pm College of Fellows Business Meeting
 6.30 pm – 8.00 pm Central Public Relations Committee (Dinner Meeting)
 8.30 pm – 10.00 pm Discussion of report of RAIC Committee of Inquiry into Urban Environment.

FRIDAY, JUNE 3

9.30 am – Seminar, University of Manitoba
“Professional Responsibility” – Seminar Chairman: James Strutt, Ottawa, President, Ontario Association of Architects
 1. Large Office Charles Edward Pratt, Vancouver
The Scope and Responsibilities Peculiar to the Larger Organization, both as to Staff and Public.
 2. Small Office
The Scope and Responsibilities Peculiar to the Smaller Organization, both as to Staff and Public.
 3. Educator-Architect John Bland, McGill U., Montreal
Bridging the Gap in an Ever Changing Environment.
 4. Allied Fields B. C. Binning, U. of British Columbia
The Need for Understanding and Means of Implementation.
 5. Social – Political F. J. G. Dallyn, U. of Manitoba (Sociologist)
A Realistic look at the Contributions of these fields and their use by the Architect.
 6. Planning Dave Loeks, Griggs Midway U., St Paul, Minn.
The Fields of Mutual Contribution and Responsibility.
 LUNCH – 12.45 pm – Guests of Manitoba Association of Architects
Address: “Architecture: Business or Profession?”

SATURDAY, JUNE 4

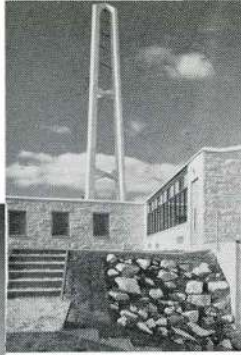
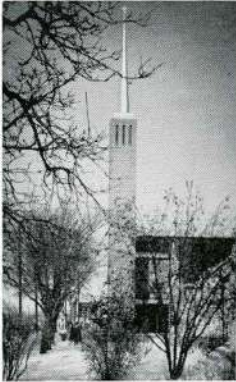
8.00 am – 9.00 am Massey Medals Committee
 9.00 am – 12 noon Registration
 9.30 am – 12 noon Resume annual meeting. Discussion of resolutions from seminars.
 12 noon – 2.00 pm 1960-61 Council Luncheon
 2.30 pm – 3.00 pm Robing
 3.00 pm – 4.00 pm 1960 Convocation, College of Fellows
 7.30 pm 53rd Annual Dinner. Speaker: Right Hon. John Diefenbaker, P.C., Q.C., Prime Minister of Canada

SUNDAY, JUNE 5

10.00 am 1960-61 Executive Committee

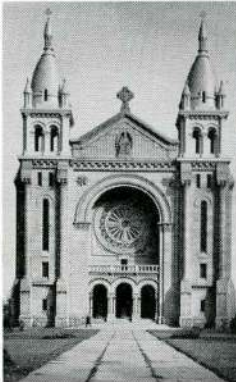
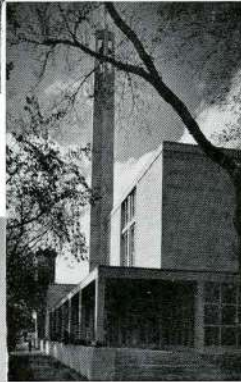
1907-1960

PERPENDICULAR PROJECTIONS TO THE HORIZONTAL PRAIRIE



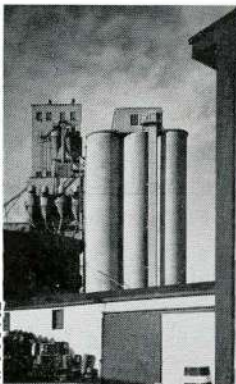
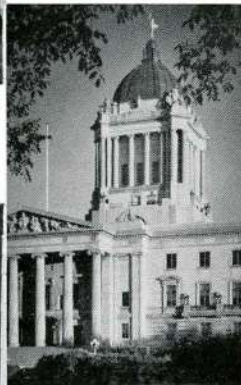
St Paul's College, University of Manitoba. Architects, Gardner, Thornton, Gathe and Associates

Regent Park United Church. Architect, N. C. H. Russell



St George's Anglican Church. Architects, Green Blankstein Russell and Associates

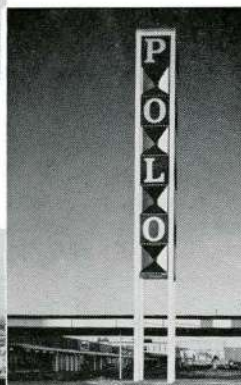
St Boniface Basilica, St Boniface, Manitoba



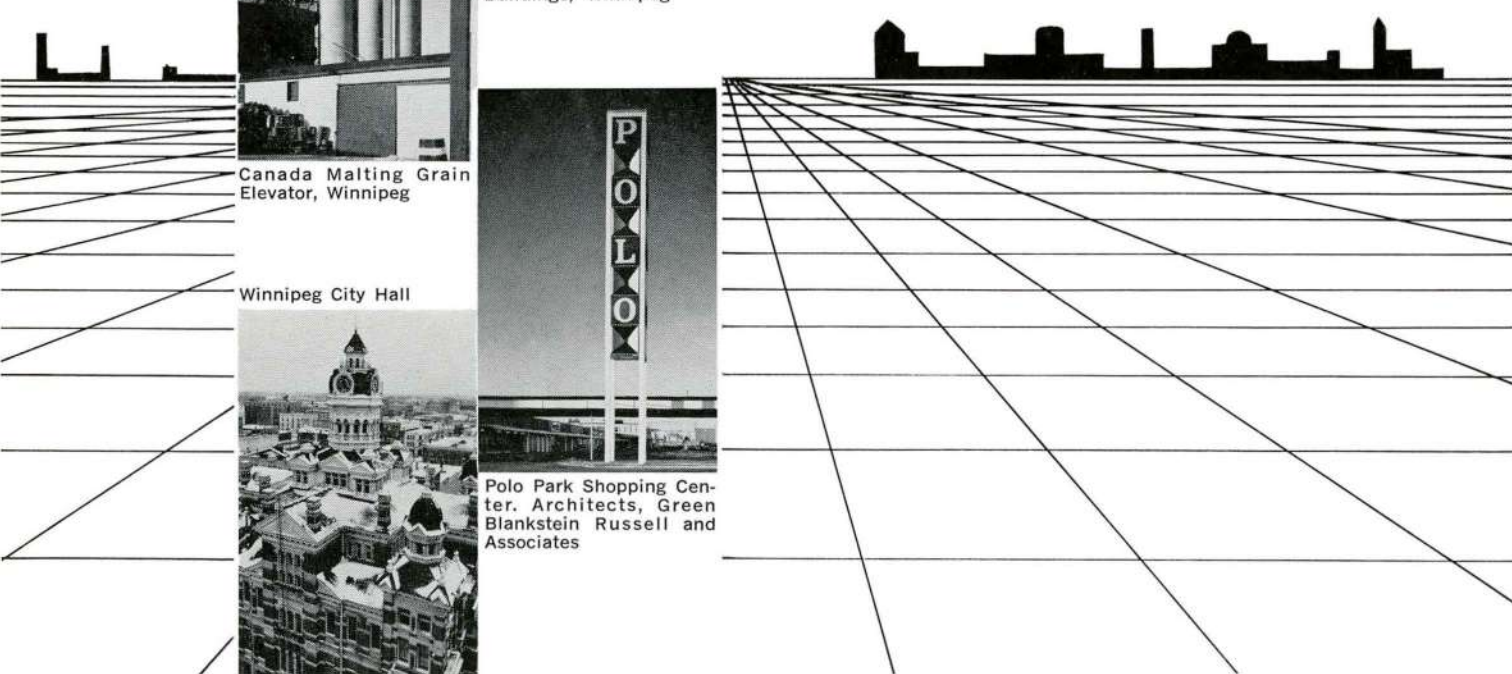
Manitoba Legislative Buildings, Winnipeg

Canada Malting Grain Elevator, Winnipeg

Winnipeg City Hall



Polo Park Shopping Center. Architects, Green Blankstein Russell and Associates



The Mid-Continent Mosaic

ARTS AND LETTERS IN WINNIPEG

"If indeed anything distinctive in the arts and letters were to arise in the Province, it would come from the mingling and fusion of its many peoples."
W. L. Morton, *Manitoba: A History*

Commentary by
John A. Russell

Less than ninety years ago Winnipeg was a new city of 100 inhabitants clustered around the junction of the Red and the Assiniboine. Today its 410,000 residents spread out over forty-three square miles. This "City of the Rivers" has become Canada's most cosmopolitan centre, with peoples from over forty nations who have brought with them culture patterns representative of the racial stocks of five continents. In its brief span of 87 years as a city, Winnipeg has fostered and developed patterns of cultural activity which have become inseparably interwoven with its everyday life. Such activities have created a vast scintillating mosaic of cultures unified in diversity rather than through uniformity — a tangible expression of the life of the community. These are the activities and interests "that go beyond supplying the basic requirements of existence and give to it beauty, pleasure and meaning."

The Arts have been defined by The Canada Council Act as including "Architecture, the arts of the theater, literature, music, painting, sculpture, the graphic arts and other similar and interpretative activities". These arts now mingle and flourish side by side in the cultural garden of the gateway city to the prairie.

This issue of the Journal is devoted to an exploration and exposition of the many facets of art and culture in Winnipeg. Appropriately the major part of the issue deals with architecture and the visual arts. This particular article attempts to trace in broad terms the arts of the theater, literature, music, painting and sculpture. I am deeply grateful to the five experts who have contributed the following summaries. Perforce, our selection of the items to be included has been representative, not comprehensive; even these limited references will indicate the vitality of the arts and letters at the edge of the prairie.

The Contributors

John A. Hirsch
Theatre

Kathleen Richardson
Ballet

James Crearar Reaney
Writing

A. Roy Maley
Music

Dr. Ferdinand Eckhardt
Painting and Sculpture



Portage Avenue from Main Street

HENRY KALEN

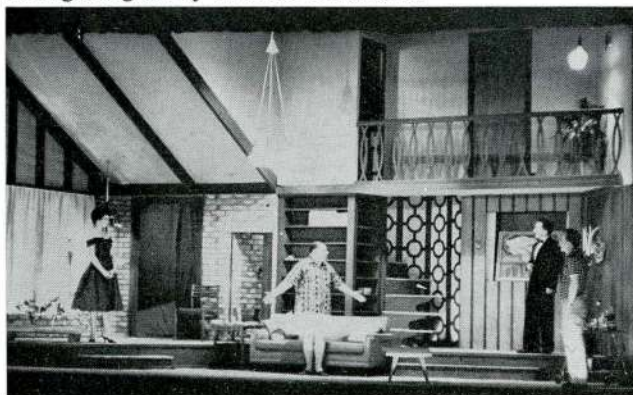
Theatre in Winnipeg has had a long and glorious history. Records show that local groups were presenting plays in the Theatre Royal and the Lower Fort Theatre in 1870, and in the Garrison Theatre and Dufferin Hall in 1877. Many groups and many theatres later — December 12, 1921, to be exact — the formation of the Community Players of Winnipeg introduced the sequence of dramatic activities which has culminated in the Manitoba Theatre Centre described in John Hirsch's article below. From 1921 to 1937 this amateur group produced some seventy major productions, many of which were exceptional.

IT IS SIGNIFICANT that it all began on the prairies. There's something about that wide wash of pale blue sky that encourages dreaming, and the pioneering days are still alive in our memories. The ruts that our thinking runs in have not yet had time to deepen into graves for ideas. These ingredients, together with the melange of new and foreign thoughts peculiar to the immigrant make-up of our population, have in the case of the Theatre Centre combined to produce a unique experiment in Canadian theatre, a theatre centre with a three-pronged aim of fostering professional, amateur and educational theatre on the prairies.

Having this wide a set of aspirations may seem a trifle presumptuous to the onlooker viewing the struggling organization that has set out on this crusade. Perennially short of funds, not yet securely established in the collective Winnipeg mind as a worthwhile community effort, inadequately staffed, suffering from serious lacks of experience and know-how, is this battered horn the trumpet that will blow down the Jericho-walls of public and official apathy? Examining the background that produced the set of concepts known as Manitoba Theatre Centre, one sees immediately why, right from the beginning, this organization has tried to be all things to all men. Put simply, MTC has had to supply everything quickly because previously there was . . . nothing.

This is not strictly true. After its reorganization in 1948, the Winnipeg Little Theatre produced eight nights of theatre during an eight-month season — four plays of two nights each. Not, you will agree, much more than a starvation diet for a city which today patronizes approximately 100 evenings during the same eight months. As for education in Theatre, there was nothing. Talented young people got into plays, obtained enough experience to guarantee they would have lots to unlearn, went away to England for training, and were heard from intermittently by means of exotic postcards sent from even more exotic addresses as they made their way in the theatrical world. Except on rare visits home, they were never seen in Manitoba again. There was simply nothing for a person of their gifts and training to come home to. Of professional theatre there was simply nothing at all in Manitoba.

"Reclining Figure", presented January, 1960
Setting designed by Z. Peter Kaczmarek



In the summer of 1957, an event took place that was to change this state of affairs by setting in motion a chain of developments whose inevitable outcome was the formation of the Centre. At that time the Dominion Theatre was made available by an anonymous benefactor to the Winnipeg Little Theatre. Headed by a professional director whose employment had been made possible by a grant from the Junior League of Winnipeg supplemented by private contributions, the Little Theatre moved into the Dominion with plans for an expanded season of twenty instead of eight evenings. Almost simultaneously a semi-professional group, Theatre 77, was formed with the intention of presenting 42 performances of five different plays. These two plans, carried out simultaneously during the 1957-58 season, swelled the total audience in one season from 6,000 to 36,000. Despite this success, both groups felt keenly the need for a school of theatre to teach local actors the fundamentals of their craft.

A conference between the leaders of Theatre 77 and the Winnipeg Little Theatre during the summer of 1958, originally called to discuss the co-operative formation of a school of theatre, led instead into a discussion of aims of the two organizations. The discovery of large areas of agreement resulted in a discussion of means of advancing the cause of theatre on the prairies. Before the summer ended the amalgamation of the two groups into the Manitoba Theatre Centre was completed. John Hirsch and Tom Hendry, director and manager of Theatre 77, accepted similar posts with the new organization, whose Board of Governors was formed out of the Board of Directors of the Winnipeg Little Theatre. It was one of those rare and happy occasions when professionals and amateurs got together in constructive evolution.

During the Centre's first season audiences jumped to 45,000. The current 1959-60 total will probably reach 55,000. National recognition of the unique nature of the Centre idea came with The Canada Council's grant of \$12,000.00 towards the 1959-60 operations. Then in January of 1960, the most promising aspect of the project came into being with the opening of the Manitoba Theatre School with Esme Crampton, nationally-known teacher of speech and drama as Director. As before, response was immediate and overwhelming. Classes were filled up and waiting lists of applicants had to be established.

Manitoba Theatre Centre's development over the past two and one half years has been so rapid that recognition of the role the Centre is playing has not been forthcoming, except in the case of The Canada Council grant. Symbolically, the Centre will begin next season in the completely redecorated and rebuilt Dominion Theatre, after spending one season in exile in the Beacon Theatre. The organization that returns to the Dominion will be as different from the organization that moved out last season as will the new Dominion be from the old.

Perhaps it's those wide skies, or those miles of endlessness all around us, but here on the unpromising prairies the Centre idea has taken root, and from all appearances, it's a hardy Canadian perennial.

Ballet

by

Kathleen Richardson

President

The Royal Winnipeg Ballet

THE STORY OF THE Royal Winnipeg Ballet is a history of the evolution of a group of hardworking amateurs into a professional company which has achieved and maintained national and international fame.

In 1938, Gwenneth Lloyd came from England to found The Canadian School of Ballet and the Winnipeg Ballet Club, the latter an organization of young dancers devoted to the objective of forming a permanent repertory ballet company to popularize ballet in western Canada and to raise the standard of the dance in Canada. Two short years later, the Club gave its first major performance and, within another two years, was playing to capacity audiences.

In 1945 the Company was invited to appear in Ottawa and, in the same season, toured western Canada. During the next three seasons eastern cities as well as those of the west saw the Winnipeg Ballet perform: public and critics alike acclaimed it a national "find". In the spring of 1948, the Ballet Club organized the first Canadian Ballet Festival in Winnipeg, bringing groups from Toronto and Montreal.

By March of 1949, a serious deficit made it necessary to incorporate the Ballet as a non-profit Company. A Board of Directors took over the financial affairs and, for the first time, the dancers were paid. Thus came into being Canada's first professional ballet company. The Board, which has since managed to maintain the Company on a very limited budget, has been greatly assisted in its task since 1957 by annual grants from The Canada Council.

Many of the architects of Canada will remember the School of Architecture's annual Beaux-Arts Ball at which members of the RAIC were honour guests. On this occasion the Winnipeg Ballet presented for the first time "The Shooting of Dan McGrew", which Gwenneth Lloyd choreographed for the occasion. Subsequently it became one of the Company's most celebrated ballets.

In 1951, the Company appeared by Royal Command before their Royal Highnesses Princess Elizabeth and the Duke of Edinburgh. Two years later, when Her Majesty Queen Elizabeth II granted the Company permission to include the word "Royal" in its corporate name, it became the first ballet company in the

Another hardy Canadian perennial is The Royal Winnipeg Ballet, Canada's oldest professional ballet company which stands today on the threshold of its twenty-first birthday. To some it seems astonishing that this creative art should have flowered so brilliantly on the prairie: its success is due in the first instance to its founder, Gwenneth Lloyd, and secondly to the rigorous devotion of its artists and its citizen workers.

British Commonwealth to be so honoured. 1953 also saw the filming of "Shadow on the Prairie" by the National Film Board for coast to coast distribution; and the Royal Winnipeg Ballet had the distinction of being the first Canadian ballet company to appear in the United States when it danced before capacity audiences in Duluth, Minn.

In 1954, after a coast to coast Canadian tour, the Company toured 28 cities in the U.S.A., including a week's engagement in Washington, D.C. with Alicia Markova as guest artist. Not only was this the first tour of a Canadian ballet company in the United States, but it was also the first occasion on which an all-Canadian ballet was presented before American audiences — "Shadow on the Prairie" with choreography by Gwenneth Lloyd, musical score by Robert Fleming, settings by John W. Graham, and costumes by Stuart MacKay.

Following this triumphal tour, the bright hopes of the Company seemed doomed when fire destroyed everything it owned; however, after a year of rebuilding its financial backing and equipment, the Company was able to resume production.

The present director, Arnold Spohr, is a pupil of Miss Lloyd and a former leading dancer and choreographer with the Company. His "Ballet Premier", produced in 1950, marked the arrival of Canada's first native-born and trained choreographer. Under his direction, the Company continues to present contemporary ballets and classical excerpts with the vigour and freshness which audiences have come to regard as the Royal Winnipeg Ballet's special style and asset.

The current repertoire includes works by Miss Lloyd, the founder of the Company, Brian Macdonald, Heino Heiden and Michel Conte of Montreal, Arnold Spohr, the director, as well as the distinguished choreographer, Ruthanna Boris, of New York City and Robert Moulton of Minneapolis.

Next season will be the Company's twenty-first. To mark its official coming-of-age, extended tours to eastern Canada and the U.S.A. are planned. As a prelude to this momentous season, we look forward with distinct pleasure to our performance for the Royal Architectural Institute of Canada when it meets in Winnipeg next June.

"Brave Song"

Choreography and Costumes, Robert Moulton
Music, James Aliferis, based on Indian tunes
Decor, Z. Peter Kaczmarek



"The Darkling"

Choreography, Brian Macdonald
Decor and Costumes, Peter Symcox



Turning from the performing arts of the theater, let us consider the literary horizons of Winnipeg. James C. Reaney, who has been teaching creative writing at The University of Manitoba since 1949, has reviewed and appraised the field admirably. However, with characteristic modesty, he has omitted mention of his own achievements as a writer: two volumes of verse; the play, "The Killdeer", recently performed in Toronto; a more recent poetry recital at Hart House Theater, which was made possible by a grant from The Canada Council, and a semi-annual publication called "Alphabet", devoted to the iconography of the imagination. The first two issues of the latter are being devoted largely to the works of Winnipeg writers, thereby giving public recognition to both critical and creative writers who have not been receiving attention elsewhere. Obviously Mr Reaney has, during the past decade, made very significant contributions to the Winnipeg scene.

WINNIPEG HAS PRODUCED several of Canada's most interesting writers — I refer to Gabrielle Roy and Adele Wiseman — but it does not seem to be the rule with Winnipeg that creative writers of the most compelling interest live out their lives here. As a consequence, when we talk about writing in Winnipeg we talk about major figures who have left, but who owe both the subject matter and the shape of their work to this city; we then talk about minor figures and then just plain figures who have stayed.

Quite obviously Winnipeg is one of the most fascinating cities in either Canada or North America. It has a combination of fantastic bleakness in nature with equally fantastic richness in human variety that is very hard to beat. This latter was borne out in the short masque devised by John Hirsch and presented to the Queen and the Duke of Edinburgh last summer.

Another example of imaginative literature created in this city, also standing half in the world of the word and half in the world of picture, is Winnipeg born Roman Kroiter's National Film Board short "Paul Tomkowicz: Street Car Switch Sweeper".

Of course Winnipeg has behind it something that reinforces one's feeling that it is very much a place — it has a great deal of time that is very much a time. To describe this time the city has had, with great good fortune, such painstaking and perceptive historians as W. L. Morton, Margaret MacLeod and Kenneth McNaught. Morton's *Manitoba: a History* is an extremely Manitoban sort of thing. The reader receives a very sturdy impression of a river thin civilization with twenty-eight windmills and a peculiar French, Indian and Scottish civilization that suddenly expanded into a rectangular Anglo-Saxon and Ukrainian grain economy. The analysis of contemporary Manitoban society with its perceptive comment that the Anglo-Saxons seem to have lost initiative while the other races here have emerged with unsuspected force — this analysis is the sort of shrewd observation out of which good novels are eventually made. Mrs Margaret MacLeod's work as a historian is also extremely valuable culturally. Her *Letters of Letitia Hargrave* is a model of how such things should be done; and her latest book, an anthology of old Manitoba ballads, shows the sort of literary mind at work which one wants to see in every civilization — a mind sensitively dedicated to the voices of the past, finding out ever so carefully what we were like then so that we can know what we are like now. Kenneth McNaught's handling of that very important Winnipeg and Canadian figure, J. S. Woodsworth, shows not only what Woodsworth finally means for all of us but also what the city that produced him means for all of Canada. Winnipeg, in this historian's viewpoint, seems to be a sort of abstract testing ground of class conflicts, social mixings and all social endeavours and impasses for the rest of Canada in a way that Toronto or Vancouver, more finely inmeshed in surrounding complexities, could never be.

Poetry in Winnipeg has simply not kept pace with the historical efforts and the spectacular efforts we have been discussing. Thecla Bradshaw writes very abstractly and ingeniously about writing very abstractly and ingeniously. Myra Lscheko-Haas is a poet with a great deal of wit and humour; Thomas Saunders can occasionally be quite moving in his poems about rural Manitoba and he is a local Robert Frost, I suppose. There may possibly be some potentially more breath-taking poets out at the University, but it is perhaps too soon to say. Despite the Winnipeg Poetry Society the city has far to go before it catches up to Montreal, where one has always felt that poets seem to happen very naturally.

Prose fiction has, it turns out, really been the most notable literary product of the town. One has only to open Gabrielle Roy's *Street of Riches*, her novel about growing up in St Boniface, to meet a very rich sensitive mind that can change the simplest Manitoba experience into a classic and compelling art experience. I have looked at the Seine River in St Boniface a great many times and never really seen it until her description of it summed it up forever. Gabrielle Roy grapples with the obvious aching problem of the bleakness here and really convinces you, as other prairie novelists never do, of her love's solution. In the end what impresses one most about this writer's work is her skill, her powerful technique; Manitoba should be extremely proud of its luck in having not only sat for Frederick Philip Grove but also for this artist who, as I say, triumphantly puts the so-called real world of life here into the much more real world of art. Adele Wiseman's novel, *The Sacrifice*, shows the same rare skill. This book achieves a power that finally expresses one's intuitions about the city's magic. The scene at the end of Miss Wiseman's novel, in which the grandson visits his grandfather in the grounds of the mental asylum, is the best scene in Canadian fiction yet achieved. But although Adele Wiseman and Gabrielle Roy sometimes return to Winnipeg they show no signs of staying here and one doubts if they would be wise to from the creative point of view. But still Winnipeg seems, when one reads their books, to have been the best place in Canada, creatively speaking, to come from. The problem is really summed up on the very last page of Gabrielle Roy's *La Petite Poule D'Eau*, her novel about Manitoba's interlake region:

"À lui aussi, la vieille civilisation parut lointaine, aimable, gracieuse.

Plus il était monte dans le Nord, et plus il avait été libre d'aimer."

The farther north you are — and Winnipeg is north — the farther you are from the world where art is easily supported by society: but then the farther north you are the easier it is to find the love that always stands at the source of the greatest art and the most alive societies.

Music

by

S. Roy Maley

Music Editor

Winnipeg Tribune

Winnipeg has been described as the most musical city on the North American continent. As in all the arts, our city has given the world many outstanding musicians — both performers and creators. Locally, music plays a major role in the cultural life of the city. Not only can it boast of the largest Music Festival in the British Commonwealth, but it can also point with pride to a Symphony Orchestra, to a number of outstanding choirs and other music organizations, to dozens of individual performing artists, and to some notable composers. Roy Maley has probably heard more concerts and performances over a greater number of years than any other citizen: he is eminently qualified to review the musical world of Winnipeg for us.

THOSE INTERESTED in the growth of Canadian culture need no reminder of the part being played by the numerous ethnic groups that form a part of our population. Winnipeg is especially fortunate in having in her midst approximately forty different nationalities. In many quarters of the city, representatives of these various nations, city-bred and foreign-bred, are active in doing a great service in keeping up their old and sacred traditions, adding a color of their own to the cultural tapestry of Canada, and pointing with rightful pride to the fact that they can call themselves citizens.

Greater Winnipeg, with its fourteen suburban municipalities and cities has a total population of over 400,000. It is significant to observe that, for its size, Winnipeg has contributed to the larger centers in Canada, the U.S. and abroad, more "name" artists in the realms of the arts than any other city in Canada.

Up until 1948 there were spasmodic efforts over the years to establish a major symphony orchestra in Winnipeg, but all schemes were eventually dropped after one or two seasons' operation. In 1946, several civic organizations and friends of music, who were interested in the formation of a symphony, waged an intensive campaign to start such a project. On December 18 of that year, with Czech-born Dr. Walter Kaufmann engaged as permanent conductor, the first concert of the newly-formed Winnipeg Symphony Orchestra was held.

Working under adverse financial and personnel difficulties, with lack of contracts which would have provided security and steady employment for players, the Symphony gradually won public support and encouragement. In 1958, Toronto-born Victor Feldbrill was engaged as permanent conductor to replace Dr. Kaufmann, who had resigned to take a post in the University of Indiana. At the same time, 45 musicians were engaged on a 24 weeks' contract and this nucleus group now presents "extra" concerts each season, apart from the ten subscription concerts given by the full ensemble of 75 musicians. Promotion of school concerts has resulted in some 16 concerts being presented during the season just ended within the schools and local theatres.

The Canada Council has come to the aid of the Symphony and has provided funds for free noon-hour concerts and for tours to other Manitoba and Ontario cities.

The Men's Musical Club is the foremost musical organization in the city. This Club sponsors the annual musical competition Festival, which has just finished its 42nd session with great success. The Festival is the biggest project of its kind in the British Commonwealth. More than 20,000 individual competitors, including members of school and adult choirs, enter the various competitions which are held daily for two weeks from 9 a.m. to well nigh midnight in five halls spread throughout the city.

Besides the Musical Festival, the Men's Musical Club sponsors a Male Voice Choir; two boys' choirs, juvenile and senior; and the largest choral group in the city, the Philharmonic Choir, comprising 175 voices. Lucien Needham, a young English conductor, directs the Male and the Philharmonic choirs.

The Women's Musical Club, which will observe its 62nd anniversary during the coming season, is a major musical group and has the distinction of being the second oldest group of its kind in Canada. The Wednesday Morning Musicales, formed 27 years ago, is notable for being the only musical group using Winnipeg talent for its twice-monthly recitals during the season.

The largest commercial musical organization in the city is operated by A. K. Gee, whose father, the late F. M. Gee, started the Celebrity Concert Series 49 years ago. Hundreds of famed solo musicians, choral, orchestral and performing groups have appeared in Winnipeg under the Gee auspices.

The Jewish Musical Club holds a high place in the musical history of Winnipeg. It operates the Jewish Community Choir and Orchestra. The Jewish Women's Musical Club is a thriving organization and sponsors annual competitions in drama and music. Money scholarships are given in the annual "Young Artists of Tomorrow" project.

Few citizens of Winnipeg are aware of the tremendous activity which swirls around various sectors of the city, for few of the forty ethnic groups perform beyond their own precincts, seldom appearing in the principal down-town theatres and halls.

The Icelandic and Ukrainian settlers were perhaps the pioneers among the ethnic groups, with Jewish peoples forming the third major unit. The Icelandic Choral Society and Male Voice Choir were popular for many years; but, like other foreign-Canadian groups, they have ceased regular annual appearances mostly because of the reduction of male singers occasioned by the war years.

Ukrainians in Winnipeg form the largest group of this race in the world outside their native soil. Musical and folk art abounds throughout many societies and groups too numerous to mention. There are at least ten male voice choirs, foremost among them being the group conducted by W. Bohonos. This choir has made recordings of folk songs.

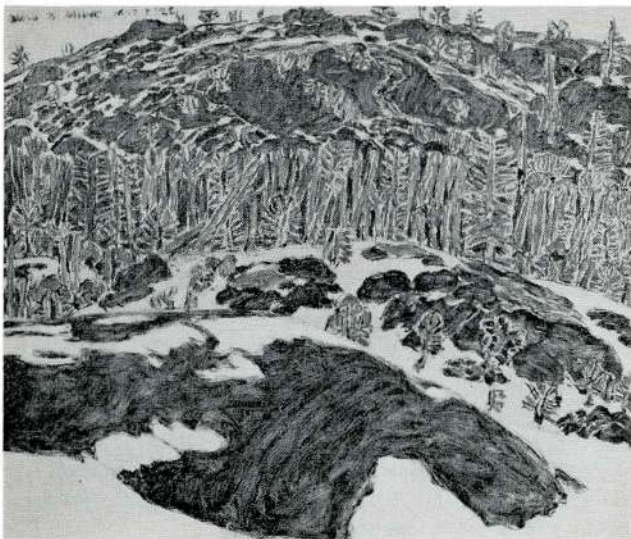
Notable among other ethnic musical organizations are the Mennonites, the Swedish Male Choir, the Norwegian Male Choir, the German-Canadian Association, the St. Andrews and United Scottish Societies, the St. David's Welsh Society, the Commun Na Gardhlig, l'Association d'Education des Canadiens Francais du Manitoba and Les Gais Manitobains. Most recent group to win fame is the Winnipeg Folk Singers, a mixed choir of 16 voices. All enrich the musical tapestry of Winnipeg.

In his perceptive history of Manitoba William L. Morton summarizes the story of painting and sculpture: "Art had not flourished in the Province as music had done; it had not found a similar popular basis, nor uncovered the talent that the stage and music had. The Winnipeg Society of Artists had since 1903 ministered to the interests of a small group; since 1913 the Winnipeg School of Art had led a struggling existence until it was so fortunate as to obtain an instructor in 1924 — Manitoba-born Lemoyne Fitzgerald — often associated with the Group of Seven, who became Principal in 1929. His influence as teacher and artist was in the direction of bolder and more original work, but no one man could overcome the disadvantages of the lack of an art gallery and of a public of discrimination and taste."

As the concluding chapter of this review, the Director of the Winnipeg Art Gallery, Dr Ferdinand Eckhardt, provides a definitive catalogue of significant paintings and sculpture to be found in Winnipeg collections. Although founded in 1912, the Winnipeg Art Gallery Association did not present a coordinated program until 1933 when it moved into its present quarters in the Civic Auditorium. Today the Gallery flourishes under an eminent international museum authority, supported by a strong Board of Governors and an active Women's Committee.

ALTHOUGH WINNIPEG is usually considered to be one of the younger cities of Canada, its activities in the field of the visual arts are astonishing. The Winnipeg Art Gallery has an amazingly active program of changing exhibitions, although it has not yet managed to build a proper permanent collection. Winnipeg has been privileged to see some of the most interesting displays of both old and modern art from practically every part of the world as the result of the Gallery's program of some forty different shows per year. In addition there are a number of interesting works in its permanent collection.

Particular attention in the collection of sculpture in recent years has resulted in the acquisition of a Greek marble "Head of a Bearded Man" (4th century B.C.); the wooden Nuremburg "St George" of 1490 is a good example of the art of Gothic wood-carved altar pieces; the "Reclining Figure" by Henry Moore represents this great English contemporary; the bronze of "Femmes de Caughnawaga" by Suzor-Cote is probably one of the best sculptures this French Canadian artist has created. Anne Kahane, the gifted Montrealer is represented by the wood polychrome "Rain"; and the large bronze "Adam and Eve", which the Gallery commissioned Cecil Richards to create as the result of funds granted for this purpose by The Canada Council, and the little terra cotta "Girl", by Leo Mol, represent these two local artists.



Painting and Sculpture

by

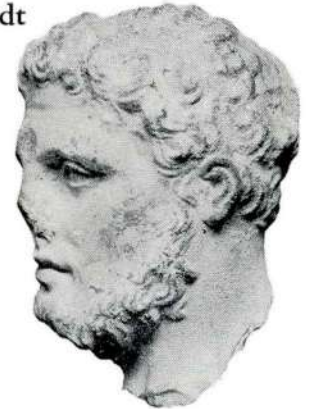
Dr F. Eckhardt

Director

Winnipeg

Art

Gallery



In painting, the Art Gallery is very fortunate in having a group of Late Gothic panel paintings permanently loaned by Lord Gort. This group of paintings is unique in Canada. Only a few of the artists are known by name, principally Cranach who is represented by a portrait of a fashionable lady of his time and the "Portrait of John I of Saxony". Other artists represented in the collection are at least known to the art world through some of their works, such as the masterpiece, "Adoration of the Magi" by the Cologne master "der Heiligen Sippe", named after the picture in the Cologne Museum. Melchior Lorch was probably the painter of a picture of a most exciting architecture of the 1560's with figures of great elegance and dignity. Other panels are good examples of the highly developed art in the days of Durer and Grunewald.

A landscape by Richard Wilson and "A Vicious Bull" by James Ward are examples of 18th and 19th century English art, as well as a gouache by John Piper and a "Moorland" landscape by James D. Innes representing more recent English art.

A small group of internationally known contemporaries like "La Jetee à Trouville" by Raoul Dufy, the excellent "Flower Piece with Lovers" by Marc Chagall and the "Flower Still Life" by Maurice de Vlaminck form the beginning of a collection of more renowned 20th century artists.

The major emphasis of the permanent collection has always been on Canadians. Artists like George A. Reid (his "The Story" has probably been the most popular picture at the Gallery for many years) and Maurice Cullen represent the more academic ideas, while a "Trinidad Landscape" by James W. Morrice, "Cove" and "Tree Movement" by Emily Carr and two oils and a water colour by David Milne show some of the more generally recognized recent Canadian art. The Group of Seven is well represented by works of A. Y. Jackson, Arthur Lismer, Lawren Harris ("The Cloud, Lake Superior"), Thoreau MacDonald and Frederick H. Varley.

The greatest emphasis is on contemporary painters and here we find not only Winnipeg very well represented by names like Jack Markell, Jim Willer, George Swinton, Kelly Clark, Ivan Eyre, Tony Tascona, etc., but also some of the best from the West — Maxwell Bates, Jack Shadbolt, Bruno Bobak, John Korner, Gordon Smith, B. C. Binning — as well as some of the best from the East — Charles Comfort, Henri Masson, Goodridge Roberts, William Roberts, Jacques de Tonnancour, Graham Coughtry, Harold Town, and Tony Urquhart.

A special feature of the Winnipeg Art Gallery is a Memorial Room to the great Manitoba artist and probably one of the best Canada has produced, Lionel Lemoine FitzGerald, the painter of the prairie, of simple landscapes, of apple-still lifes and latterly of abstracts. He died in Winnipeg in 1956 and his Memorial Show which toured Canada in 1958 and 1959 almost created a sensation.

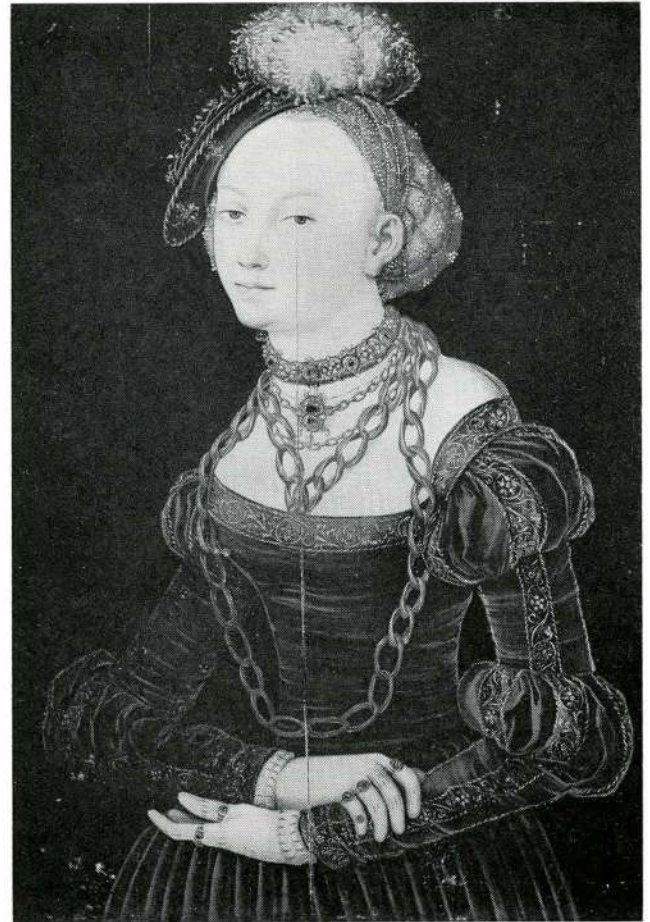
The visitor to Winnipeg may be amazed to find several outstanding private collections in Winnipeg. The home of John A. MacAulay, Q.C., Trustee of the National Gallery and recent President of the World Red Cross, contains one of the finest, if not the finest, collections of French Impressionists and Post-Impressionists in this country. There can be found superb examples of the work of Corot, Degas, Monet, Signac, Pissarro, Cezanne, Van Gogh, Renoir up to early Picasso; the Fauves — Derain and Vlaminck, and the Nabis — Bonnard and Vuillard, even Rouault, Utrillo and Dufy. In addition, he owns portraits by Romney and Ramsay, a few charming "Flower Pieces" by Fantin Latour and magnificent sketches by Constable. In the Canadian Room of his home and in his office can be found one of the finest collections of Canadian artists, starting with Kreighoff and continuing up to Borduas and Riopelle. Dr MacAulay's garden displays some of the finest sculpture by Rodin, Maillol, Kolbe, Gerhard Marcks, Zadkine and Lipchitz.

The home of Peter Curry contains a remarkable collection of modern international art which rather starts where MacAulay stops collecting, with names like Kandinsky, Klee, Dufy, de Chirico, Buffet, Degas, Archipenko, and others.

It is a delicate task to describe private collections, for not all owners like to have their hidden treasures known to the general public.

No visitor to Winnipeg should miss visiting the Hudson's Bay Museum. This excellent historical collection of Indian and Eskimo art, with artistic samples of the work of early settlers of the west, is well worth seeing. Eskimo carvings are displayed for sale at both the Hudson's Bay Retail Store and the Canadian Handicrafts Guild shop.

The School of Art at The University of Manitoba, formerly the Winnipeg School of Art, is a very vital centre for artists in training. Among the professors who have gained considerable recognition as artists are William McCloy, Richard Bowman and Robert Nelson



in the past; and Cecil Richards (the sculptor), George Swinton, Robert Bruce, Nick Bjelajc and Ivan Eyre, who are presently teaching at the School under the directorship of Richard Williams. Each year the students of the School join with the Women's Committee of the Art Gallery to organize and present The Winnipeg Show which has become one of Canada's outstanding jury shows of contemporary Canadian art.

This survey would not be complete without mention of the role which The University of Manitoba has played in fostering and stimulating the development of the arts and letters in Winnipeg. Members of the teaching staff have been active as creative artists, as performers, as leaders, and as supporters of the arts through their wholehearted service on boards of directors, committees and sub-committees of the many cultural organizations of the city. Since the early 20's the students' Glee Club and Stage Society have presented performances in which professional and amateur directors, actors, soloists and musicians, designers, backstage technicians, etc. have been introduced to and have gained experience in the performing arts of the stage and concert platform. These young enthusiasts have in many instances become the backbone of productions of the old Little Theatre, the Manitoba Theatre Centre, the Winnipeg Summer Theatre, and many radio and TV programs. (With justifiable pride, I can point to the active participation of the students and staff of the School of Architecture over the past thirty years: the present high standard of stage design was established and has been maintained by my colleagues.)

There is no doubt that the arts and letters have achieved considerable distinction in Winnipeg: the mingling and fusion of many peoples have taken place, and the currents set in motion thereby give every indication that the cultural arts will continue to grow and expand. ❧

Opposite page, above
 "Head of a Bearded Man"
 Greek marble, 4th Century BC

Below
 "Rocks in Spring"
 by David Bruce Milne

Right, above
 "Portrait of a Young Lady"
 by Lucas Cranach the Elder

Upper Fort Garry

Winnipeg

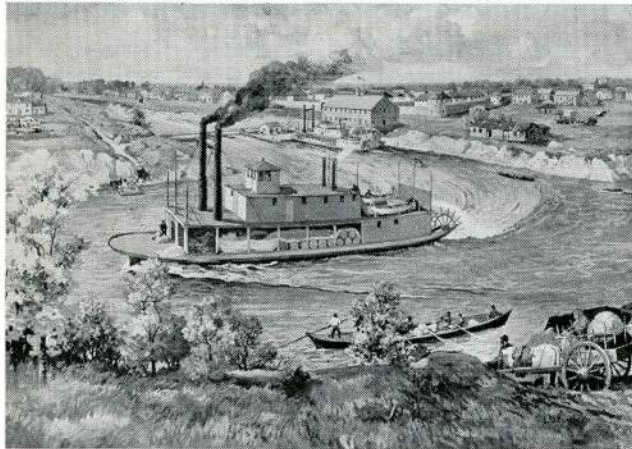
"THE GATE" AND ITS BACKGROUND

FORT GARRY GATE, nestled in Fort Garry Park, across the street east from the Fort Garry Hotel, is an historical landmark seen and photographed with ease.

A perusal of the map shows the historical significance of the junction of the Red and Assiniboine rivers. Here was located La Verandrye's Fort Rouge, built in 1738; The North West Company's Fort Gibraltar No. 1, built in 1807, destroyed in 1816 and rebuilt in 1822 on a new site west of the site of No. 1. This fort was renamed Fort Garry by Governor Simpson soon after it was built and following a visit of Nicholas Garry, a member of the Hudson's Bay Council, to the settlement.

In 1835, with the appointment of Alexander Christie as Governor, a start was made on the second Fort Garry. The buildings of the old evacuated fort remained until 1852, when, as parts were falling into the river, they were demolished. This second fort enclosed a space 240 feet from North to South, and 280 feet from East to West, the heavy walls being constructed of stone, with four large round bastions at the corners. The buildings included the officers' and employees' residential quarters, warehouses and retail store. The large main gate faced the river, and was not far back from the bank of the stream. There were two postern gates,

PAINTING BY J. D. KELLY FROM THE CONFEDERATION LIFE COLLECTION



Winnipeg in 1872. The Hudson's Bay Trading Post with Fort Garry behind it.

COURTESY HBC



Red River cart. The original version of this utility conveyance of the prairies was constructed entirely of wood.

one of which was in the East Wall, beside the retail store; the other gave access through the main wall to the North East Corner.

Several years later an addition was made on the North End to provide quarters for the Resident Governor of the Company, which building served as the residence of Manitoba's Lieutenant-Governors until the building now known as "Government House" was erected. The high walls of this additional enclosure were constructed of large solid square oak logs, laid horizontally in the form of crib work, the space between the outer and inner oak walls being filled with earth. It was at this time that the gateway, still remaining, was erected.

On the map is seen "Hudson's Bay Flats", where the Red River carts were loaded for trips into the prairie.

In 1882 the Company sold the fort and the ground upon which it stood, and the area was divided into city lots. The lot upon which the "Gate" is located was conveyed to the City of Winnipeg, to remain, a simple relic of Winnipeg's early days.

So the Upper Fort existed from 1835 to 1882. The Governor's Residence was the centre of many a jollification, on the occasions when he invited visiting and resident officers and other guests to grand spreads, the table being well supplied with choice tid-bits in the form of game obtained from all parts of the Company's territory. Reindeer tongues and ptarmigan from the far north, buffalo tongues and joints from the prairies, smoked bear hams, carefully prepared pemmican of deer and buffalo meat, moose nose, beaver tail, sturgeon and whitefish, and other delicacies were provided for the guests, to be washed down by the best teas, and generally drowned with the choicest of liquors and wines taken from the well stocked cellars of the fort. Now and then, in those days, travellers on their way to the west or far north, in pursuit of exploration, scientific observation or hunting, passed through the settlement, and always received a hearty welcome at the fort, and in recording their experiences, invariably dwelt on the hospitality extended to them at Fort Garry.

An interesting sidelight, as to the traveller's means of reaching the fort from Lake Superior, was the necessity to make forty-seven portages before the journey was completed.

In 1831, the Hudson's Bay Company built, at the head of deep water navigation, just below St Andrew's Rapids (where St Andrew's Locks now exist), a large and costly establishment which became known as the Stone Fort, or Lower Fort Garry. This fort is in a state of good repair and can be seen by all visitors. At the fort is a full size replica of the York Boat, used to freight supplies from the far end of Lake Winnipeg to the Lower Fort.

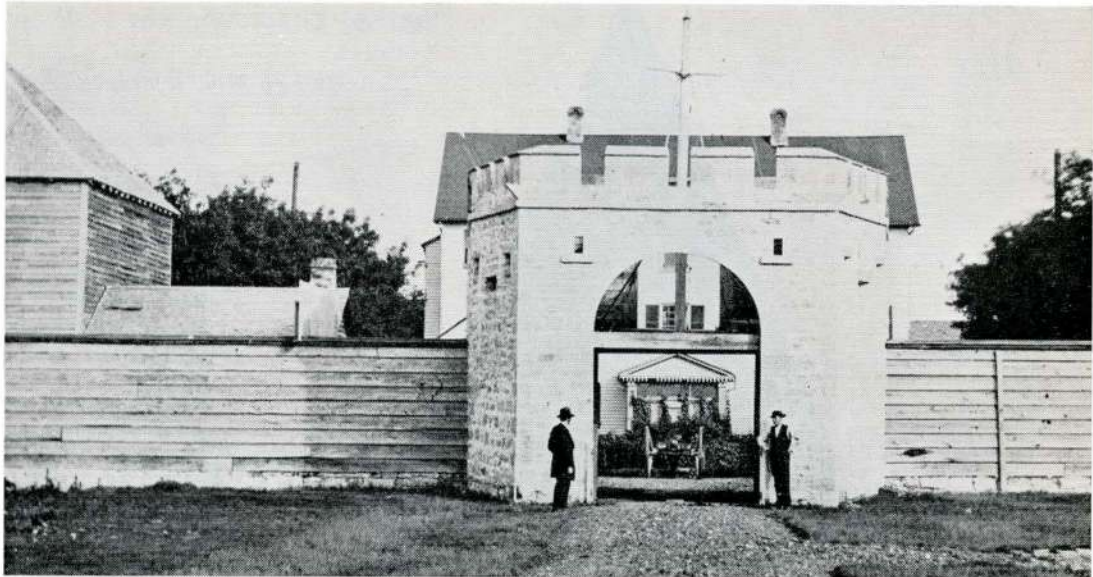
The Manitoba Editorial Board are indebted to the Hudson's Bay Company for photographs, and to a paper given by the late Charles Napier Bell, a past President of the Manitoba Historical Society, as the basis for this article on the "Gate".

R. A. TALBOT, COURTESY HBC



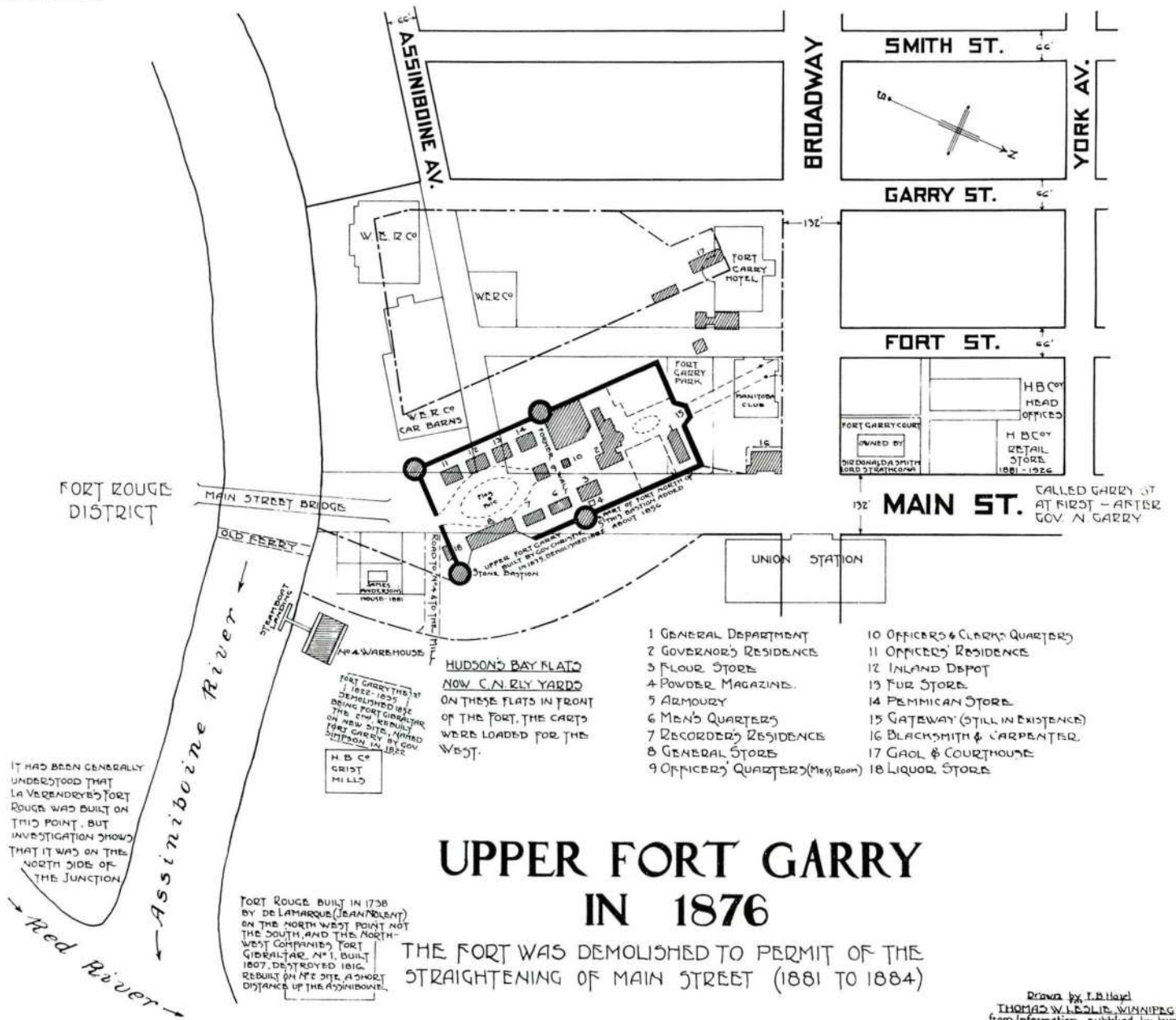
The York Boat, which carried trade goods and furs. The last one in existence is in Lower Fort Garry.

COURTESY HBC



Gateway of Upper Fort Garry, the oak wall and Governor's Residence in 1880.

COURTESY HBC

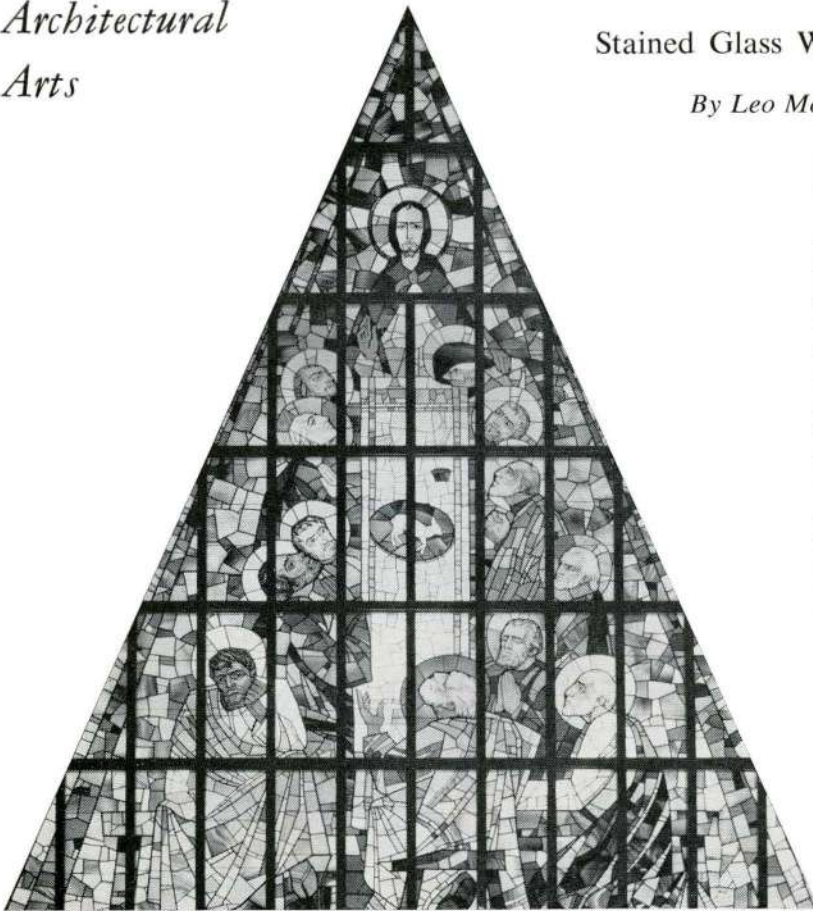


UPPER FORT GARRY IN 1876

THE FORT WAS DEMOLISHED TO PERMIT OF THE STRAIGHTENING OF MAIN STREET (1881 TO 1884)

Drawn by I.B. Lloyd
THOMAS W. LEOLIE, WINNIPEG,
from information supplied by him
April 1926

By Leo Mol, Winnipeg



HENRY KALEN

Stained glass windows as an adjunct to ecclesiastical architecture retain their fundamental purpose of admitting light to the interior. Being architectural in spirit, the window at Wentworth United Church presented the difficulty which was created by the unusual triangular shape required. It was necessary for the artist to break away from the traditional horizontal composition of *The Last Supper*, and to create an entirely new scheme which would fit into the triangular opening. An attempt has been made to create the movement toward the focal point of the composition—the Christ, and, at the same time, to avoid too great a deepness which might have created the impression of an indented surface to the triangular composition. The light and shadows on the figures were employed as means of creating greater contrast in displaying the colours. The background is purposely devoid of any architectural detail, and is merely used to accentuate the grouping of the figures.

Leo Mol

Metal Sculpture St John's College Chapel University of Manitoba

Moody, Moore & Partners
Architects & Engineers

Design: S. G. Elsey, of Architects' Office

Executed by Leo Mol, Winnipeg

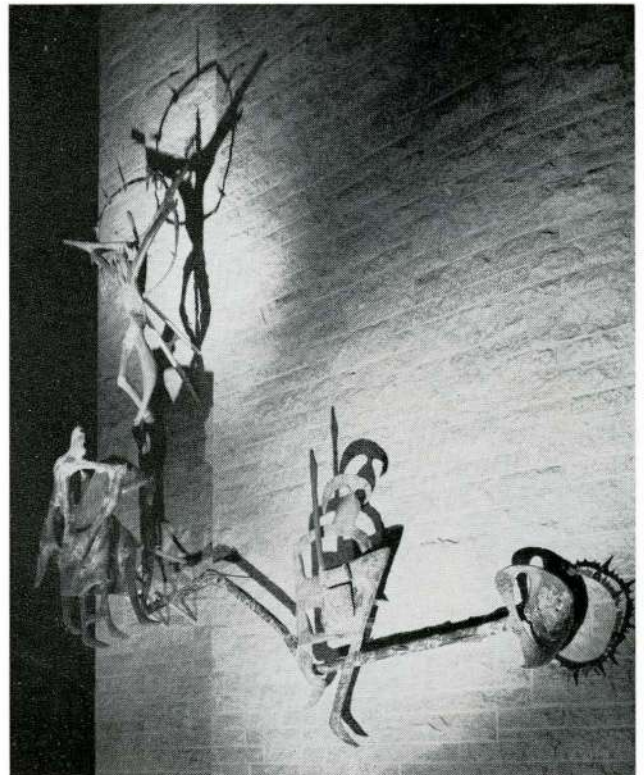
The sculpture on the north gable of St John's College Chapel depicts the scene on Calvary when St John was given charge of Mary, the Mother of Jesus. John is seen spreading his protecting cloak about the shoulders of the distraught little figure of the Mother, who lifts an anguished arm to her head as if to ward off the unbelievable spectacle of the Saviour's humiliation and agony.

The body on the Cross is that of a suffering man sobbing in gulps of air as it writhes in the throes of relentless asphyxiation. But the face under the Crown of Thorns has already assumed its former character, the face of God — "which no man hath seen at any time." It has become an aperture through which to see the glory of the realm of heaven.

The Roman sentry turns away. He is shown to be little more than an animated armoury, with a bulbous robot head, a symbol of ageless indifference and Godlessness. At the end of the lever arm the eclipse of the sun punctures the scene and underlines the temporary nature of the act of "blacking-out" the "Light of the World".

The material used was brass sheet roughened up with splinters and drops of molten metal.

S. G. Elsey



HENRY KALEN

HENRY KALEN



Carved Entrance Doors St George's Church

Wood Carvings by Cecil Richards

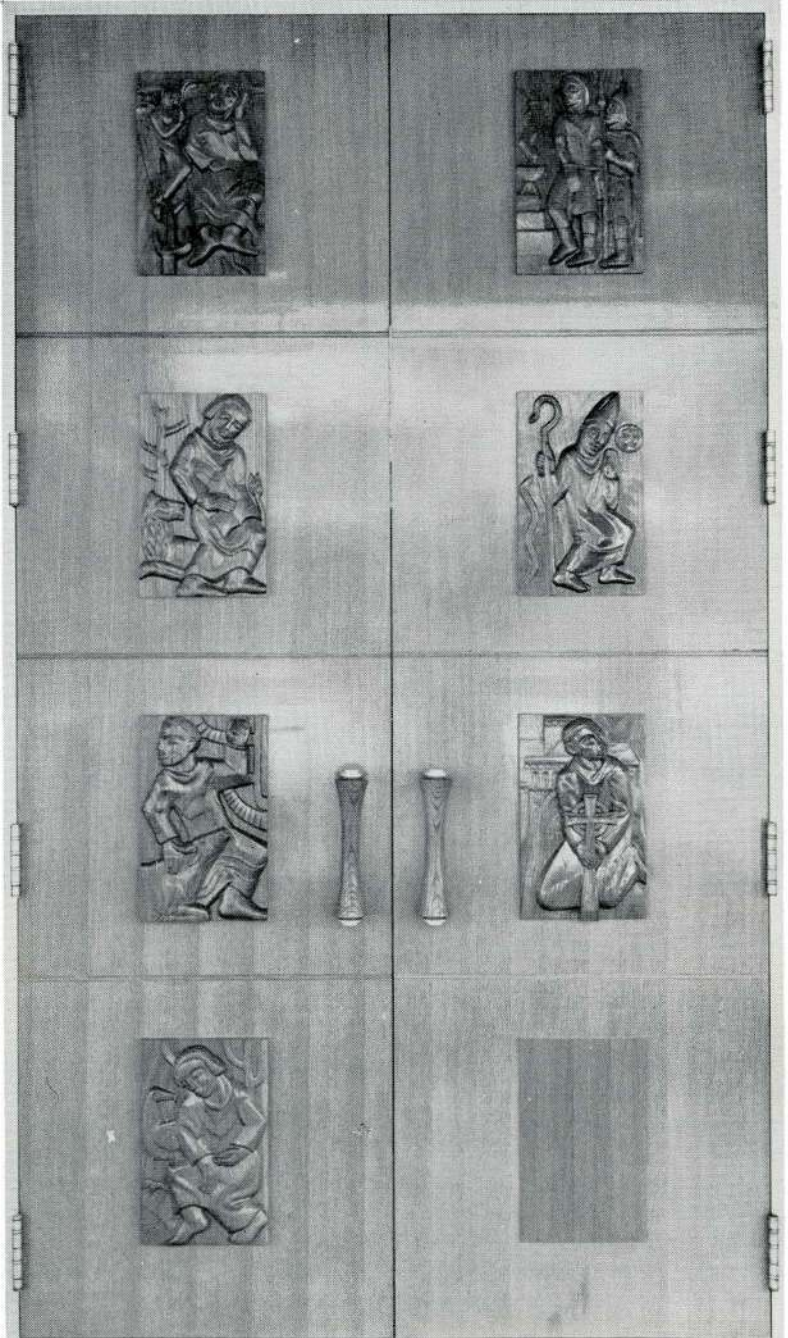
*School of Art
University of Manitoba*

*Church Architects
Green Blankstein Russell Associates*

The first of two pairs of carved oak entrance doors. The subject matter was chosen by the minister of the church and a committee. I made several sketches in clay before commencing carving in wood. All panels are carved in oak about an inch in relief. After the decisions on subject matter I was given complete freedom as to style.

On the pair of doors illustrated the first four panels represent the Four Gospels and the second four early Christian Saints. The second pair of doors, yet to be completed, will carry four panels representing the Four Churchmen of the Reformation, and four panels on a subject yet to be chosen.

Cecil Richards



HENRY KALEN



WHITE STUDIOS

Sundial and Screens, Polo Park Shopping Centre

Sculpture by James Willer

The sundial exploits a material, new, I think to works of art in this city — prestressed concrete. In that connexion, I would like to acknowledge the part played by Ron Banks, the engineer for Supercrete.

My underlying aim was to bring to the Polo Park Shopping Centre a distinctive and interesting piece of sculpture, for it is sculpture primarily. I could have made a conventional sundial, a triangular blade rising from a flat base marked off in hours. However, I wanted to depart from this rather uninspiring form and to substi-

tute a more dramatic one — a heavy blade passing through the centre of a large ring, poising both at impressive angles. I think that after I decided to face the blade from any physical contact with the ring whatsoever, I produced an even more poignant relationship, a dynamic instead of a physical one as existed in early drawings.

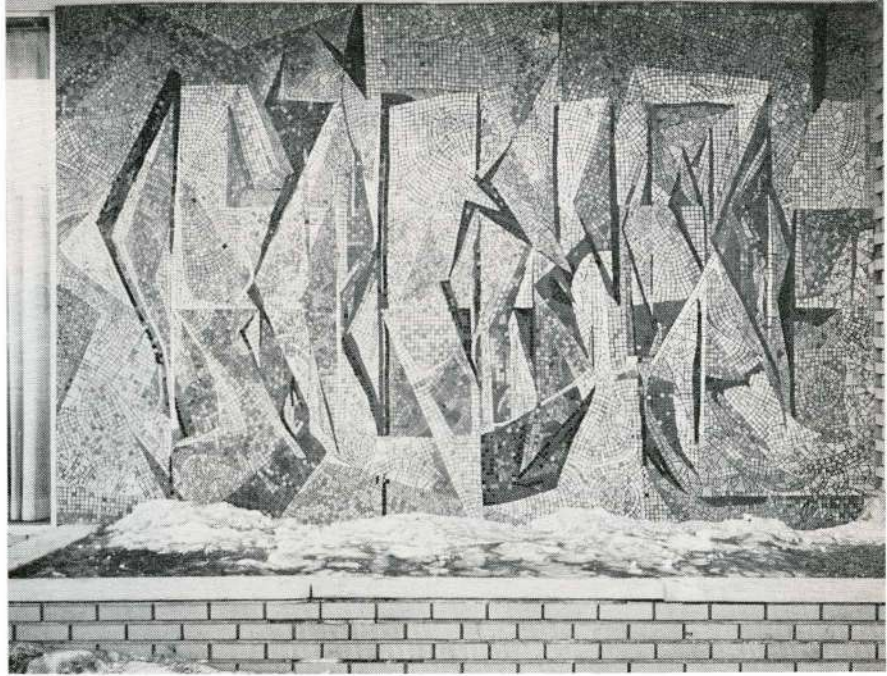
The screens (right) serve the function of orientating shoppers. For the east entrance, we have two cocks crowing against a rising sun. Conversely, an owl depicts the west side.

James Willer

Tile Mosaic, Asta Building,
by Robert Bruce

I felt some movement was needed to relieve the severe horizontal and vertical divisions of the building, but when I tried any curved or circular forms, they simply did not relate. I finally settled on a design that tried to mimic the shape and basic color of the other windows plus the bright reds and yellows that might appear in the drug-store window at the opposite side of the building.

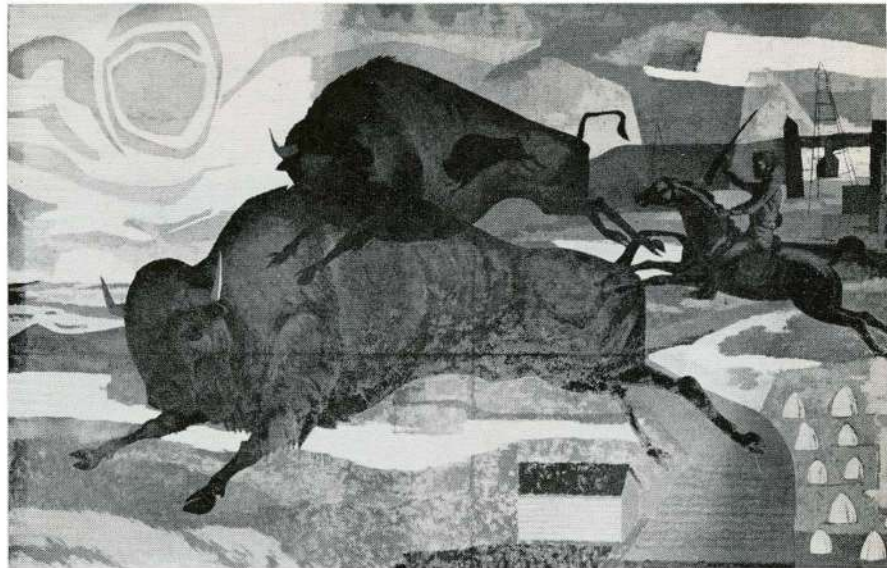
Robert Bruce



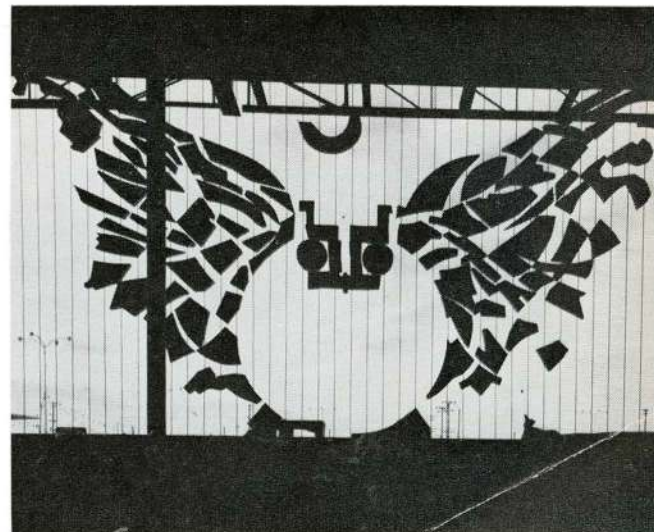
Mural, Library Building, University of Manitoba
by William Ashby McCloy

The mural is situated in a place which is convenient both for long range and close range viewing, also for viewing from one side, so I took care to include sufficient foreground detail and kept the forms larger in treatment than I had in the original sketch. Since the mural leads to the reading room on its left, and can be seen through glass windows from that side, the movement was kept strongest to the left and the sense of space of the glass continued by the treatment of the space of the mural. In other words, the center of space in the mural, to its left, is in adjustment to the space experience of the architectural space. The architectural scale of the lobby is smaller on the right, and the mural attempts to adjust to this as well. The medium used was lacquer and sand on masonite.

William Ashby McCloy



Screens, Polo Park. Left, The Cocks; Right, The Owl



Chapel Lawn Memorial Gardens

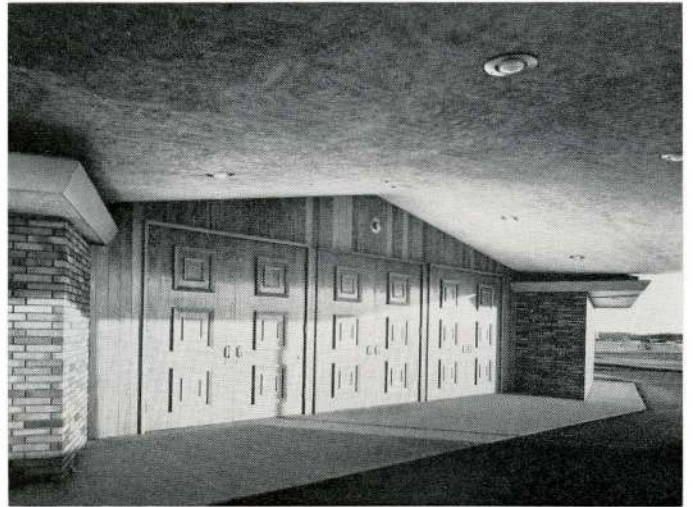
Service Building

Architect

Dwight R. Johnston, St James

General Contractor

A. W. Peterson Construction Co Ltd



HENRY KALEN

HENRY KALEN



PLANNING

The Chapel was the main problem. The shape of this space was finally decided by several requirements. (1) The size of space being limited by budget, (2) people never want to get close to the coffin, and (3) fitting the building to the site. The splayed shape with the ceremonial space at the narrow section saved space and allowed more people to be accommodated without getting too close to the coffin. Provision for extra large funerals was accomplished by making the entrance wall completely of doors, which could be opened, and the remainder of the people would be accommodated under the portico. The shape of the Chapel and the need of emphasis resulted in the type and style of roof. Windows with a view of the cemetery were made a feature of the Chapel. The office windows kept simple to provide the necessary views.

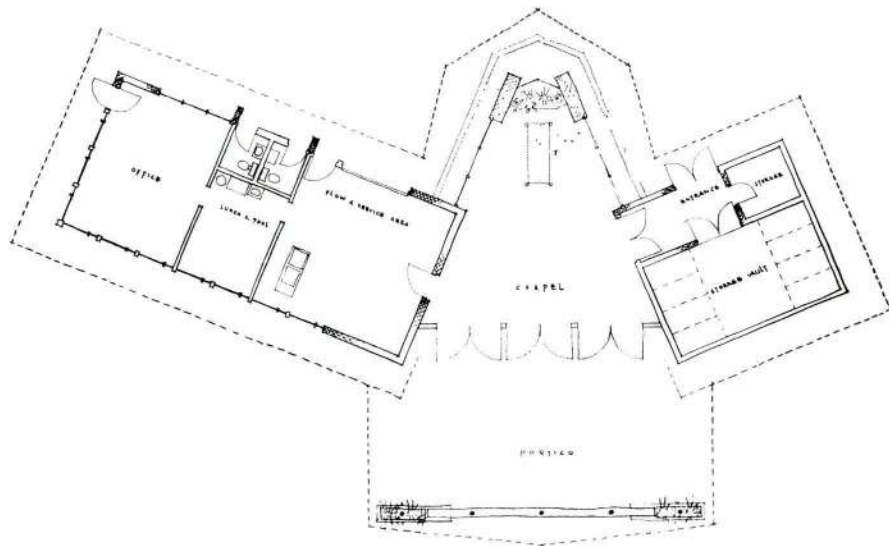
A sound system was included in the Chapel with speakers in the portico for large crowds, also an amplifying system to provide music over the cemetery.

MATERIALS

Manitoba limestone and Norman type brick were used inside and outside of the Chapel. Roof over Chapel has two scissor trusses with wood joints, hung acoustic plaster ceiling following the line of the trusses. Roof over other areas has wood trusses. Wood cedar shingles were used in random pattern.



HENRY KALEN

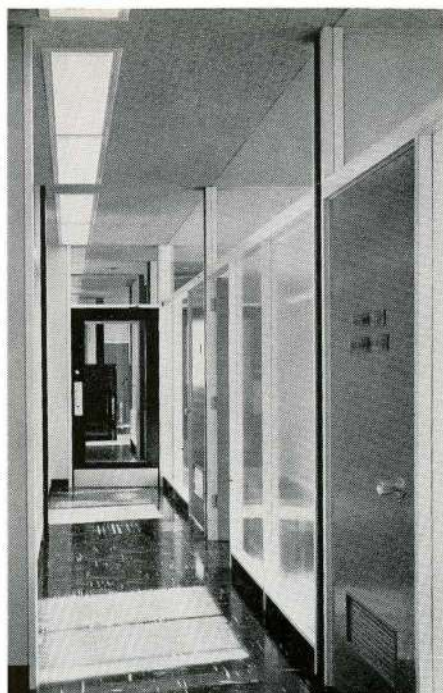


HENRY KALEN



Mutual Life of Canada Building

The design of the building was developed from a standard plan from the client which established the office layout, stair positions, etc. One unfortunate result was that the main stairs in the building straddle a column line and forced the position of the entrance door from the lobby to the main building right up against an exterior column. The problem was then to relate an entrance lobby to the main building in an orderly manner and to disguise to some degree the position of the inner door beside the column. It was also felt that the lobby should in no way obscure the expression of the structure of the main building. The design therefore aimed at a very clear visual separation of the two. The roof plate is set clearly apart from the skin of the main building and the channel structure and marble walls of the lobby are separated by a floor to ceiling glass panel and related to the main building by means of a strong base.



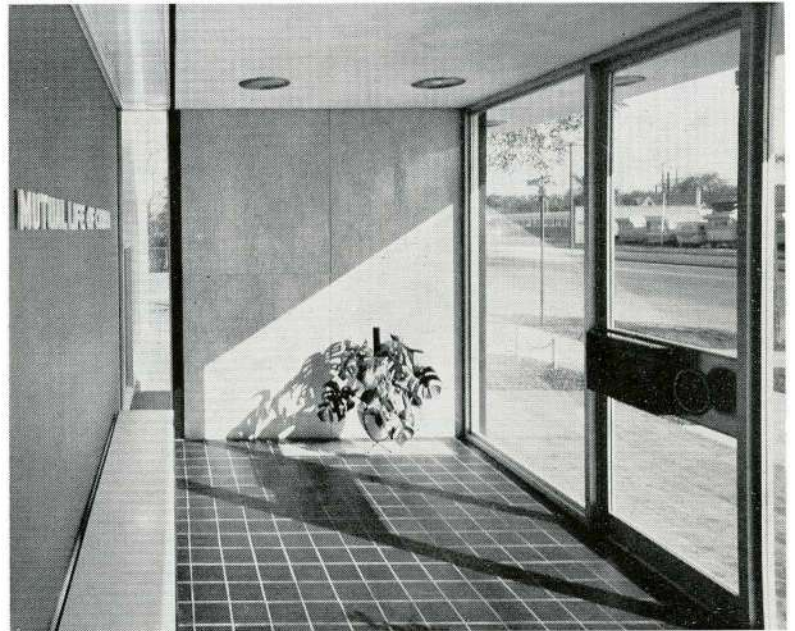
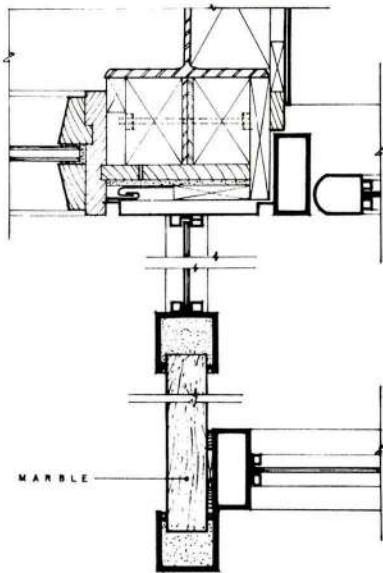
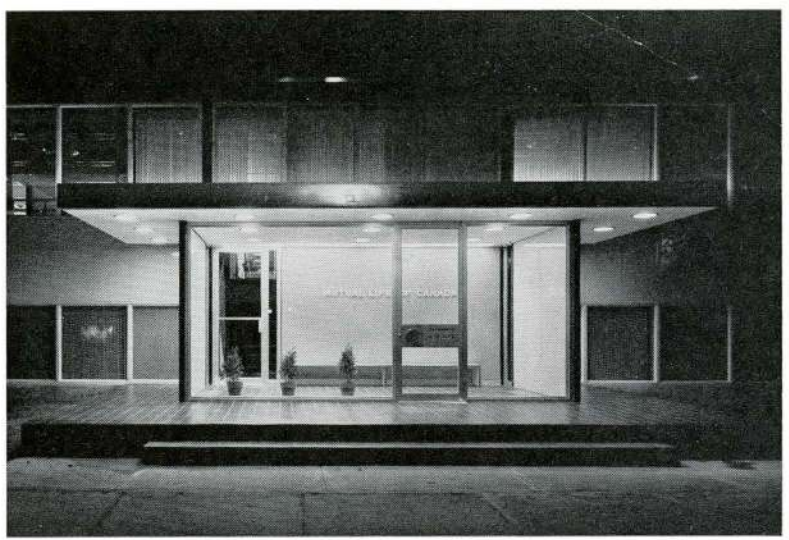
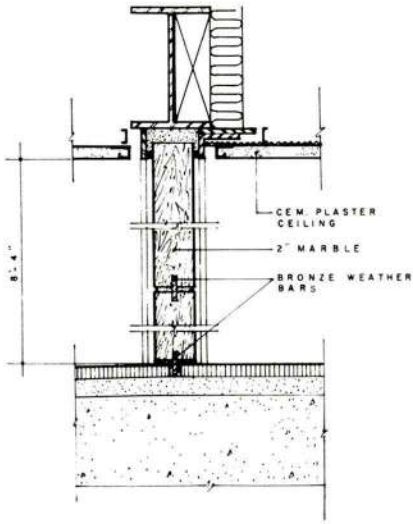
Architects

Green Blankstein

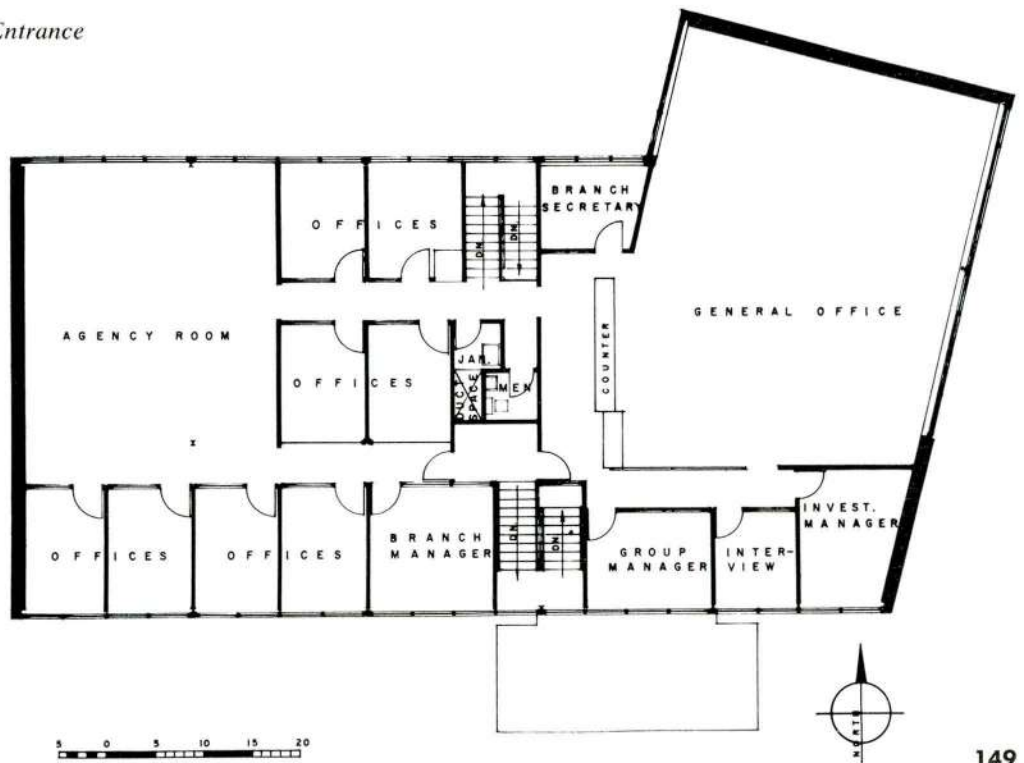
Russell Associates

General Contractor

Malcom Construction



*Detail
Wall Sections & Main Entrance*



First Floor Plan



HENRY KALEN

Winnipeg General Hospital

North Wing

Architects

Moody, Moore & Partners

General Contractor

Baert Construction Co Ltd

The new north wing extends across the face of the existing hospital buildings, and connects with the existing east and west wings. Besides five floors of single and double bed wards, there is a complete operating floor and recovery section, outpatients, x-ray and therapy departments, administrative section, laboratory, and pathological units, and medical records library.

The main front is faced with green filled Travertine, in continuous strip between the alternating glazed areas and aluminum panels, terminating in solid face brick end walls, unrelieved except for the centre corridor windows. The first floor is faced with red mahogany granite. Interior finishes are plain. Operating and service areas are tiled in subdued colors, and acoustically treated ceilings are general. Plaster walls are in varying pastel shades. Changes in floor tile locate restricted and sterile working areas. Anaesthetizing locations have conductive static discharging floors.

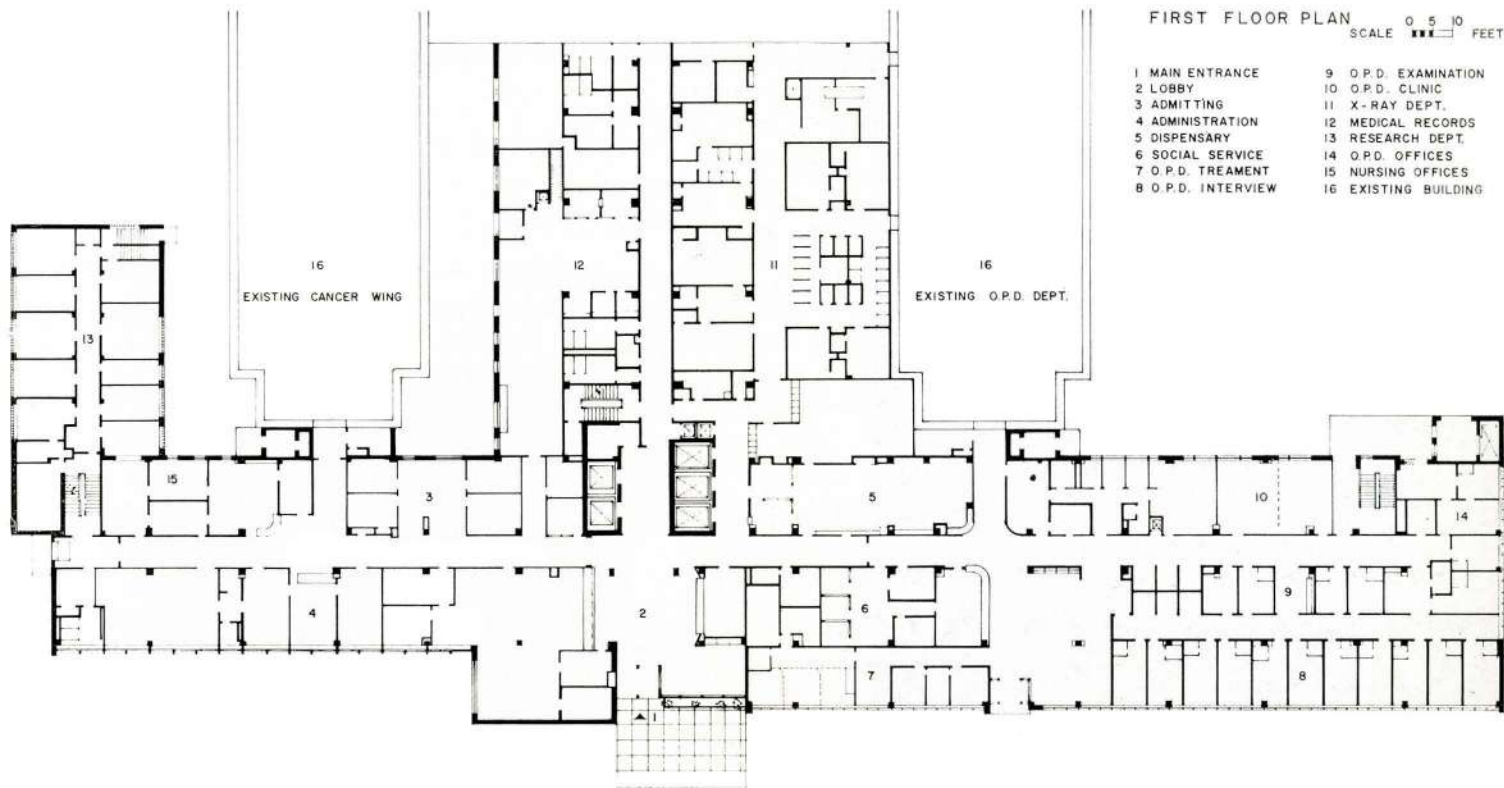
Construction is reinforced concrete beam, joist and slab with concrete caissons. Exterior wall panels are in face brick, except the entrance front, with lightweight block backup, aluminum insulated frames, and double sash. Interior partitions are, generally, lightweight block, with prefabricated metal partitions in areas subject to change with future expansion and technical advance. Laboratory areas have baked enamelled steel cabinets, the arrangement of which can be changed to suit new procedures. Each ward has an individually controlled air conditioner, while laboratory and operating areas are air conditioned by separate ducted systems.

HENRY KALEN



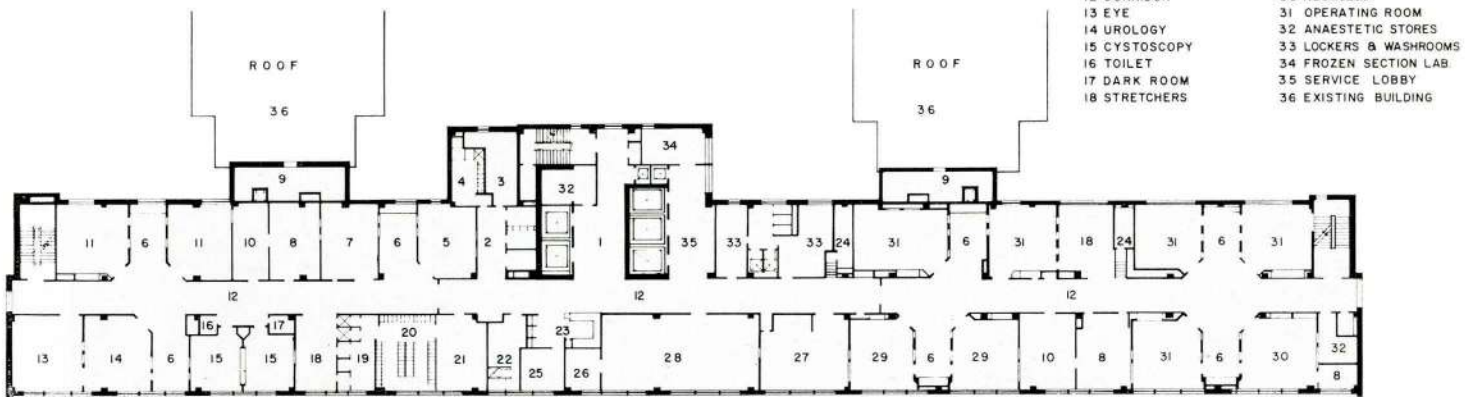
FIRST FLOOR PLAN
SCALE 0 5 10 FEET

- | | |
|--------------------|----------------------|
| 1 MAIN ENTRANCE | 9 O.P.D. EXAMINATION |
| 2 LOBBY | 10 O.P.D. CLINIC |
| 3 ADMITTING | 11 X-RAY DEPT. |
| 4 ADMINISTRATION | 12 MEDICAL RECORDS |
| 5 DISPENSARY | 13 RESEARCH DEPT. |
| 6 SOCIAL SERVICE | 14 O.P.D. OFFICES |
| 7 O.P.D. TREATMENT | 15 NURSING OFFICES |
| 8 O.P.D. INTERVIEW | 16 EXISTING BUILDING |



SEVENTH FLOOR PLAN
SCALE 0 5 10 FEET

- | | |
|-----------------------|------------------------|
| 1 PUBLIC LOBBY | 19 SURGEONS' TOILETS |
| 2 INDUCTION | 20 SURGEONS' LOCKERS |
| 3 ANAESTHETIC LAB. | 21 SURGEONS' LOUNGE |
| 4 INTERNES' LOCKERS | 22 FEMALE DOCTORS |
| 5 DIRTY OPERATING RM. | 23 CONTROL |
| 6 SUB STERILE | 24 GALLERY OPER. RM. |
| 7 ENDOSCOPY | 25 SUPERVISOR |
| 8 INSTRUMENTS | 26 UTILITIES |
| 9 FAN ROOM | 27 FRACTURES |
| 10 CLEAN-UP AREA | 28 RECOVERY ROOM |
| 11 E. N. T. | 29 ORTHOPEDIC |
| 12 CORRIDOR | 30 NEUROLOGY |
| 13 EYE | 31 OPERATING ROOM |
| 14 UROLOGY | 32 ANAESTHETIC STORES |
| 15 CYSTOSCOPY | 33 LOCKERS & WASHROOMS |
| 16 TOILET | 34 FROZEN SECTION LAB. |
| 17 DARK ROOM | 35 SERVICE LOBBY |
| 18 STRETCHERS | 36 EXISTING BUILDING |



WINNIPEG GENERAL HOSPITAL NORTH WING

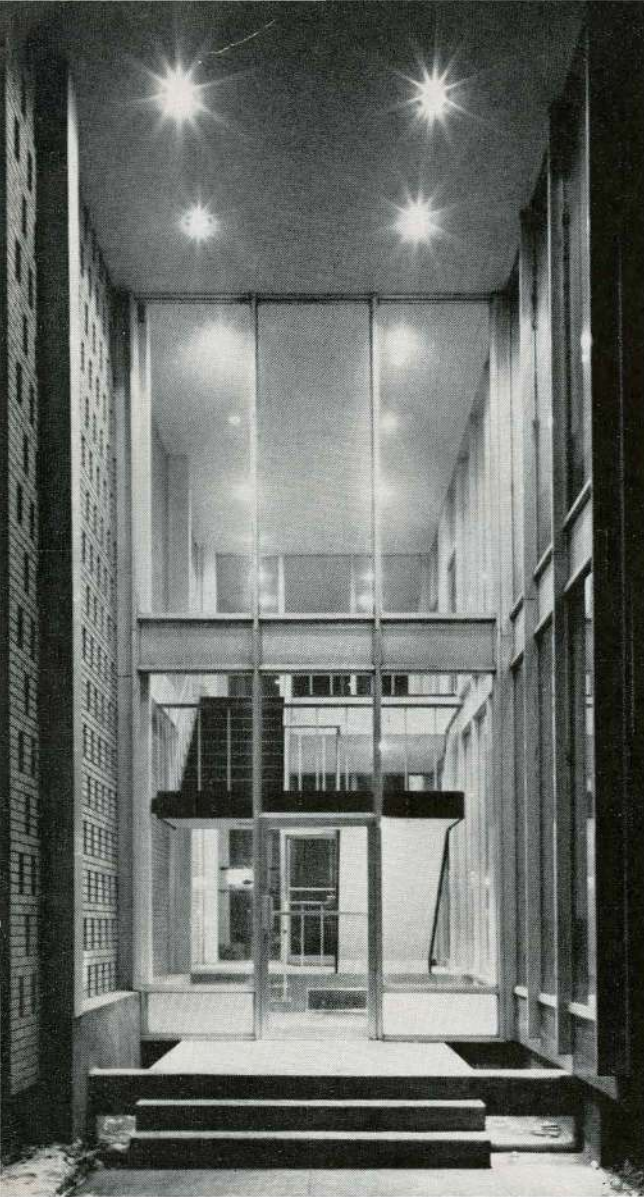
New York Life Insurance Company

Architects
Waisman Ross & Associates

Design
Geoffrey Barch

General Contractors
Peter Leitch Construction Ltd

The first floor of this steel structure is 4 feet above grade and is cantilevered 3 feet from the southern and northern foundation. The building is fully air-conditioned. The covered heating element, being mounted 3 feet above the floor line, also acts as a guard rail. Cost per sq ft was approximately \$18.00.

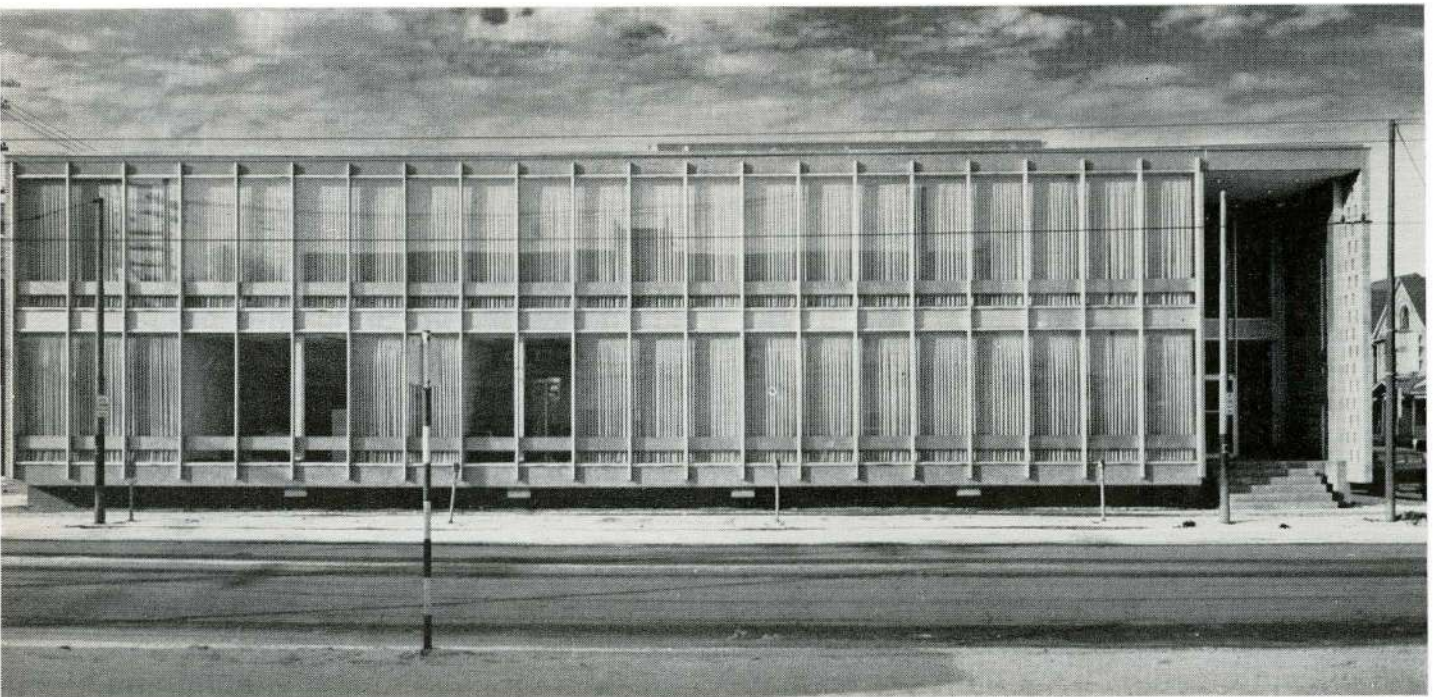


HENRY KALEN

Night View of Entrance



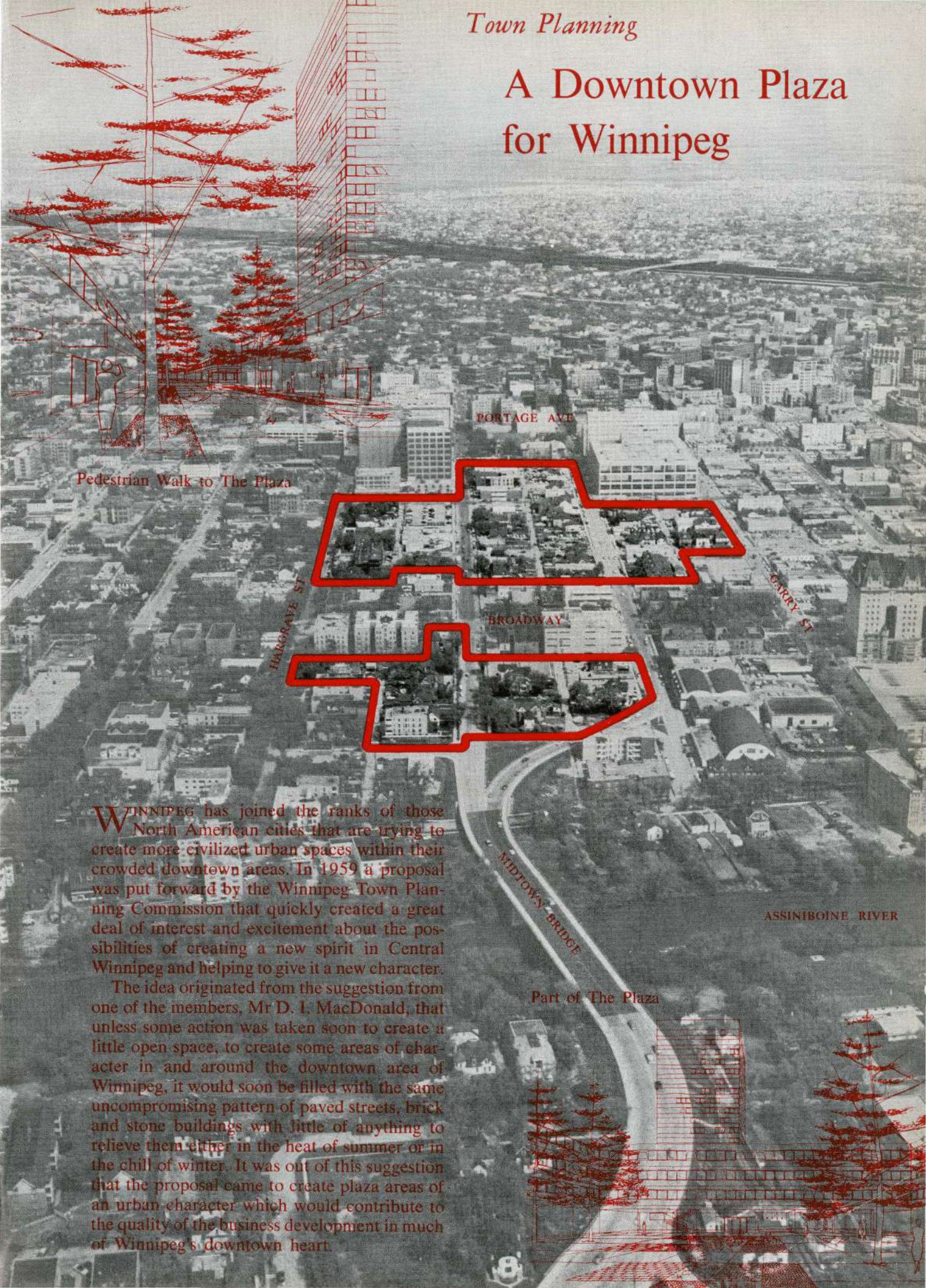
HENRY KALEN



HENRY KALEN

St Mary's Avenue Elevation

A Downtown Plaza for Winnipeg



Pedestrian Walk to The Plaza

PORTAGE AVE

HARGRAVE ST

BROADWAY

GERRY ST

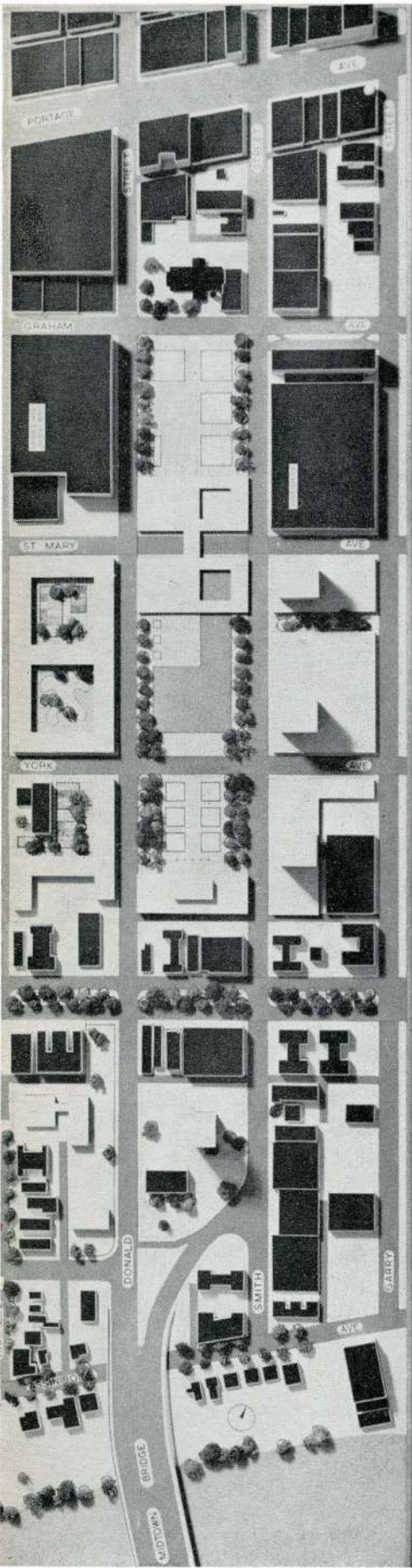
MIDTOWN BRIDGE

ASSINIBOINE RIVER

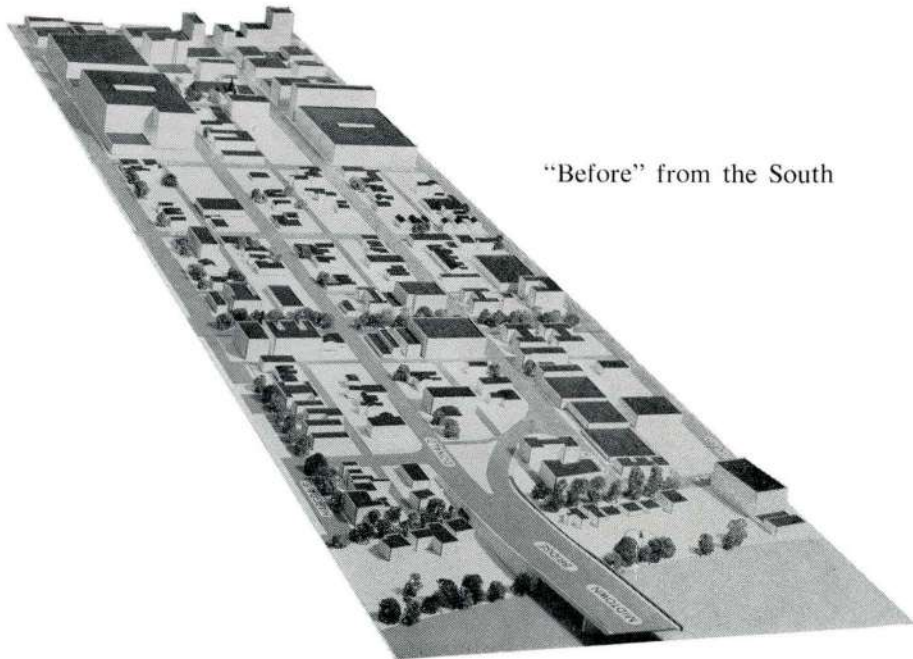
Part of The Plaza

WINNIPEG has joined the ranks of those North American cities that are trying to create more civilized urban spaces within their crowded downtown areas. In 1959 a proposal was put forward by the Winnipeg Town Planning Commission that quickly created a great deal of interest and excitement about the possibilities of creating a new spirit in Central Winnipeg and helping to give it a new character.

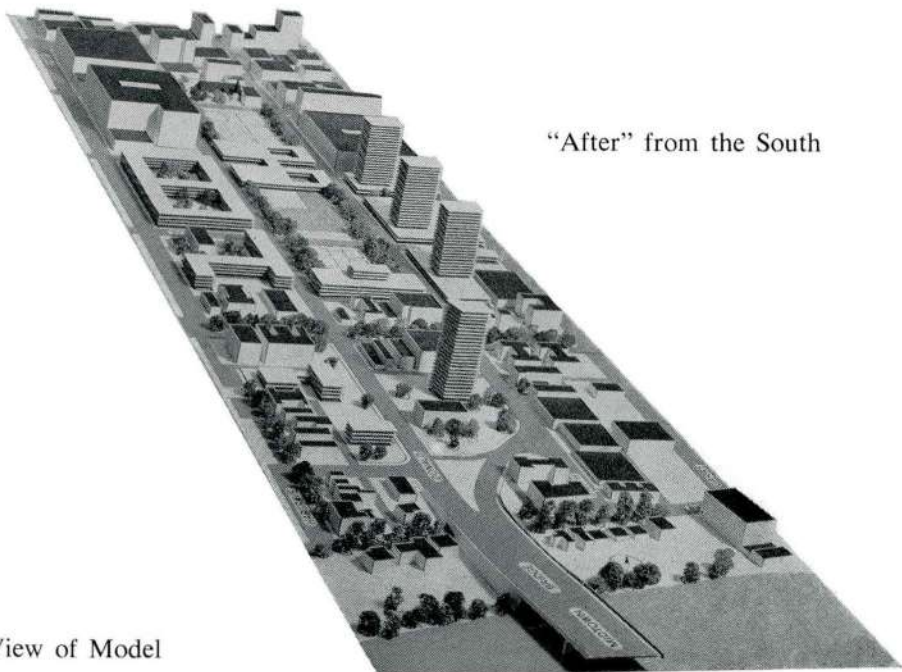
The idea originated from the suggestion from one of the members, Mr D. I. MacDonald, that unless some action was taken soon to create a little open space, to create some areas of character in and around the downtown area of Winnipeg, it would soon be filled with the same uncompromising pattern of paved streets, brick and stone buildings with little of anything to relieve them either in the heat of summer or in the chill of winter. It was out of this suggestion that the proposal came to create plaza areas of an urban character which would contribute to the quality of the business development in much of Winnipeg's downtown heart.



CAMPBELL & CHIPMAN



"Before" from the South



"After" from the South

Plan View of Model



Existing Condition:
Corner of Graham
& Donald,
looking East

The Midtown Bridge, opened in 1955, provides a connexion from Pembina Highway into the heart of downtown Winnipeg. North of the Assiniboine River, two existing streets, Donald and Smith, provide one-way approaches to the bridge.

The Winnipeg Town Planning Commission in studying the possibility of providing this public open space in downtown Winnipeg, looked particularly at the area from Portage Avenue south to the Assiniboine River. Land use studies showed that a substantial amount of the land on either side of both Donald and Smith Streets was occupied by parking lots or old rooming houses in poor condition.

The Planning Commission decided to develop a scheme for the redevelopment of this area which would create a series of connected and related open public spaces, of an urban character. The scheme as illustrated in the plan view of the model shows the Plaza proper consisting of two large open areas between Donald and Smith Streets, one occupying most of the block bounded by Graham Avenue, St Mary Avenue, and the other extending on both sides of York Avenue. The land for a block on either side of the Plaza between St Mary Avenue and the buildings fronting on Broadway would be redeveloped with commercial buildings and good quality apartments designed to create small partially enclosed open spaces with pedestrian access at ground floor level. Certain good quality existing buildings, indicated by black roofs on the model, would remain and have been incorporated in the design.

When the Plaza proposal was presented to City Council last June it was emphasized that the model and sketches had been prepared only to illustrate the idea of the creation of urban public open spaces and that an infinite number of design variations could be created that would be in keeping with the main Plaza theme or idea. It was also pointed out that some assistance in acquisition and clearance might be available under the provisions of the Urban Renewal Section (23) of the National Housing Act.

The Commission considered that a project of this size would present an excellent opportunity for private investment capital to participate in the renewal of an important part of downtown Winnipeg. The Commission was also aware that this was an undertaking that might take several years to complete.

There was extensive public and private interest in the proposal and it was discussed widely by both daily

papers, local radio stations. The local CBC-TV Station devoted a half-hour program to discuss the Plaza, the model illustrated here was built by the planning office staff for this program.

The proposal originally presented to Council included the provision of a small school and park site south of Broadway and west of the Plaza proper. This was needed to serve the residents of what has developed into a comparatively high density apartment area, between Broadway and the Assiniboine River, west of Donald Street.

Apart from general interest and considerable citizen approval the presentation of the idea has resulted in the following action:

1. City Council is studying ways of zoning the area to further the Plaza idea.
 2. The city's Urban Renewal Board has discussed the idea of Section 23, National Housing Act participation with Central Mortgage and Housing Corporation and is preparing a formal submission for assistance in acquisition and clearance of the blighted residential properties in the area.
 3. "The Winnipeg Parking Authority" has asked for the right to construct underground parking structures beneath the Plaza.
 4. The city librarian has suggested that the Plaza would be a suitable site for a central Public Library.
 5. The President of the Winnipeg Art Gallery has asked that provision be made for an Art Gallery in the Plaza.
 6. The local branch of the Humanities Association of Canada has suggested to the Winnipeg Town Planning Commission that the Plaza would be a suitable site for an "Arts Centre" for Winnipeg and is considering a program for an Arts Centre Building, which would include space for music, theatre and the ballet.
- In this connexion, it is also understood that Premier Roblin has asked the Manitoba Arts Council through its president, Mr R. D. Turner, to advise the Government of Manitoba on the requirements of an Arts Centre and to propose a suitable location. The Plaza area appears to be a favored site.
7. The proposal has received the enthusiastic endorsement of the Winnipeg Chamber of Commerce and the Downtown Business Association.



SMITH STUDIO

The Beaverbrook Art Gallery

Fredericton, N.B.

Architect—Neil M. Stewart, Fredericton.

Engineering Consultants—James A. Kearns and Associates, Montreal.

General Contractor—Diamond Construction (1955) Limited, Fredericton.

THE BUILDING occupies a magnificent site at the end of "The Green", a riverside park extending to the east and facing which are sited the Legislative Buildings and the Anglican Cathedral. To the west along Queen Street are a hotel, the County Court House, Provincial and Dominion Public Buildings and the principal commercial district.

The Gallery is carried on a tube pile foundation with a structural concrete lower floor. Terrace walls and the base of the main structure are native grey granite, the terraces paved with multicoloured natural cleft slate. Upper walls are semi glazed grey brick panels framed in Mississquoi grey marble.

The three exhibition galleries have rubber tile floors with a terrazzo base. Walls are plywood covered with a heavy textured vinyl fabric which reflects light without glare. Ceilings are egg crate plastic and are held back about eight inches from the walls to obtain the effect of a floating luminous ceiling. All vent ducts and diffusers are concealed above the ceiling. On the lower level there is an apartment for the caretaker, a large storage vault and working space for packing and shipping. All mechanical equipment, motors, fans, compressors and the transformer vault are contained in basements below the terrace, outside the structure of the main building. The classroom is a multipurpose room, used for public lectures and for classes in connexion with the University of New Brunswick Fine Arts Department. It is available for exhibition by local art clubs, travelling shows, school

children's work, and other related groups. There is a separate entrance from the riverside terrace so that it can be completely closed off from the main galleries when desirable.

MECHANICAL. Low pressure steam is brought in from the Provincial Government central heating plant. Basic heating system consists of radiant floor panels around the outside walls, force-flow heaters which drop a curtain of warm air across the window of the center gallery and at the main entrance, and heating coils in the ventilating system. The lower floor is heated by hot water convectors. The main galleries are air conditioned to maintain temperature and humidity at as near the optimum levels as is possible in this climate. The storage vault and class room are ventilated and air conditioned on a separate system.

LIGHTING. The main galleries are top lighted, the only window being the large north light of the center gallery. Skylights are "Toplite" diffusing glass block set in continuous parallel rows four feet in width at eleven foot centers. About 35% of the roof area is Toplite. Below this is suspended the egg crate ceiling allowing a depth of eight feet for even light diffusion. Fluorescent lighting is arranged in rows parallel to the skylights, sufficient to provide an intensity such as would be obtained from the sky on a heavily overcast day. Around the perimeter is a row of low power incandescent spot lights, two feet on centers, directed toward the hanging space. Each of these is fitted with a pivoted fibreglas screen so that the intensity of light on the face of the pictures can be controlled. The maximum without screens was approximately 65 foot candles. After a series of trials an intensity of 45 foot candles was decided on as the optimum and the screens were fixed to produce this intensity. After eight months there has probably been some reduction but it is not apparent to the eye. Diffusing screens are placed over the egg crate ceiling between the spotlights and the wall to eliminate strong contrast in the illumination of the

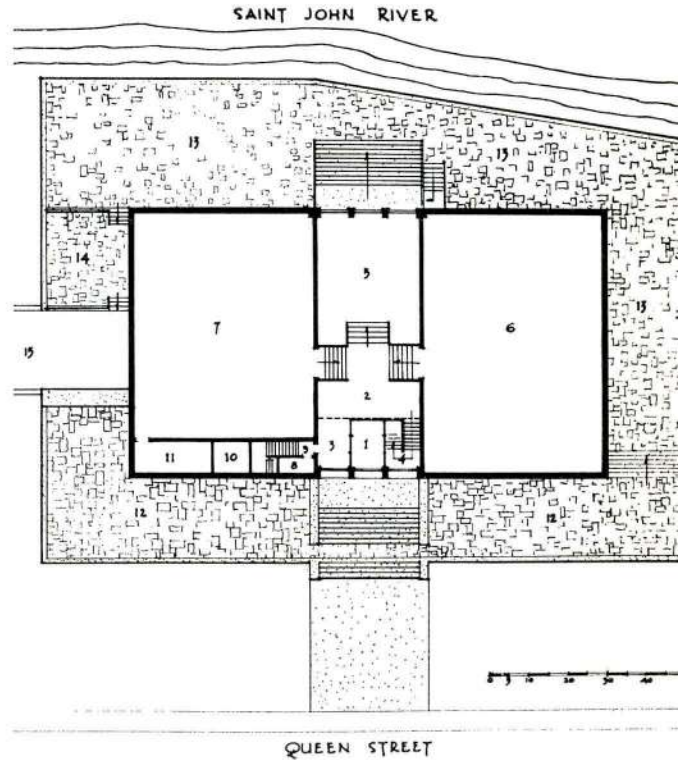
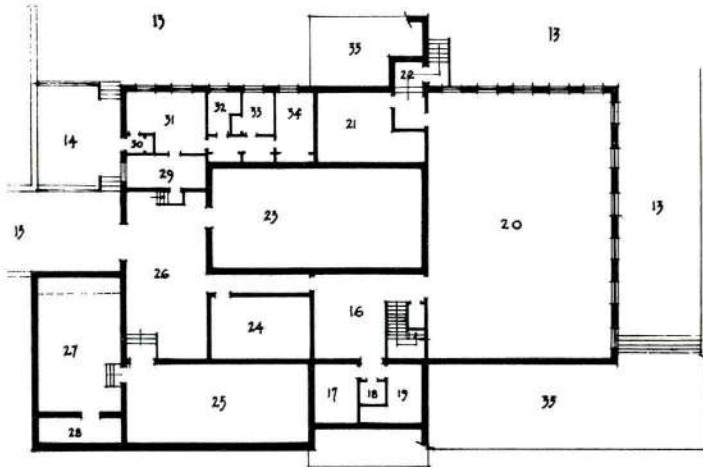
ceiling, and at an angle of forty-five degrees between the edge of the suspended ceiling and the wall to reflect light down on the upper part of the wall. The position and weight of the diffusing screens was worked out experimentally and the end result is a wall that appears, to the eye, to be evenly lighted from floor to ceiling. The light meter shows an intensity of 20 foot candles at the base, increasing to forty-five between four and nine feet above the floor, then decreasing to about fifteen at the ceiling.

The lighting of the walls by daylight is uniform though the diffusing screens cut down the intensity of light near the ceiling. In practice no artificial light is used until late afternoon on a dull day. The light beige of the floor appears to have considerable value in reinforcing the sky lighting. The comparative lighting effect as between natural daylight and night lighting may be seen in the illustration of the East Gallery from the foyer which was taken by natural light only and the Graham Sutherland wall of the East Gallery, taken by artificial light.



CENTER GALLERY

HARVEY STUDIOS

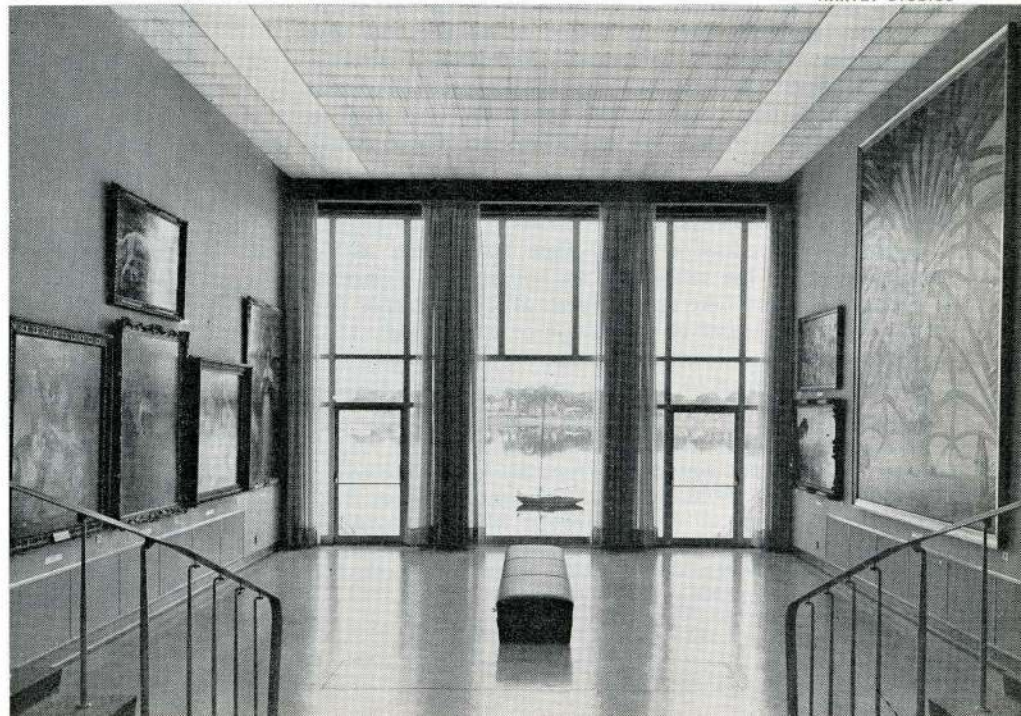


KEY TO PLANS

1. Main Entrance.
2. Foyer.
3. Receptionist.
4. Stair to Lower Floor.
5. Center Gallery.
6. East Gallery.
7. West Gallery.
8. Staff Toilet.
9. Stair to Office.
10. Duct Space.
11. China Room.
12. Terraces above grade.
13. Terraces at Grade Level.
14. Caretaker's Entrance Terrace
15. Ramp down to Service Entrance.
16. Lower foyer and Cloak Rooms.
17. Women.
18. Janitor.
19. Men.
20. Classroom.
21. Storage.
22. Entrance to Class Room.
23. Storage Vault.
24. Work Room.
25. Fan Room.
26. Receiving Room
27. Heat Exchangers & Compressors.
28. Transformer Vault.
29. Kitchen - Dining.
30. Apartment Entrance.
31. Living Room.
32. Bath
33. Bedroom.
34. Bedroom.
35. Void.

CENTER GALLERY, RIVER SIDE

HARVEY STUDIOS



Banff

Session '60

Candid Photography by Don Sinclair

ABOUT FIFTY ARCHITECTS, engineers and wives – a record attendance – met at Banff in February for the fourth annual seminar. This year, the former pattern of inviting a single star speaker was changed in favour of selecting an important topic for discussion “Architecture and Structure” and building up a strong team around the figure of a brilliant keynote speaker, John Burchard, Dean of Humanities, M.I.T.

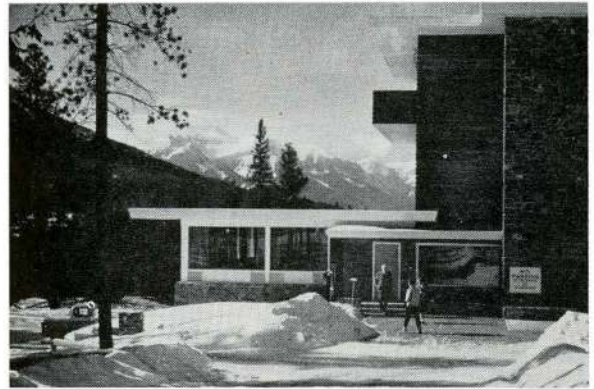
The session was opened by Mr Kenneth Madsen, Banff School of Fine Arts, who welcomed the participants, and by Mr George Lord, Chairman of the Organizing Committee. The Director then outlined the program and indicated some important areas for discussion before introducing the guest speakers, Paul Wisnicki, Associate Professor of Structural Design, University of British Columbia; James Acland, Associate Professor, School of Architecture, University of Toronto; Alan Bates, Vice-President, Portland Cement Association, and director of research at the Skokie Laboratories, Illinois; and Bernard Spring, Head of the Research Division of the Weyerhaeuser Company, of Washington, U.S.A.

John Burchard got off to a lively start by saying that he had changed the title of his talk so that he could range more freely, and that he hoped to shake us out of our complacency. He began by challenging the architect's claim to leadership, and to his self-appointed position as coordinator and visionary. He referred to the inevitable lag between scientific discovery, technological application and the serious use of an innovation; he cited the elevator, the steel frame, and the electric light as examples. For instance, architects experimented tentatively with electric light and gave very little thought to the design of light fixtures long after it was evident that this form of illumination had come to stay, and had tremendous potentialities. “It is strange” he said “that architects still do not really know how to light many architectural spaces by electricity”.

Our speaker maintained that an elaborate and versatile technology is not necessarily a boon to architects, and there may be aesthetic poverty as a consequence of too many alternative resources. Here he voiced an opinion that was the recurrent theme of subsequent discussions, and one could not but be reminded of Sir Edwin Lutyens' statement fifty years ago that “granted new materials, it is easy to produce novelty. But it is just as difficult as ever to create a work of art”.

John Burchard then pointed out that with a million motor cars on the U.S. highways in the 1920's the period of growth of automobile production could then be charted within reasonable limits, but architects, the self-appointed leaders of thought, did not take up the ideas of Le Corbusier and others, with any degree of conviction or enthusiasm. Then again we were reminded that after the success of the first jet engines we continued to plan air terminals long after the

The Candid Camera (1) The setting: most sessions were held in the solarium wing of the Banff School of Fine Arts. (2) Excursion: all out at the summit. (3) Good food. (4) “Engineer & Architect”: Panelists, Wisnicki, Lee, Moderator, Dr Bates, Keating, Harris. (5) Rebuttal: Dean Burchard, Wisnicki & Acland. (6) Humour. (7) Talk & food, L to R, Dean Burchard, George & Mrs Lord with Dr Howarth, Director of the Session. (8) Discussion: Wisnicki & Bates.



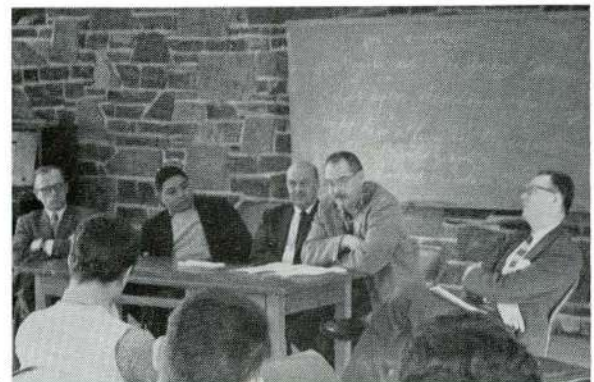
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*A Review by Dr Thomas Howarth, School of Architecture,
University of Toronto, Director of the Session*



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7



8

decline of the propeller plane was foreshadowed. Here, however, he failed to develop his thesis by advising us what we should do now when advances in vertical flight may soon render obsolete the great airports we have been constructing for the jet age! A look at our modern cities indicated to him that architects "are technically illiterate, capriciously disinterested in becoming literate, unimaginative in portraying buildings for the future, and uncourageous in fighting for whatever convictions they have". Architectural research is trivial in comparison with research in other fields and the great architects of today ignore technological and natural truths, while few important innovations in building have come from the architectural profession.

In considering changed conditions of the post-war period, we must take account of nuclear bombs and the possibility of cities built below ground level; of the annihilation of time by jet travel; and of the fact that a modern city is now a "24-hour proposition", seen by day and by night, from the air and from the ground. We were asked if, in the light of vital statistics indicating a rapidly ageing population, we were adapting our designs to this new condition. And did we know that it was now technically possible to be sheltered from rain without a roof, and from cold without walls?

Our speaker turned next to a matter that has long been concerning those of us who are seriously engaged in architectural education, namely the fact that the average intellectual calibre of people working in scientific research on, say, electronics or space vehicles, is higher than that of individuals entering the fields of architecture, structural engineering and architectural technology. In engineering, said Burchard, the imaginative young minds are now lured to the frontier fields of scientific experimentation.

It was not only in the realms of the imagination and of advanced research that John Burchard found us wanting, but in our effective use of known facts. He reminded us of the inefficiency of much cost estimating, of modern buildings structurally defective, and of the capricious choice and acceptance of novel design forms for their own sake. We were told that the prima donna architect often forces the physicist to work his way, and that the greatest designers of our day are not really interested in technology. This was shown for instance by leaking roofs and by the continual use of large glass areas in unsuitable climates. It was pointed out that much *brise soleil* is not scientifically designed, and that solar machines for calculating probability tables are not used, although all the data for precise calculation is now available. And finally we were reminded of Dunn's cartoon which bore the caption, "He'll never be an architect, he can't even invent a new roof".

John Burchard finished his hard-hitting and provocative address with a statement that might with advantage be carved above many an architectural portal — "To walk with the mind as well as the soul, may not mean that one walks less far or ascends less high".

Paul Wisnicki followed with a well-considered presentation on structures which, in addition to providing us with a great deal of useful knowledge, contained many penetrating observations and criticisms.

Wisnicki drew cable structures and folded slabs with a facility that made structural theory seem child's play. "Cal-

culus", he said, "is just adding up." He surprised his audience by claiming that the basic principles are known *now* for all foreseeable advances in the structural field. Furthermore, he continued, there is no need to seek precise answers to engineering problems since there are many variables — wind pressure, soil and earth movements, for example.

Architects were urged to be content with accepted structural forms for simple buildings, especially those of compartmental plan, such as hotels, offices, apartments and the like; flights of imagination are justified only where long spans are involved, or where some new problem demands an original solution.

Although in discussion Bernard Spring had said that in 20 years the majority of buildings would be prefabricated in the shop — and this was implied also by Dr Bates, (the one anticipating the development of timber structures, the other of prefabricated concrete units) — Wisnicki maintained that since waste and extravagance have now superseded thrift and economy in our society, we should no longer be obliged to build economically, and that in his view prefabrication was not likely to be the universal answer. This somewhat unorthodox philosophy was not challenged, probably because the audience of architects and engineers was entranced by the prospect of the financial consequences of its general acceptance!

After outlining different kinds of cable structure and challenging some of the claims made for them, Wisnicki stressed the importance of considering the aerodynamic problems in structures which are inherently unstable. We were told that the cable system is really only practicable for roofs of very long span as, for example, in sports arenas. As yet there are no standard details, and it is unlikely to be used freely by the general practitioner.

Wisnicki went on to say that there was little possibility of the emergence of any new structural forms that would be generally acceptable to the building industry. New and novel forms would undoubtedly be evolved, but only the fittest would survive under the searching tests of practicability, structural soundness, economy of means, and aesthetic acceptability.

After these papers the audience was divided into small discussion groups of five or six, each with a chairman. Later the various points raised by each group were brought together and presented to the two speakers in the evening for general discussion.

One group maintained that the architect was not necessarily the man who should attempt to anticipate the full implication of new technological developments, and, indeed, this called for an individual of cosmic vision, a new kind of person perhaps, a modern universal man, of whom Burchard himself may well be a prototype. Another group went so far as to say that architects should concentrate upon human problems and not be so concerned about technical developments; it was felt that we had many aesthetic and social problems yet to solve with the means already at our disposal, and indeed we had failed to master all the techniques and materials that were now available.

Another group stressed the importance of research and the thorough testing of new ideas in design and structure before their practical application. Information and objective criticism by an independent testing organization should be made available to architects, and the professional journals should be fearless in reporting upon failures as well as positive achievements.

It was thought, too, that schools of architecture should adopt a more intelligent approach to the teaching of structures and that the first and main objective should be a thorough understanding of the basic principles of structural design. Yet another group challenged John Burchard's statement that the architect is a hanger-on, and it was said that the architect is trying continually to be a jump ahead of his

client, and indeed, that the men of imagination are always with us. During the course of this discussion one was reminded inevitably of pioneers like St Elia and the Futurists who at the turn of the century were designing sky-scraper towers, elevated pedestrian walks and highways, underground servicing and innovations that were developed later by LeCorbusier and others, and which are only now becoming part of the stock in trade of the city architect and planner. Then someone pointed out that this was all very well but the average architect is not properly qualified to master the complexities of modern architectural practice, much less the larger social implications of his work.

"If the architects demand prestige," said John Burchard, "they should earn it!"

Wisnicki claimed that research had degenerated into a type of promotion by many North American universities, and he questioned the validity of much work that was now being done in the structural field under the guise of research. "Engineers", he said, "are asked too often to perform tricks; but the best minds in both professions are not interested in novelty or in publicity but in doing a good job."

All of the engineers present agreed that the average engineer is just as incompetent to handle advanced structural design as the average architect is incapable of producing work of high aesthetic quality. One engineer went even further, and claimed that if architects were properly trained in the technical field, the ordinary consultant would be largely out of business.

In reply to a suggestion that a book simply and clearly stating the advantages, disadvantages and limitations of typical new structural systems might be prepared to assist the architectural profession in arriving at the right kind of structure for each problem, Wisnicki said that such a book of reference would tend to discourage experiment by the architect and would defeat its objective. He added that a very real handicap to experimentation now is the building code, and he deplored the reliance upon procedures as represented by such codes, rather than upon the application of the principles of good design. He repeatedly drew our attention to the fact that proofs of structural stability are not always possible in figures since many indeterminants are present, and he argued throughout for greater flexibility in design and less reliance upon precise analysis.

The lecture by James Acland on "Vaults", interspersed with many superb coloured slides, reminded us of the importance of continuity and tradition, and provided material for lively discussion. Acland's almost casual observation that the tops of certain Baroque vaults were more structurally expressive than the underside, or visible part, provoked one of the most fruitful discussions of the session on what Ove Arup has so aptly called "the structural fallacy". This debate was continued at length when, during an informal presentation of slides, Wilfred Ussner of Vancouver showed illustrations of a church he had designed recently with an attractive vaulted ceiling and tapered polygonal columns. The ceiling was suspended from the main structure and the columns were of steel enclosed in a carefully detailed plaster skin. Mr Ussner was delighted to find himself in the direct historical succession of the Baroque masters; but the structural purists were offended by this apparent perversion of truth. We had then to face another important issue: if Mr Ussner's elegant church had been built of reinforced concrete with exactly the same internal detail, would it have been any more successful as a work of architecture than it now was with its steel frame and plaster skin? Thus we were again in the realms of philosophy and metaphysics — what is beauty, what is truth? The debate still continues . . . but one felt that the odds were on Mr Ussner.

Acland's slides revealed to us a wealth of variations on the theme of enclosing space. His subjects, ranging from the massive gravity walls of the Romanesque of Southern France

to the light skeletal structures of the Gothic of Poland, from the extraordinary "folded plate" vaults in Czechoslovakia to the convolutions of Art Nouveau by Antonio Gaudi in Barcelona, showed that a remarkable range of structural form can result from the application of very simple principles of design.

After a surfeit of philosophy, technical virtuosity, and visual delight, Mr Bernard Spring, Research Director of the Weyerhaeuser Timber Company, outlined for us some of the problems of timber development insofar as the timber industry is concerned. He indicated that advances are likely to be seen in the field of design and aesthetics rather than in structure. He discussed lamination and the prefabrication of structural units such as folded plate roofs which could be delivered in large sections upon the job; he emphasized the dimensional stability of the material, and many eyebrows were raised when he claimed that the variable properties of wood are fewer than those of steel and concrete largely because of the vast quantities used and the possibility of precise selection. Illustrations of an abortive attempt to roof a sports arena 360 feet square with timber provoked a lively discussion on the validity of attempting to do a job in one material (in this case timber) when it would seem that it might have been more efficiently and economically executed in another, steel for example. The lecturer's reference to "stressed skin" panels caused us to challenge the use of pseudo-technical terms and it was agreed that the language of vision, design, and technology needed to be more precise.

It was regretted by everyone that Mr Spring was unable to disclose the areas of research into problems of changing the properties of timber, and exploring other avenues of development in which he himself is now working.

Allan Bates spoke to us on research and recent advances in concrete construction. He greatly impressed us by his description and illustrations of his remarkable research laboratories near Chicago. His eloquence and persuasive charm convinced us that concrete could now be made fire-proof to the n^{th} degree, could last forever, could be permanently coloured; and could even be made to look well without expensive treatment. He claimed that it may soon be practicable to prefabricate and construct in reinforced concrete the most elaborate plastic shapes, and that prefabricated sections may soon be stuck together by miraculous new adhesives. We were then shown diagrams and figures to prove that normally bonded block walls are *less* strong than stacked bonds, and that really tough concrete has to be filled with air bubbles — with the numbers and sizes of bubbles specified of course! We had visions of little men — bubble blowers — working on the site, and the formation of a Bubble Blowers' Union. However, the problem is far more complicated than this and, needless to say, such concrete would have to be prepared under carefully controlled conditions. Dr Bates admitted that with all our technical advances the major problem was still that of obtaining work of high quality on the site; he repeatedly stressed the importance of expert supervision of the mixing and laying of concrete, and reminded the architects of their responsibilities in this regard.

We were especially pleased to hear that all the findings of Dr Bates' research teams are published — they have no secrets! — and are available to architects and engineers.

The work of our own National Research Council (D.B.R.) and its excellent reference library were mentioned in this context, and we discussed briefly the problems of disseminating information.

During panel discussions the relative position of the two professions were examined and it was concluded that if a good architect works with a good engineer there will be no question of one dominating the other; each will respect the other's contribution. "If the engineer dominates the archi-

ects", said Engineer Keaton, "the architect should not be in business; and if an engineer has nothing to contribute to the design team, then the architect who hired him made a mistake".

The engineers claimed that structural design was only half the work of the consultant, the rest was supervision. Specification as well as supervision should be included in the engineer's contract if a job was to be really satisfactory. The architects were arraigned for neglecting soil testing and foundation design, for this too was an area where consultation could be extended with considerable advantage to all concerned. Although it had been tacitly assumed throughout our deliberations that we had been discussing buildings of fine quality, we were told by one of the engineers that it is high time architects cleaned house. He pointed out that many buildings that disfigure the landscape were created by qualified and registered architects, and that we cannot blame the speculator, the builder and the engineer all of the time. It was then suggested by an architect that the profession which welcomes the Massey Medal Awards for good design might now consider initiating a system whereby its displeasure could be registered in cases where elementary standards of good taste, or of good building, were flagrantly disregarded.

We discussed at length, but did not reach any conclusions, as to where to draw the borderline between the architect's and the engineer's responsibility for building. We recognized that practically all structures — bridges, water towers, grain elevators, highways, for example — demanded a high degree of aesthetic perception if they were to enhance rather than detract from the visual scene. It was suggested that the engineer commissioned to design structures of this kind might with advantage consult an architect whose work he respected to advise him in general terms on the form, proportion, detailing, and on the siting of such objects. There was no question of adding architectural trimmings and increasing the cost, as some engineers feared, but rather of attempting to relate the structure to human scale, and to the landscape.

We were impressed throughout the session by the insistence of architects and engineers upon the necessity for high ethical standards, mutual respect, and the importance of doing a first rate job at all times.

This, then, in the absence of written papers by the participants, or verbatim reports, must serve as an outline of our deliberations. The lessons of Session '60 should be obvious from the foregoing and may be summarized thus:

if we are to continue to hold (or should we say regain?) the respect of the public and of our friends in the allied professions, we must put our own house in order. This will demand far greater discipline and responsibility in the fields of design and building technology with, as a necessary corollary, considerably improved educational standards; a firmer adherence to ethical values; and a greater awareness of public responsibility.

We must not pretend to be men of vision, but be men of vision if we are not to lose ground to those who would seek to assume leadership in the broad field of environmental design.

The Alberta Association of Architects and the Department of Extension of the University of Alberta have shown remarkable foresight and courage in launching and sustaining the Banff Seminars — often at considerable financial sacrifice. With the support they deserve from all levels of the profession, and especially from the major architectural firms across Canada (who surely could send a senior representative each year), the Seminars could make an even more significant contribution to architectural development in this country.

We await with interest an announcement about next year's program. ❧

Viewpoint

The Eventual Adoption of a Sliding Scale of Fees in an Inverse Ratio to the Cost of the Work is Inevitable

This premise is very doubtful as it would require the raising of the present fee structure for lower priced jobs. Architects in general have so much humility about the services they offer that the majority shrink with horror when any such suggestion emanates from the floor at a general meeting of a provincial association.

The school of thought that an increase in fees is synonymous with the loss of clients is firmly entrenched.

Over the period of the last 15 years as the profession has become more competitive, architects have offered more and more in the way of services beyond the scope of the Standard Form of Agreement between Client and Architect. We are now assuming the roles of legal consultant, financial adviser, credit manager as far as the general and sub contractors are concerned, manufacturing or rental expert, etc., all on behalf of the client.

For our own benefit and reputation we are in theory acting as a testing laboratory in the selection of materials. We are obtaining approvals from all the various and increasing number of government offices who now regulate our planning and designing. For school boards we are guaranteeing that the contract cost will not exceed the budget based on provincial grants. We have assumed the task of assuring that the job will be completed on time. We are doing most of the job supervision of sub-trades for the general contractor, who has now reached the status of a broker with no tradesman of his own except for a few old-fashioned firms who still do their own masonry and form work.

In the normal diversified practice of an average architect's office his cost to provide this service has reached the point where it has no relationship to the standard fee schedule when applied to a lower priced job. The loss must therefore be made up by the profit on a large job. I see no valid reason for the client who builds a large building to subsidize the small client. The alternative is to cut down on the services provided on the small job, unless the architect figures that one day his client will want a big building and will have been so impressed with his service that he will be automatically retained a second time. Unfortunately, and all too often, the client picks a big architect for the big building.

The owner should pay for what our services are worth. If we, as architects, are going to continue this all in, or perhaps it should be expressed "all out", service then we should be paid for it and this can only be done on the smaller jobs by raising our fees. In the end we will probably produce better architecture and a more satisfied client. In turn we might then be able to lower fees for the very large jobs which should produce another more satisfied client.

G. Everett Wilson, Toronto

The guide to professional practice published by the Alberta Association of Architects says in part, "the schedule is recognized by the profession as indicating what are fair and reasonable minimum fees for the services of an architect". I have not studied the various acts of the other provinces too closely, but in all probability their intent is the same. It should be noted here that the schedule is expressly intended as a minimum.

It is difficult for one to decide what are the minimum fees for architects if one considers Canada as a whole. Quebec has a fee schedule, and is that schedule not different to the one used in Ontario? If one works with the Federal government one will find that they too have their own schedule, which is low, and which requires the architect to employ a "clerk of the works" and makes the fee even lower. All provinces have slight or large differences in their fee schedule. Alberta has changed theirs so many times over the past eight years that it must be very confusing for those outside the province, to say nothing of the confusion which it has created at home. And now it is suggested that eventually there should be an adoption of a sliding scale of fees in an inverse ratio to the cost of the work.

The cost of whose work? If fees were increased so that smaller jobs paid more it would only allow the inefficient office to become more inefficient, while the few efficient offices would make larger profits even though they did well on the original schedule. And even more important, it would place a heavy burden upon the small client. The large client is quite capable of paying the minimum fee, and if he deals with responsible architects he will certainly get his money's worth. After all it is a minimum schedule and there is nothing unethical about charging more for the job which requires more time and skill.

Is it not that the minimum schedule was originally conceived to maintain a standard of professional proficiency? And if this is the case is there not some doubt that it has been entirely successful? Would increasing the fee on small jobs improve the quality of the profession per se? It is doubtful.

Although this is getting somewhat away from the subject, I wonder whether the entire fee schedule shouldn't be thrown out of the proverbial window and a standard of minimum services be established in its place. At the present time there are three types of fee which are in vogue. The first and most common is that which can be defined as the payment for services requiring superior knowledge. The second can be defined as a tip and means the dime thrown by the "lord of the manor" to the shoe black. The third is found in the nursery rhyme which starts Fee, Fie, Fo, Fum, and suggests the surreptitious and stupid use of fee reported over the CBC news broadcast with reference to one architect's income tax return.

It is possible that Canadians do not think too highly of the profession of architecture. No doubt this is caused by misunderstanding and jealousy from outside of the profession, and by a certain weakness from within. To increase the fee to the small client and decrease it to the large client may cause the average Canadian to, "wish to do something despicable to all but six and save those for pallbearers".

J. H. Cook, Calgary

There is little evidence that comes to mind indicating that such a statement as given above is really valid. Architects should have an increased fee for smaller jobs (say under \$10,000 or \$15,000), but to assume that after costs pass the first five hundred thousand or million dollars of cost the fee should decline by a certain fixed amount, would not be fair to the architect nor the public.

My experience tells me that fees quoted to the public should always be direct and uncomplicated in structure, and of a nature that becomes readily known and accepted by them. Further, there must be the large jobs with good fees to attract competition for quality of services from architects. Not only that, if architects can prove their value to the public at large, there is no need to consider ways and means of reducing their fees for higher costing jobs.

Lastly, the degree of specialization required in modern buildings requires that an architect be amply paid to enable him to secure the best consultant help available, in order that the quality of service may be maintained on the highest standards possible.

I do not agree that the eventual adoption of a sliding scale of fees in an inverse ratio to the cost of the work is inevitable.

H. L. Bouey, Edmonton

During the past few years it has become obvious that the architectural profession is an integrated part of the building industry. As compared to former times when the architect concerned himself largely with the design and ornamentation of buildings, he now is involved in almost every phase of the construction, engineering, inspection and legal aspects of building. His responsibilities are greater and hence it is of great importance that his fees are adequate to provide for this diversified service.

Our Provincial Architectural Associations, as well as the various Provincial Engineering Associations, have been examining their fee schedules seriously to try and adjust them to present varying conditions, particularly to the inflationary trend in construction costs.

The diminishing fee has gained certain support. Basically this pre-supposes that the rate of fee is graduated downward as the cost of the work increases. The reasoning is, that under efficient operation, an architect's production costs are proportionately less on large work than on small or medium size work. The profit ratio to gross fee is thus much greater.

Since architecture is a business, the principle of "a fair product for a fair profit", applies. There is no doubt that architectural service, like any product, can earn a fair profit, an exorbitant profit, or even be priced out of business. On the red side of the ledger it can also make a loss.

At the present time, fees are paid on a percentage basis of the cost of the work, or on a time plus overhead basis with a lump sum fee. A great deal of work seems to be done on a lump sum basis. While this is generally not considered ethical, nonetheless, it is general with builders, package dealers and bargain architects.

Each of these methods have distinct advantages and disadvantages. However, since the percentage basis is the most generally used, the diminishing percentage fee seems to be a reasonable development with respect to our business as a "Service".

Our customers are the public. They hire us for service. They are generally not too sure what we are to provide or whether it is good or mediocre service they receive. They know nothing of how this service is provided. However, Mr Public is sure of one thing, and that is that the architect's fees are too high. A graduated diminishing fee would certainly create a public confidence that an attempt is being made to restrain fees.

The architect now has many competitors including engineers, builders, package dealers, industrial designers, office design services, store front specialists, product engineering services, give-away plans, bootleg or bargain architects and draughtsmen, and finally the magazines. A very great proportion of the work obtained from these sources is of high quality and is a direct loss to the practising architect. Much of this loss is due to the higher fee charged by the architect. The diminishing fee might meet some of this competition.

We are now going through a period where on very large buildings the architect frequently is getting more in fees than the contractor makes in profit. This of course is due to the extreme competition in bidding procedures now existing. There has been amongst all the legitimate contractors an effort to hold the inflationary cost spiral. Is it not perhaps wise for us to think along these lines?

Can the architects afford the diminishing scale of fees? Not on general work. Production costs of our services are extremely high on low and medium priced buildings, due largely to inefficiency of employees and the increasing demand on the principle to take care of business and paper work, as compared with technical work, and the large part of fees now paid to consulting engineers.

However, as the job increases in size, there comes a point where the profit portion of the fee gets very large. Since most corporations are required to pay out their appropriations within fiscal year periods, the architect is often embarrassed income tax wise by receipt of large amounts of fees against which the deductible expenses are small or have been paid in previous tax years. It is obvious that where conditions like this exist, the sliding or diminishing fee scale would benefit the client and not adversely affect the architect's income.

In the Province of Quebec, the professional engineers operate on a diminishing fee. The Province of Quebec Association of Architects have proposed to introduce similar features in their new "Schedule of Minimum Fees". It is felt that it is for the ultimate good of the profession.

The Corporation Tax Structure has given rise largely to the "Lease Back" system and the Package Deal, and other obvious financial advantages.

There seems to be some indication that architectural services may be obtainable on large buildings at fees below the various minimum tariffs.

There is a very serious school of thought supported by many architects that suggests that, if we are to survive professionally, we must face the realities of our costs to the public and not price ourselves out of business. The diminishing fee will help us. It will not be the cure all. On large work it would seem inevitable.

Randolph C. Betts, Montreal

When I attended the 1959 AIA Convention I had my first introduction to Producers' Council. What is Producers' Council? It is a Washington-based organization consisting of 136 manufacturers of building products, with 43 chapters in various parts of the United States, and an annual budget of about \$125,000. The prime objective of the Council — and an extremely practical one — is to produce better quality product literature for the design profession.

However, the arresting feature about Producers' Council, observed from the point of view of Canadian architecture, is the fact that these manufacturers of materials have experienced direct affiliation with the AIA since 1929. Producers and architects serve on the joint board providing permanent close consultation between the profession and major suppliers.

Such liaison, regarded alone, appears worthwhile but the real benefit from architect-supplier co-operation flows from a frequent exchange of information at the local community level.

Would a Producers' Council-type organization, tailored to meet differing conditions in the Canadian building industry, help to satisfy an existing need in our country? How many architects and specification writers, deluged by a flood of imploring literature prepared with incomplete knowledge of the profession and how it operates, are compelled to destroy expensively prepared but frequently completely useless or irrelevant product literature? Better architect-supplier liaison gained through a central committee and by local consultation may prove to be the answer. The question has been posed before — at Toronto in 1957 — but in a different context. The sights were then set low. Only a local chapter of the Producers' Council was intended.

Today, many members of the profession are convinced that there is a definite need for the Canadian counterpart of a Producers' Council, providing it is established on a national basis. Last September President Maurice Payette asked the President of the Canadian Construction Association if the Manufacturers and Suppliers Section of CCA, a group numbering over 300 major manufacturers in Canada, would be interested in reviewing the Producers' Council proposal. Both the RAIC and CCA formed study groups and, after a review of all relevant factors, met jointly at Ottawa last March 16. The CCA has voted in principle for the establishment of a co-operative organization with the RAIC, and the new machinery may be referred to ultimately as the "RAIC-CCA Committee on Building Materials."

In the meantime the two study groups are formally reporting to their respective management committees this month. This represents an opportunity for the profession to cement strong, mutually beneficial relations with an important part of the construction industry. It will make possible the provision of an improved product information service for the whole of the profession.

Will we rise to the challenge?

C'est en 1959, au Congrès de l'AIA que j'ai, pour la première fois, entendu parler du Producers' Council. De quoi s'agit-il? D'un organisme dont le siège est à Washington et qui groupe 136 manufacturiers de produits de construction, avec 43 succursales dans diverses régions des Etats-Unis et dont le budget annuel se chiffre à \$125,000. Le but du Conseil est très pratique: faire des publications de meilleure qualité sur les produits, à l'intention de ceux qui les utilisent.

Ce qui frappe l'architecte canadien dans ce Conseil, c'est que les manufacturiers de matériaux sont directement affiliés à l'AIA depuis 1929. Des producteurs et des architectes siègent au bureau conjoint, ce qui permet des relations étroites et permanentes entre architectes et grands fournisseurs.

Ce seul rôle de liaison serait déjà précieux, mais le grand avantage de la collaboration entre architecte et fournisseur vient d'un échange constant de renseignements au niveau local. Un organisme du genre du Producers' Council, mais adapté à l'industrie de la construction au Canada, pourrait-il satisfaire un besoin réel dans notre pays? Combien d'architectes et d'auteurs de devis, inondés sous une documentation louangeuse dressée avec une connaissance insuffisante de la profession d'architecte et de ses exigences, sont obligés de jeter ces annonces parfois coûteuses et souvent inutiles? La solution au problème serait-elle dans l'amélioration des échanges entre architectes et fournisseurs au moyen d'un comité central et de consultations locales? La question a déjà été posée, à Toronto en 1957, dans un contexte différent. Mais on était peu ambitieux alors, on ne songeait qu'à la création ici d'une succursale du Producers' Council.

Aujourd'hui, plusieurs architectes sont convaincus que nous avons vraiment besoin au Canada d'un organisme qui soit le pendant du Producers' Council, pourvu qu'on le crée au niveau national. En septembre dernier, notre président, M. Maurice Payette, a demandé au président de l'Association des constructeurs canadiens si la section des manufacturiers et fournisseurs de l'Association, qui groupe plus de 300 grands manufacturiers au Canada, serait intéressée à reprendre l'étude de la proposition du Producers' Council. L'Institut royal et l'ACC ont créé des groupes d'étude, et, après examen de tous les facteurs pertinents, ils se sont réunis à Ottawa le 16 mars dernier. L'Association a adopté en principe la création, avec l'Institut royal, d'un organisme coopératif qui pourrait éventuellement s'appeler le Comité de l'IRAC et de l'ACC sur les matériaux de construction.

D'ici là, les deux groupes d'étude doivent présenter leur rapport à leurs comités de gestion respectifs ce mois-ci. C'est là une occasion pour les architectes d'établir des relations étroites et mutuellement avantageuses avec un secteur important de l'industrie de la construction. Il en sortira un meilleur service de renseignements sur les produits, dont toute la profession bénéficiera.

Saurons-nous nous montrer à la hauteur de la tâche?



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CANADA

Condensation on Inside Window Surfaces

by A. G. Wilson

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Condensation on inside window surfaces is a common wintertime complaint in most of Canada, especially in buildings in which some attempt is made at humidification. Window condensation not only reduces visibility and is psychologically irritating but it can lead to severe damage of surrounding construction from wetting. It is only one of several aspects of window performance, but it is one that can be observed directly, whereas other shortcomings may not always be so evident. Condensation between the panes of double windows is a separate problem and is not covered in this note.

Condensation occurs on inside window surfaces whenever surface temperature falls below the dew-point temperature of the room. Window construction often represents the poorest component of the building enclosure in a thermal sense, even when double windows are used, and hence has the lowest inside surface temperature. The window, therefore, determines the practical limit of humidity for the space in winter, and condensation may appear on the glass, frame, or sash, depending on the relative thermal characteristics of these three components.

Condensation on the Glass

The relative humidity in a room at which condensation will occur on the inside surface of the glass depends on the glass surface temperature, which in turn depends on all the factors affecting heat flow through glass. The principal factors are: the inside and outside air temperatures adjacent to the glass surface, the number of panes of glass, and the air flow condition over inner and outer surfaces. Additional factors affecting surface

temperature of multiple pane windows are width of the air space, convection within it, and the extent of air leakage into and out of the air space. Drapes or other window coverings, width of sill and stool, and the room heating arrangement are important insofar as they affect the principal factors referred to. The thickness of the glass is usually unimportant within the range of thicknesses normally used in buildings, since glass has a relatively high thermal conductivity.

Glass surface temperatures can be readily calculated using simple heat transfer relationships, and inside humidities at which condensation will occur on glass surfaces be determined for any outside temperature condition. The results of calculations will depend on the surface heat transfer coefficients selected. Table I gives results of such calculations for single, double, and triple glazing for two wind conditions, with natural convection over the inside surface. The assumption of natural convection over the inside surface is valid unless special steps have actually been taken to blow air over the window. Merely locating the room heat supply under the window will not necessarily increase the inside surface heat transfer coefficient, but will tend to increase the air temperature adjacent to the window. Values in Table I are for periods of no solar radiation.

In multiple glazing, temperature gradients are set up in the air spaces as a result of convection. The temperature of the air space at the bottom will be several degrees lower than that at the top, and this is reflected in inside glass surface temperatures. It explains why condensation on inside surfaces of double

TABLE I — MAXIMUM HUMIDITIES FOR NO WINDOW CONDENSATION AND CORRESPONDING INSIDE SURFACE TEMPERATURES

Outdoor Temp. °F	Surface Temperatures and Relative Humidities with Inside Temperature at 70°F											
	Single Window				Double Window				Triple Window			
	15 mph wind		No wind		15 mph wind		No wind		15 mph wind		No wind	
	Temp. °F	R.H.	Temp. °F	R.H.	Temp. °F	R.H.	Temp. °F	R.H.	Temp. °F	R.H.	Temp. °F	R.H.
40	47	44%	55	59%	59	68%	61	73%	63	78%	64	81%
20	32	24%	45	41%	52	53%	56	61%	59	68%	60	71%
0	17	12%	35	27%	45	41%	50	49%	54	57%	56	61%
-20	2	6%	24	17%	38	32%	44	39%	50	49%	52	53%
-40	-14	2%	14	10%	31	23%	38	31%	45	41%	48	46%

windows usually occurs first at the bottom. Tests have shown that calculated values of surface temperature are in good agreement with surface temperatures measured at the centre of windows. The glass surface temperature at the bottom will be lower than the calculated values and the limiting values of humidity for no condensation will be correspondingly lower. This effect may be counteracted to some extent by locating the heat source beneath the window. Thermal characteristics of double glass are little affected by increasing the air space thickness beyond $\frac{3}{4}$ to 1 inch; even reducing it to $\frac{1}{4}$ inch leads to an increase in heat loss of only 15 per cent.

The higher humidities possible with multiple glazing are evident from Table I. With single glass, humidities above 25 per cent cannot be carried with outside temperatures below 20°F without excessive condensation. For most areas in Canada windows must be designed for outdoor temperatures below 20°F; double windows are used extensively for residences, although in Eastern Canada single windows are often selected for commercial buildings in order to reduce capital costs. To overcome the limitations imposed on relative humidity by single glass, heating systems providing a degree of forced convection over the window are sometimes employed.

Table II shows the effect of forced convection over the inside surface of single glass with an outdoor wind condition of 15 miles per hour upon surface temperatures and the corresponding maximum room humidities which can be carried without condensation. An average inside air velocity of $2\frac{1}{2}$ miles per hour over the lower part of the window is probably the maximum that can be expected with typical air-conditioning units located at the window stool. Values given for an air velocity condition of 5 miles per hour correspond very closely to those for air at 80°F and a velocity of $2\frac{1}{2}$ miles per hour adjacent to the inside window surface. This increase in temperature adjacent to the window is the maximum that should be expected with under-window heating systems.

It may be seen from Table II that significant increases in surface temperature and maximum permissible humidity can be achieved by forced convection and increased air temperature adjacent to the window. These values are still lower than those for double windows with natural convection. It should be realized also that such forced convection and higher air temperatures result in increased heat loss of from 50 to 70 per cent through single glazing. On the other hand, the heat loss through single glass is from two to four times that through double glass, depending on the inside convection conditions. The cost of single glass, particularly with

forced convection, is therefore comparatively high in terms of energy requirements for heating.

Drapes and curtains can affect both the air temperature adjacent to a window and the inside convection condition. These may increase or decrease surface temperatures and condensation, depending on their location with respect to the window and heating outlet. Window stools interfere with air flow at the bottom of the window and tend to lower temperatures in this region.

Condensation on the Frame and Sash

The surface temperatures of wood frames or sash are normally higher than those of the inside surface of the glass because of the relatively high thermal resistance of wood and the thicknesses used. For example, the thermal resistance of $\frac{3}{4}$ to 1 inch of wood is equal to that of an air space, so that condensation on wood members is usually not a problem. The thermal conductivity of aluminum, on the other hand, is about 800 to 1400 times that of wood, and mild steel 300 times that of wood. This means that the resistance to heat loss of metal members that are continuous from inside to outside is extremely low.

The inside surface temperatures of metal frames or sash, continuous from inside to outside, will depend largely on the heat transfer coefficients at inside and outside surfaces. Thus the area exposed inside and out

is a major factor in determining inside surface temperatures. The greater the surface area of sash or frame exposed inside, relative to outside, the higher will be the inside surface temperature. Unfortunately it is not unusual to provide a greater exposure to outside than to inside, at least for mullion and sill sections. Nominally, if the inside exposure is equal to the outside the inside surface temperature will be essentially that of single glass. However, this is true only if the surface heat exchange coefficients are the same for both. This coefficient is generally lower at the stool or bottom rail because of the interference with air flow at this location, but with aluminum it will be significantly lower, perhaps only one-half that for the glass, because of its high reflectivity. The lower rate of heat transfer at the surface of the metal will result in surface temperature lower than that of single glass and the humidity at which condensation will occur will be correspondingly lower. Some improvement could be effected by reducing the reflectivity of the inside aluminum surfaces. Inside surface temperatures of the frame are also affected by heat exchange with the surrounding construction, and for this reason it is desirable to make structural connections with the wall nearer the warm inner surface.

One method used to overcome the high heat conduction of metal frames or sash and to raise inside surface temperatures is to provide a break in the member with an in-

TABLE II — EFFECT OF FORCED CONVECTION OVER INSIDE SURFACE OF SINGLE WINDOWS

Outside Temp. °F	Surface Temperatures and Relative Humidities with Inside Temperature at 70°F and Outdoor Wind of 15 mph					
	Natural Convection		Forced Convection air velocity = 2½ mph		Forced Convection air velocity = 5 mph	
	Temp. °F	R.H.	Temp. °F	R.H.	Temp. °F	R.H.
40	47	44%	51	51%	53	55%
20	32	24%	38	31%	41	35%
0	17	12%	25	18%	29	21%
-20	2	6%	12	9%	17	12%
-40	-14	2%	-1	5%	6	7%

sulating separator between inside and outside elements. This approach is not common with single sash, although it might be used to advantage where condensation on frames or sash is objectionable. Thermal breaks are absolutely necessary with multiple glazing if their advantage in permitting higher room relative humidities is to be fully utilized. Otherwise, condensation will occur on the frame at approximately the limiting relative humidities for single glass.

Ideally, a frame or sash should be designed so that the inside surface temperature of the metal is at least equal to the minimum temperature on the inside surface of the glass. The thickness of the thermal break required to achieve this ideal will depend on details of the particular frame or sash design, but two of the major determining factors are the area of inside and outside exposure and the surface heat exchange coefficients of frame or sash. Additional factors are the cross-sectional area of the thermal break normal to heat flow and its thermal conductivity; the values of both should be as low as is practical. In general, thermal break materials must be sufficiently rigid to permit the two elements of the frame or sash to act as a structural unit when bolted together. As suitable materials are unlikely to have a conductivity less than that of wood, the thickness of the thermal break required will be not less than $\frac{1}{2}$ inch unless its cross-section is unusually small, even when other thermal factors are favourable; it may be 1 inch or more with some arrangements. This is in excess of the thermal separation provided in several metal windows on the market, and it would appear that these may fall short of the ideal with respect to the thermal performance of frames and sash and room humi-

ditities that can be carried without condensation.

A special problem exists with metal frames or sash for windows using factory sealed double glazing units. Since these units may be only $\frac{3}{4}$ inch thick, the space available in the member for a thermal break is limited. Furthermore, the spacer and surrounding channel of the units may contribute to lower edge temperatures. More skill will be required in the design of metal frames or sash for such units if the advantage of double glazing is to be fully utilized.

Summary

Window surfaces usually determine the maximum room relative humidity that can be carried without condensation. Condensation can occur on glass, sash, or frame, and the thermal performance of each must be separately considered. Multiple glazing permits significantly higher relative humidities than single glazing, although the humidities that can be carried with single glass can be increased to some extent by forced convection and heated air. The heat loss through single glass is at least twice that through double glazing, and is further increased when forced convection is employed.

In order to obtain the full benefit of multiple glazing in permitting higher relative humidities without condensation, metal frames and sash must incorporate thermal breaks. The thickness required to maintain frame temperatures equal to the minimum glass surface temperature will depend on the specific design of the window, but a minimum of $\frac{1}{2}$ to 1 inch of material with a thermal conductivity equivalent to that of wood is usually required.

This is one of a series of publications being produced by the Division of Building Research of the National Research Council as a contribution toward better building in Canada. The Division has issued many publications describing the work carried out in the several fields of research for which it is responsible. A list of these publications and additional copies of this Building Digest can be obtained by writing to the Publications Section, Division of Building Research, National Research Council, Ottawa, Canada.

Institute News

Annual Meeting Alberta Association of Architects

The 49th Annual General Meeting of the Alberta Association of Architects was held at the Banff School of Fine Arts, Friday and Saturday, February 26-27. Registration began on Friday afternoon, followed by a reception and dinner at which the members of Session '60 were guests of the Alberta Association. Session '60 had concluded five days of serious discussion earlier in the day, and its members were in a mood for celebration. The informal surroundings at the Banff School provided an atmosphere impossible to duplicate in the railway hotels that house most conventions. One Toronto guest who spent the evening trying to analyse "western hospitality" agreed that it was something to come and enjoy, and was not a formula that could be exported.

The business sessions on Saturday, attended by about forty members, included the President's address by retiring President James Bell, and the welcoming of new members to the Association. The previously circulated minutes and reports were adopted. Appointments to 1960 committees were referred to incoming Council.

The luncheon speaker was Robbins Elliott, Executive Director, RAIC, who reviewed the expanded activities of the RAIC, and the reorganization of the *JOURNAL*. At the conclusion of the luncheon the election results were announced, and the incoming Council retired to elect its officers. G. B. McAdam was elected President,

with T. A. Groves as First Vice-President, D. K. Bissell as Second Vice-President, D. G. Forbes as Secretary, and R. F. Bouey as Treasurer. Other Councillors elected were J. B. Bell, J. A. Cawston, J. C. Clayton, H. W. Seton, D. L. Sinclair and B. Wood.

The afternoon session reviewed attempts during the past year to have the Government of Alberta agree to changes to the Architects Act, as approved at the previous annual general meeting. There has been little success because the Government want no raising of the standards of the professions in the province as long as a shortage of professional people exist in Alberta. The meeting agreed that there was no apparent shortage of architects in Alberta, and that statistics in proof of this should be sought. The meeting also approved a resolution indicating the willingness of architects to serve on committees with teachers, engineers, and other specialists to make recommendations regarding amenities in school buildings in Alberta.

The Annual Meeting concluded with the President's Reception and Annual Dinner. At the dinner President Gordon McAdam presented new members with diplomas. The guest speaker was Dr Thomas Howarth, Director, School of Architecture, University of Toronto, who spoke on architectural education. Since Dr Howarth had been director of Session '60, he briefly reviewed the Session and emphasized the importance of continuing with future Banff Sessions.

Following the dinner there was dancing and a variety of impromptu entertainment provided by members and guests. *Don Sinclair*

MANITOBA HOME-COMING

Graduates in Architecture and in Interior Design will hold an Alumni Reunion on the Manitoba Campus for a day and a half prior to the Annual Assembly of the Institute. Celebrations will commence with a banquet on Tuesday evening, May 31st, at which Mr Basil Spence, President of the RIBA, will be the guest speaker. The Wednesday program will include tours of the City, a Campus Luncheon, class meetings, and an inspection of the new buildings on the Campus. Registration forms and detailed information will be mailed to all Manitoba graduates in the near future.

S. R. Kent to Report on European Modular Coordination Studies

Stanley R. Kent, Associate Professor, School of Architecture, University of Toronto, and consultant to the Division of Building Research, NRC, will represent DBR at the Plenary Committee of the European Productivity Agency Project on Modular Co-ordination in Building in London, England, in April. This meeting concludes a seven-year project by eleven European countries on the theory of application of co-ordination of building components. While abroad, Mr Kent will also study modular co-ordination in practice in Sweden, Denmark and Holland. After his return to Canada in May, he will prepare a paper on the subject for the *Journal*.

Letters to the Editor

Editor, *RAIC Journal*:

We like the idea of receiving Building Digests from the Division of Building Research with our *Journal*.

May we suggest distribution of a suitable binder in which these would be stored.

Alexander B. Leman, Don Mills, Ont.

Editor, *RAIC Journal*:

There never was any thought of tearing down the Cobourg Town Hall. On the contrary it is being gradually restored and renovated and I am sure will be preserved as a very important historic link with the past, particularly, the Court Room and the Opera House.

J. D. Burnet, Mayor of Cobourg

POSITION VACANT

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1960 Council of the Alberta Association of Architects, left to right: J. Cawston; T. Groves, 1st Vice-President; J. Bell, Past President; H. Seton; G. McAdam, President; R. Bouey, Treasurer; J. Clayton; B. Wood; K. Bissell, 2nd Vice-President; D. Sinclair; G. Forbes, Secretary.

Alberta Editorial Board Appointed

The Council of the Alberta Association of Architects has appointed the following members to the Alberta Editorial Board for 1960:

H. A. Dunn, Chairman, 325 Le-

Marchand Mansions, 116th St, and 100th Ave, Edmonton

J. Annett, Edmonton

A. Bowers, Calgary

M. Evamy, Calgary

K. Bissell, Red Deer

RAIC Presents Silver Bowl to Recently Retired RIBA Secretary

In appreciation of his many services to Canadian architects and to the Institute, the RAIC has presented a silver bowl to Mr C. D. Spragg, recently retired secretary of the RIBA. The gift was presented at Canada House, London, on March 10 by Hon. George Drew, the Canadian High Commissioner, on behalf of the President and members of the Institute.

Mr Spragg has acknowledged the gift in the following letter to Mr Maurice Payette, President of the RAIC:

"My dear President:

"At a very pleasant small informal gathering on Thursday last, Mr George Drew, the Canadian High Commissioner in London, presented me with a very lovely silver bowl on behalf of the Royal Architectural Institute of Canada. The meeting was attended by the President of the RIBA (Mr Basil Spence), Mr Kenneth Cross, Mr T. E. Scott and a few intimate friends. It was no occasion for set speeches but I did try, however inadequately, to express my gratitude not only to His Excellency for the kind and gracious way in which he made the presentation — but

to the Royal Architectural Institute of Canada for their generous action in making this handsome gift to me. I shall prize and treasure it for the rest of my life — not that I need any reminder of my two happy visits to your wonderful country. The kindness and hospitality extended to me all the way from Quebec City to Vancouver and Victoria, B.C. were something out of this world. I value tremendously the friendship of so many of those whom I met in Canada and with many of whom I am in constant touch.

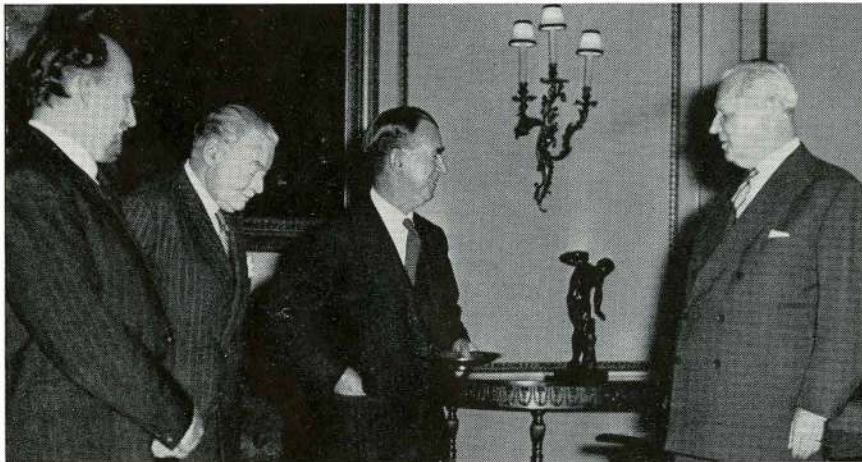
"I am glad to feel that I may have contributed in some small way to making even closer the ties of friendship between the RIBA and the RAIC.

"And I am very proud to be the first Honorary Corresponding member of the RAIC — this is an honour which I value very greatly.

"Will you please express my sincere gratitude to the Council and members of the RAIC and my best wishes for the future welfare of the Institute and its members.

"With all good wishes to you personally, I am,

Yours sincerely,
C. D. Spragg"



The presentation to Mr C. D. Spragg. Left to right, RIBA President, Basil Spence, Mr Kenneth Cross, Mr Spragg and Hon. George Drew, Canadian High Commissioner, who made the presentation on behalf of the RAIC.

Oscar Cahan Memorial Award

The Oscar Cahan Memorial Award, instituted in 1957 by the Art Directors' Club of Toronto in memory of the well known personality in the field of art in commerce and industry, has been awarded to Mr John C. Parkin of Toronto. The award is made periodically to individuals who have for a consequential length of time maintained a continuous and high level of personal creativity. Mr Parkin graduated in architecture with honors from the University of Manitoba, and obtained a masters degree from Harvard University where he studied under Dr Walter Gropius. He is president of the Canadian Arts Council.

Manitoba Editorial Committee Presents 1960 Assembly City

The *Journal* is indebted to the Editorial Committee of the Manitoba Association of Architects for the preparation of the special section on Winnipeg in this issue. The material was selected with a view to presenting something other than the usual tourist information about the 1960 Assembly City, as a glance at the contents page will show.

Our thanks to Mr Norman C. H. Russell and the members of his Committee, Messrs Kenneth W. Bacon, Donald R. Wookey, Joseph Kandrac, Charles Herman and Henry Kalen, and the contributors.

Obituary

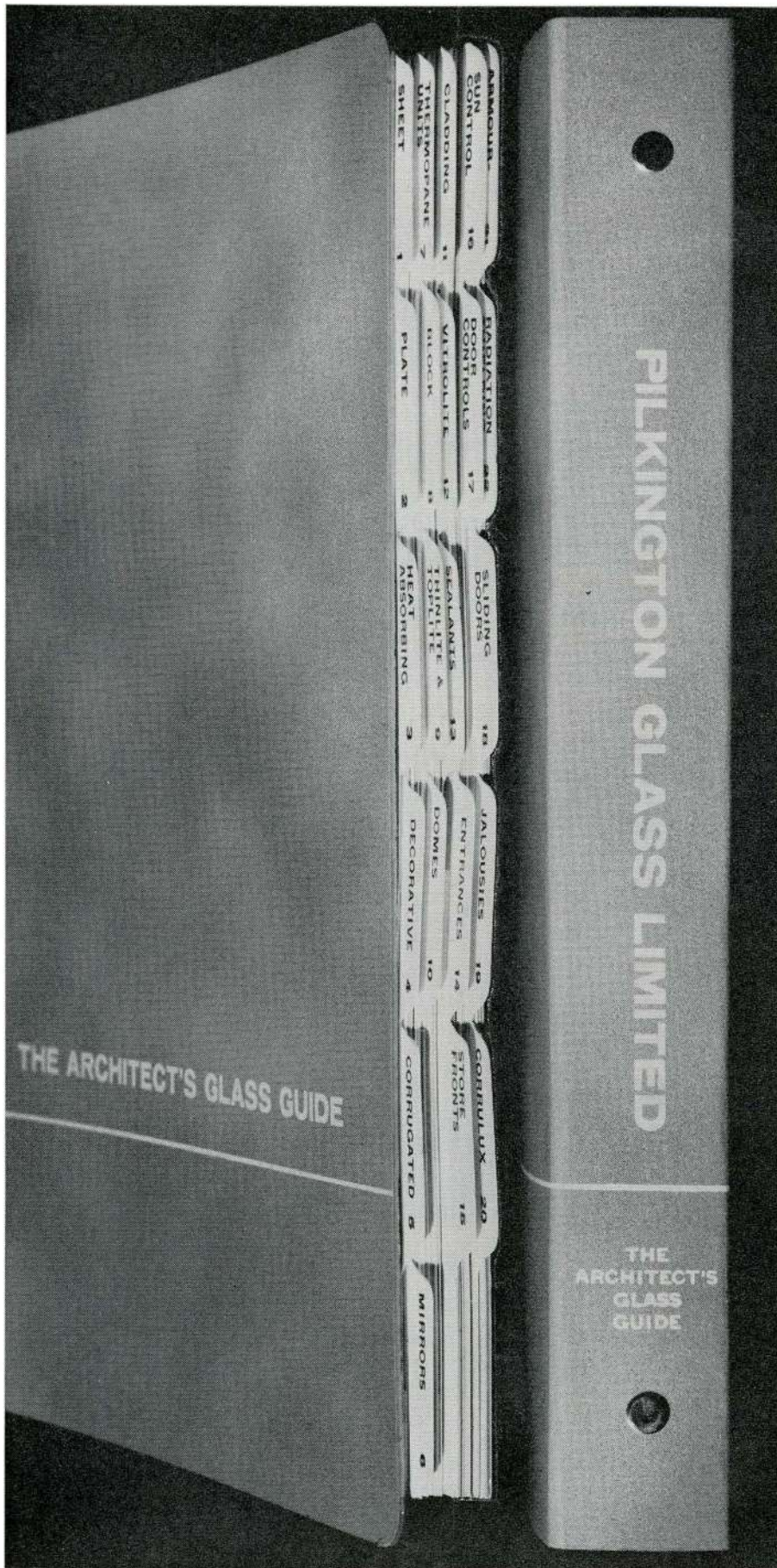
HENRY JOHN BURDEN, B.A.RCH (TOR.) M.F.A (PRINCETON) D.S.O., D.F.C., M.C., M.R.A.I.C. It is difficult to put in a few words all one would like to say of so many sided a person as the group-captain, architect and lecturer whom we knew, affectionately, as Hank. Some could write of him, as did the padre recently, as a CO greatly loved and respected by officers and men at many RCAF stations; some of us knew him as a colleague in the School of Architecture, and many more knew him as a friend. The common factor in all these relationships was that Hank was loved, and one does not hesitate to use the word, by all who knew him. Unlike other people, he seemed to have no acquaintances — only friends who treasured his friendship as a very precious thing.

During thirty years of fairly close association, I never heard him speak of the first war where he was credited with twenty-one German planes of which he bagged five in one day. I learned only last week of his duel in the air with the Baron Richtofen which ended only when both pilots were out of ammunition. It would not be from him that one would learn that, in the last war, he commanded an operational station from which bombers steadily raided Germany. Part of the secret of his personality was his modesty, and an almost boyish sense of fun coupled with a most infectious enthusiasm. These qualities were always with him whether, for the moment, he was playing the part of architect, lecturer or host.

An episode that gave him great pleasure in his life between wars was the founding of the department of aeronautics at Notre Dame University. Seated round the conference table was a most distinguished group of flyers of whom I remember only Rickenbacker, Bishop, Will Rogers and Henry John Burden.

His influence on architecture has been slight, though the few houses he did were all marked by exquisite taste. On the other hand, his influence on students between 1934 and 1937, when he enlisted, was profound. The student of every year was welcome in the Burden home, and on such occasions, by some magic, the relationship of professor and student changed immediately to colleagues delighting in each other's company — an atmosphere that Mrs Burden did not a little to create. One cannot help feeling that with his passing an era has closed. Certainly, for some of us, his kind will not be seen again.

E.R.A.



A new source of information on Glass The Architect's Glass Guide

This 172 page book on glass, prepared especially by the Pilkington Technical Department for Canadian architects is now available for distribution.

The contents in 22 sections, covers every type of structural glass and incorporate design details, available sizes and information on recommended usage. A wide selection of photographs illustrate glass applications by Canadian architects.

The Architect's Glass Guide is considered the most comprehensive book on glass in Canada and will be an invaluable addition to your technical library for use when you plan with glass. If you have not received your copy, ask your Pilkington representative or write or call your nearest Pilkington branch office.

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New DBR Publications

The Division of Building Research of the National Research Council, Ottawa, lists the following publications available in Supplement No 12 to its March, 1958, list of publications. Remittances should be made payable to the Receiver General of Canada.

NRC 5163: Absorption of sound by a strip of absorptive material in a diffuse sound field by T. D. Northwood, M. T. Grisaru, and M. A. Medcof — reprint from The Journal of the Acoustical Society of America, Vol. 31, No. 5, May 1959, p. 595-599. (.10¢)

NRC 5223: An investigation into processes occurring in solifluction by P. J. Williams — reprint from American Journal of Science, Vol. 257, No. 7, 1959, p. 481-490. (.25¢)

NRC 5270: Evaluation of factory-sealed double-glazed window units by A. G. Wilson, K. R. Solvason and E. S. Nowak — reprint from American Society for Testing Materials Symposium on Testing Window Assemblies, Special Technical Publication No. 251, 1959, p. 3-16. (.25¢)

NRC 5304: Observations of ground temperature and heat flow at Ottawa, Canada by D. C. Pearce and L. W. Gold — reprint from Journal of Geophysical Research, Vol. 64, No. 9, September 1959, p. 1293-1298. (.10¢)

NRC 5343: Modular coordination in practice. A record of four speeches for archi-

ects, contractors and manufacturers. August 1959, 32p. (.50¢)

NRC 5344: Soil temperature measurements at Saskatoon by K. R. Solvason and G. O. Handegord — reprint from Transactions of the Engineering Institute of Canada, Vol. 3, No. 2, July 1959, p. 67-73. (.10¢)

NRC 5428: Muskeg research: A Canadian approach by Ivan C. MacFarlane — reprint from Proceedings of the Highway Research Board, Vol. 38, 1959, p. 638-650. (.25¢)

NRC 5451: The mechanism of frost heaving in soils by E. Penner — reprint from Highway Research Board Bulletin No. 225, 1959, p. 1-22. (.50¢)

NRC 5456: Frazil ice — a review of its properties with a selected bibliography by G. P. Williams — reprint from The Engineering Journal, Vol. 42, No. 11, November 1959, p. 55-60. (.10¢)

NRC 5457: Precast concrete for winter building by C. R. Crocker and A. W. Smith — reprint from the Engineering Journal, Vol. 42, No. 11, November 1959, p. 61-65. (.10¢)

NRC 5481: Lightweight trusses bear up better than conventional roofs by A. T. Hansen — reprint from National Builder, Vol. 8, No. 11, November 1959, p. 38-40, 51. (.10¢)

BN 26F: Construction des gros murs par W. H. Ball. Octobre 1959, 7p. (No Charge)

BN 33F: L'ignifugeage du bois par D. C. Tibbetts. Octobre 1959, 8p. (No Charge)

Bib. 17: Annotated bibliography on vane testing in soils compiled by J. J. Hamilton. September 1959, 9p. (No Charge)

TT 830: Snow load on buildings. Translations of seven Russian papers translated by D. E. Allen. 1959, 63p. (\$3.00)

TT 838: A new waste disposal system by E. Lindstrom. From VVS, 29: 211-213, 230, 1958. (.50¢)

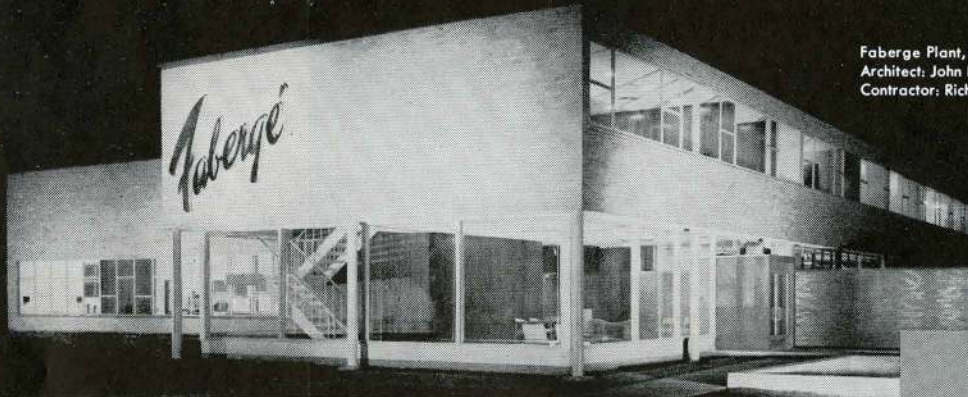
TT 839: Quick soils and flow movements in landslides by Ernst Ackermann. From Z. der Deutschen Geologischen Gesellschaft 100: 427-466, 1948. (\$3.50)

Les publications de la Division paraissent en français chaque fois que les circonstances le permettent.

Proceedings of International Clean Air Conference Published

The British National Society for Clean Air announces that the proceedings of the International Clean Air Conference held in London last October will be published next month. The volume will contain 78 pages of contributions by authoritative authors from 17 countries, with illustrations and diagrams. Copies may be obtained from the Society at Palace Chambers, Bridge Street, London, S.W.1. Price, which includes postage, is £1.12s.6d.

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Entitled "The Architect's Glass Guide", the book is designed for reference and specification purposes by architects. It contains 22 sections, ranging in subject matter from sheet, plate, heat absorbing, safety and decorative glasses to exterior facings, claddings, entries, chalkboards and sealants. Complete information is given on each type, including uses, qualities and characteristics, weights and sizes, etc. Detail drawings and photographs are included where they would be useful. Specification information also is listed with each product.

The book, which is in loose leaf form to permit insertion of additional sheets as they become available, fits in a file drawer, and the tabbed dividers between sections facilitate quick reference to subject matter. Further information may be obtained at the nearest branch of Pilkington Glass Ltd.

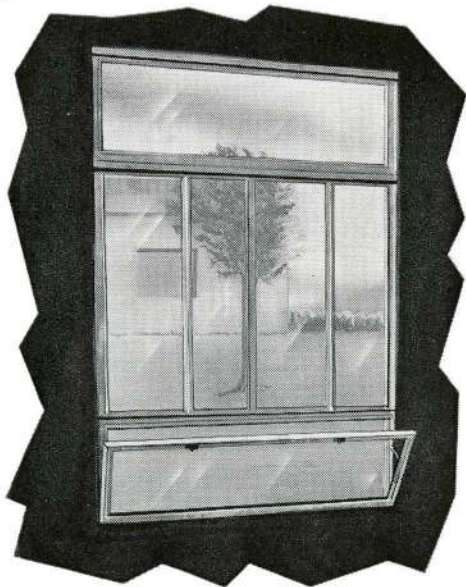


Robertson Heads Ceramic Group

Kenneth Robertson, general sales manager of Cooksville-Laprairie Brick Ltd, was elected president of the Canadian Ceramic Society at the annual meeting in March. With a membership of over 500, the Society is composed of manufacturers of brick and tile, glass, enamel ware, white ware, porcelain, pottery, refractories, cement and electronic components.



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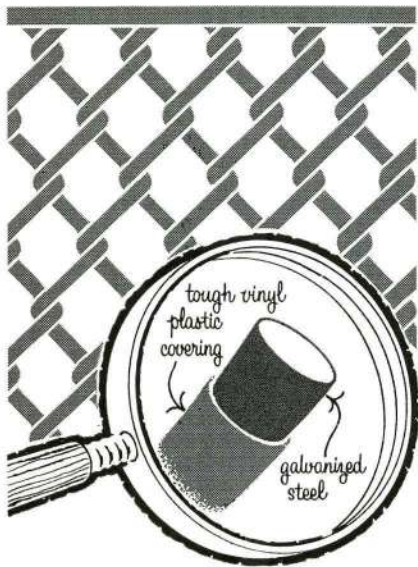
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The Dor-O-Matic Division of Republic Industries, Inc., Chicago, has announced the introduction of the new Dor-O-Matic Hydra-Cushion concealed in the floor door control. The Hydra-Cushion incorporates proven hydraulic cushioning for the control of doors at the end of the swing opening cycle. It is adaptable to every type of door in use today. Because Hydra-Cushion incorporates a built-in back stop and optional hold open, it does away with the need for door or floor applied stop devices. For further information write to Dor-O-Matic of Canada, Ltd, 550 Hopewell Ave, Toronto 5.

New Electric Convectors

Canadian Armature Works Inc. announces a new Electromaid Thin Line Baseboard Convection Heater. The new convectors are said to be designed for comfortable perimeter heating. With their slim and low construction they will fit under low picture windows and blend with modern decorating schemes. Permanent wall mounting models have knock-out holes for power supply connexion. The portable model is equipped with an eight foot plug-in extension cord. Further information may be obtained from the firm at 6595 St Urbain St, Montreal 14.

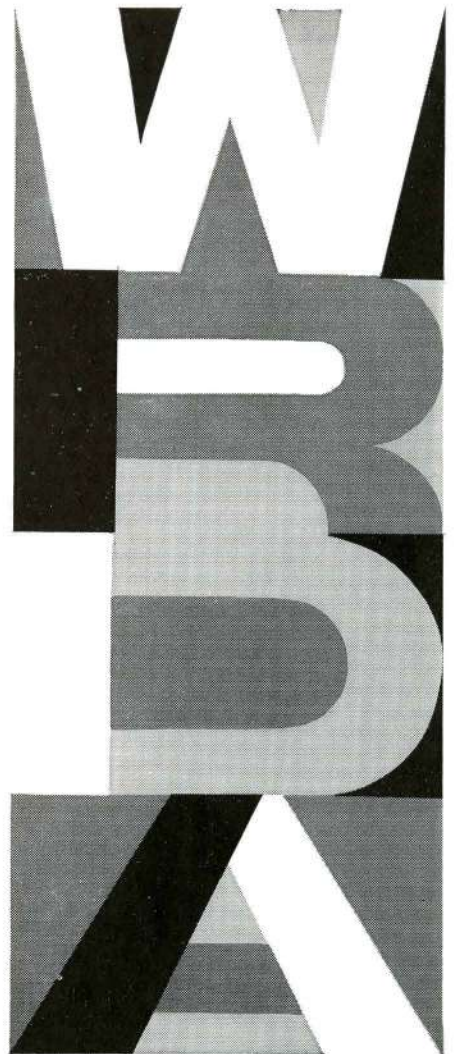
Welded Beam Connections

The Canadian Institute of Steel Construction, Inc., has issued a report of tests on welded two-way and four-way beam to column connexions. The report, which is the result of extensive investigation by the AISC, is contained in special bulletin No. 11 issued by the CISC, and copies are available from the Institute at 388 Yonge St, Toronto 1.

Porcelain Enamel on Steel

Specifications for architectural porcelain enamel on steel for exterior use are given in a tentative standard just released by the Porcelain Enamel Institute, Inc. The standard, which is based on the experiences and recommendations of architectural porcelain enamel manufacturers and other technical authorities from the industry, has been adopted by the Quality Development Committee, the Institute's specification authority. Detailed requirements are given for the base metal, processing requirements, the porcelain enamel finish, panel flatness and clips and attachments. Copies of the standard, PEI: S-100(59), "Specification for Architectural Porcelain Enamel on Steel for Exterior Use" may be obtained from Porcelain Enamel Institute, 1145 Nineteenth Street, N.W., Washington 6, D.C.

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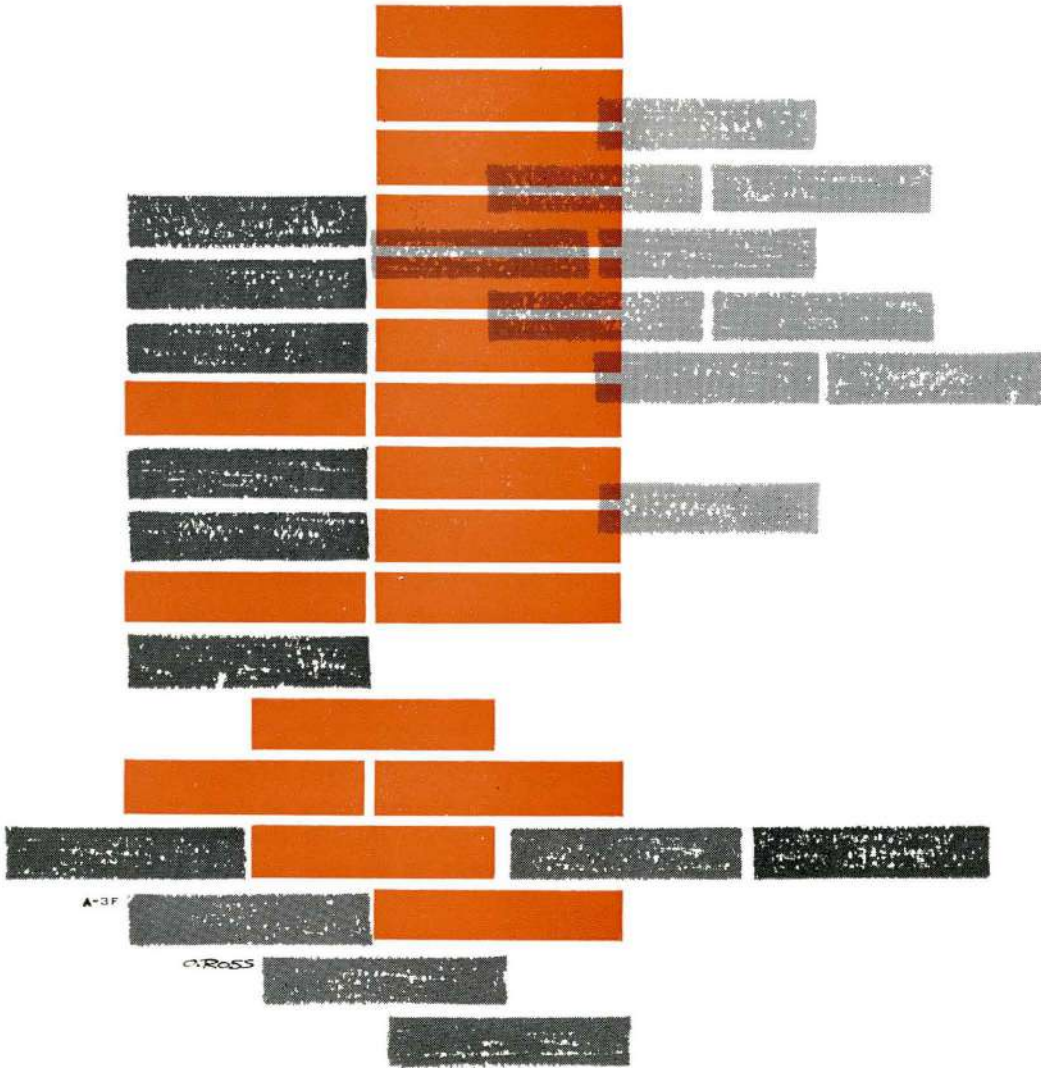
We can also learn from brick.

How sensible is this small handy shape, so useful for every purpose.

*What logic in its bonding, pattern and texture!**

MIES VAN DER ROHE

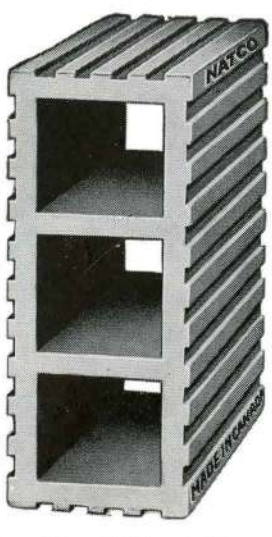
COOKSVILLE-LAPRAIRIE BRICK Limited; Montreal, Toronto, Ottawa



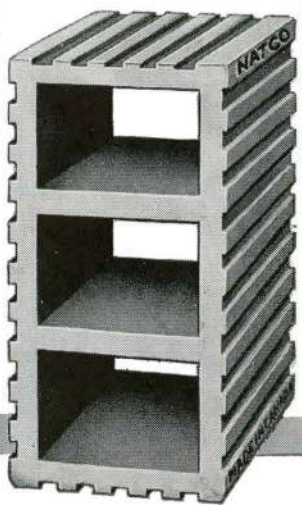
*Reprinted through the courtesy of The Museum of Modern Art, publishers of MIES VAN DER ROHE, by Philip C. Johnson, 1947



4" x 12" x 12"
Partition Tile
Code No. DD4212
WT 16#



6" x 12" x 12"
Partition Tile
Code No. 6212
WT 22#



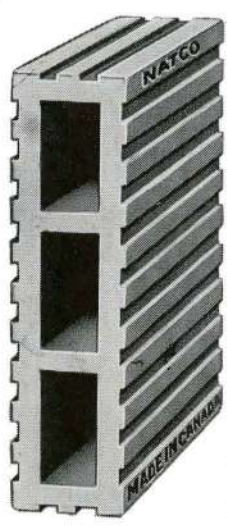
8" x 12" x 12"
Partition Tile
Code No. DD8212
WT 30#



10" x 12" x 12"
Partition Tile
Code No. DD10212
WT 36 #



2" x 12" x 12"
Partition Tile
Code No. DD2212
WT 14#



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Partition Tile
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STRUCTURAL SCORED PARTITION TILE

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ADVANTAGES—Unshrinkable, Fire proof, True to size, Rodent proof—Has high Insurance rating—High resistance to passage of sound and heat.

CONSTRUCTION NOTE—When plastering, wood or steel channel bucks at door openings should be 1½" wider than thickness of the tiles to act as grounds for plaster.

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Building Products Division

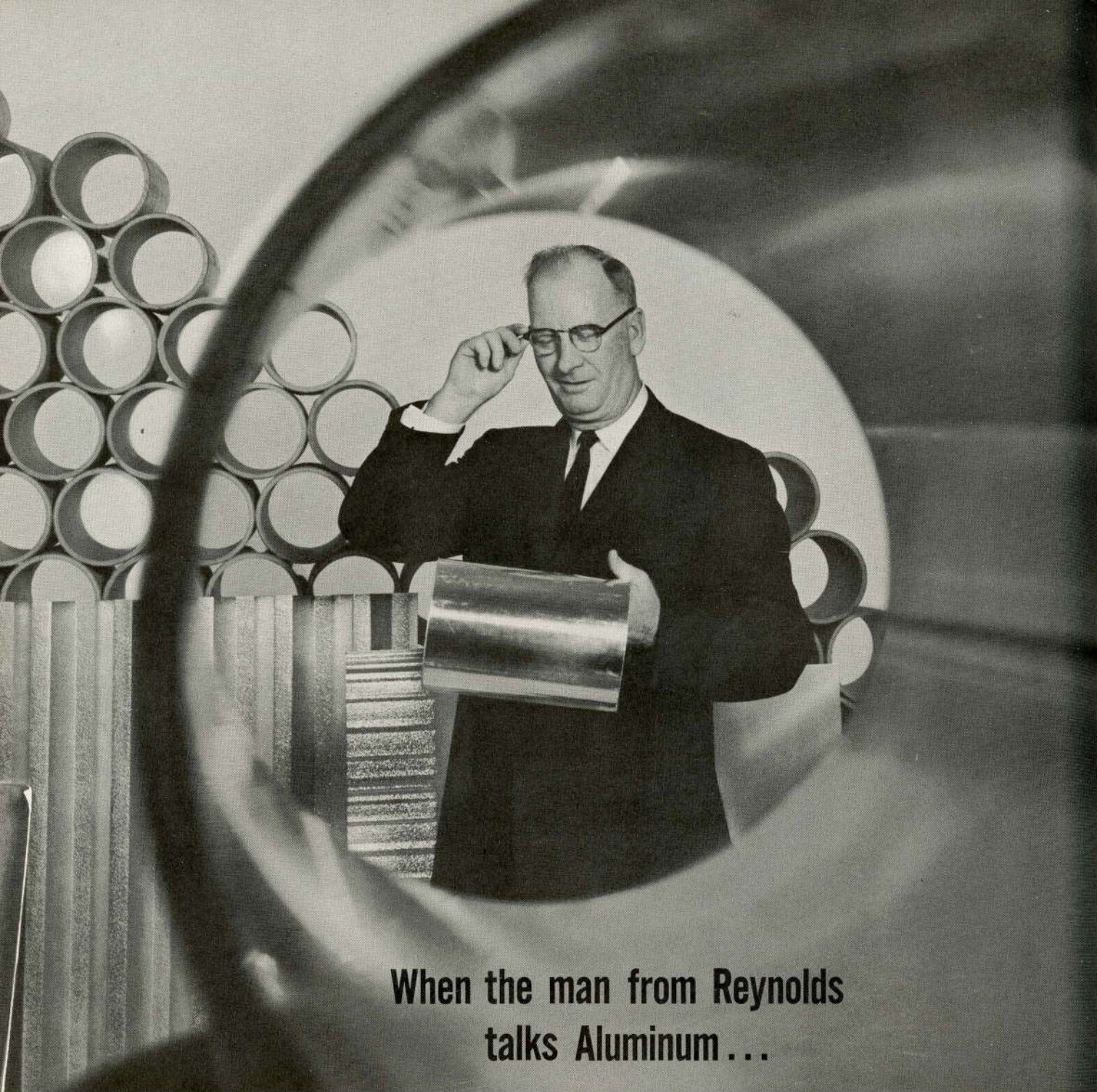
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ElectroMaid

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HEATERS AND REFRIGERATORS



Thin Line BASEBOARD CONVECTORS

ElectroMaid Thin Line Baseboard Convectors are particularly suitable for comfortable perimeter heating, to make cold walls and window areas a thing of the past. Designed for modern living, with their slim and low construction they will fit even under the lowest picture windows and they will blend perfectly with any modern decor. Available in sizes from 30" up to 108" long. Capacity of: 500W, up to 3000W. Voltage both 120 Volts and 240 Volts.

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- Low operating cost
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- Extremely efficient
- Heating elements guaranteed by 5 Year Protection Plan
- Available portable or permanent wall mounting
- Supplied with or without thermostat
- 7¼ in. high, 2¾ in. deep



UNIT HEATERS

Propeller type shown
Capacities from 1500W up to 60000W. Any voltage up to 575 Volts, as specified. Propeller and Blower type Unit Heaters for various industrial applications.

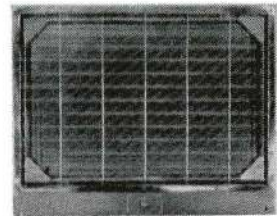
RADIANT SPOT HEATING FOR INDOORS & OUTDOORS

The directed rays from a Spot Heater heat persons and objects, and not vast surfaces and large quantities of room air. For this reason, heating with Spot Heaters is very economical, and since the heat is instant its use is recommended for rooms infrequently occupied. Spot Heating is healthy and natural, heats like the sun or like fire in a fireplace.



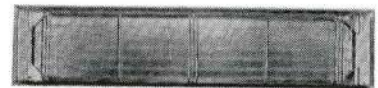
- Radiant
- Corrosion Resistant
- Modern Appearance
- Fully protected
- Easily installed
- Safety wired
- Low cost
- Sun's wonder rays

PERMANENT WALL MOUNTING RADIANT GLASS HEATERS



No. 1335

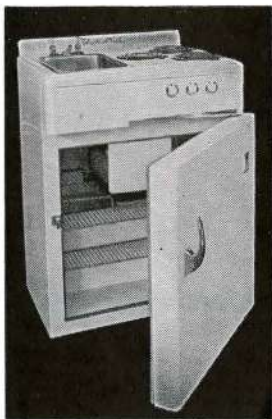
Available surface and recessed mounting, square shaped or long and low for Baseboard installation. With or without built-in thermostat.



No. 1384

It's a treat to heat with Radiant Glass Heaters because you SAVE MORE MONEY yet get better, more comfortable warmth in your home. The safest, most healthful, most efficient Heater ever made.

Capacities: 450W, 750W, 1000W and 1500W.



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Refrigerator — 5 cubic feet
Stove — 3 Burner
Sink — Stainless Steel

A Real Space Saver

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A complete kitchen unit

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6595 ST. URBAIN ST., MONTREAL • CR. 7-3191

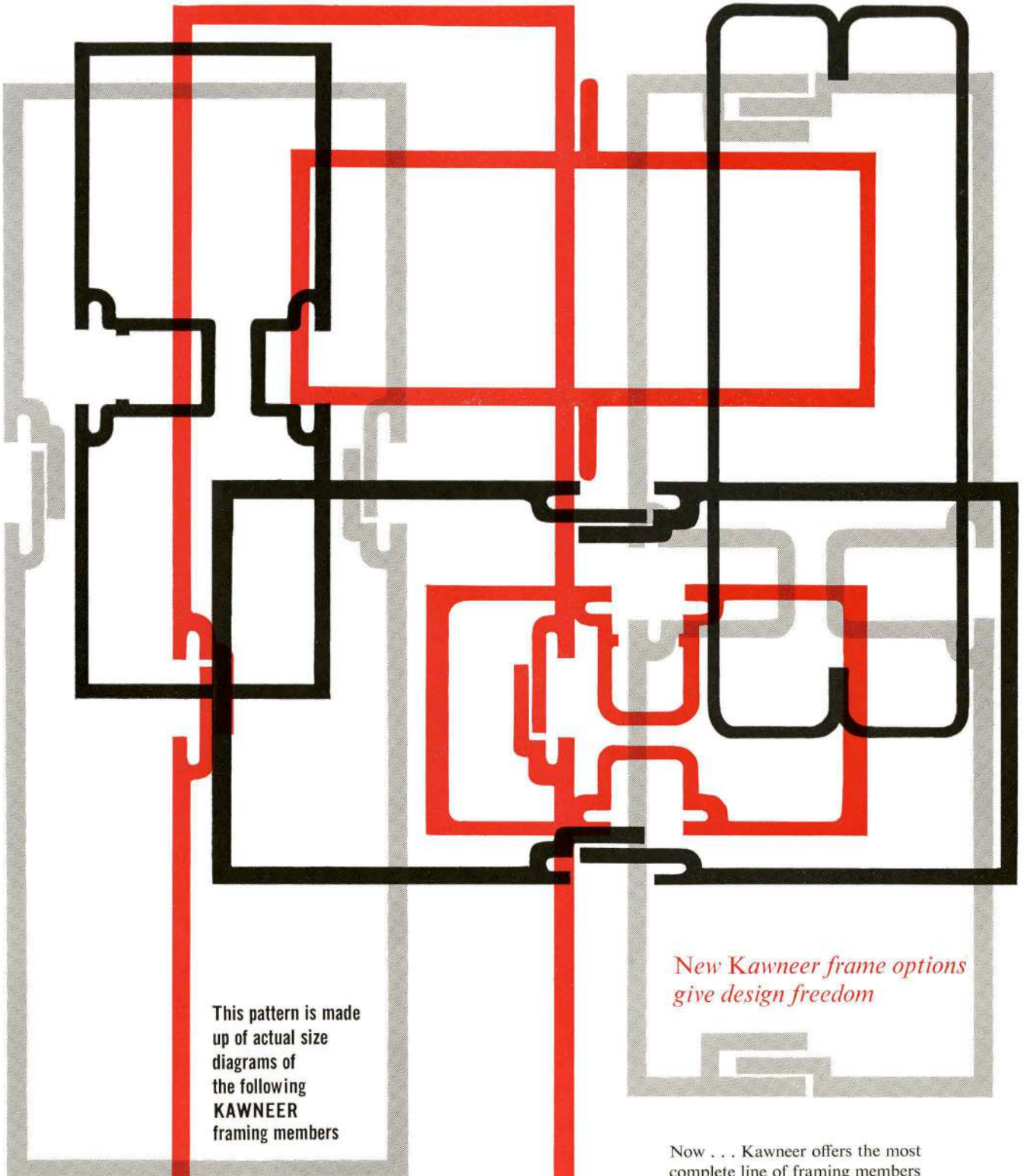
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Write for pamphlet No. 36 to Walker, Crossweller & Co. Ltd., 16th Avenue East, Markham, Ontario; or phone Markham 277. Our manager's name is George Starr.



This pattern is made up of actual size diagrams of the following **KAWNEER** framing members

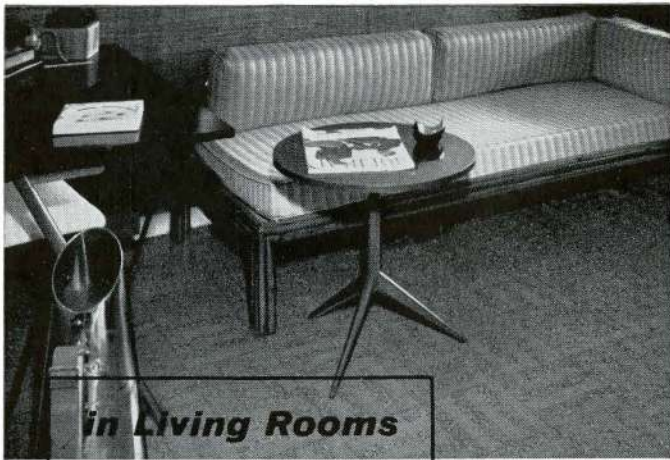
- | | |
|--|--|
| Narrow Line 300
(1 1/4" x 3" frame) | Narrow Line 550
(2 3/4" x 5 1/2" frame) |
| Narrow Line 400
(1 1/4" x 4" frame) | Narrow Line 700
(2 1/2" x 7" frame) |
| Narrow Line 450
(1 3/4" x 4 1/2" frame) | Narrow Line 750
(2 3/4" x 7 1/2" frame) |
| Narrow Line S 500
(1 3/4" x 5" frame) | Narrow Line 950
(2 3/4" x 9 1/2" frame) |

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Now . . . Kawneer offers the most complete line of framing members available, dry or wet glazing, applied stops or flush glazed. Write to Dept. 75, Kawneer Company Canada Limited, 1460 Don Mills Rd., Don Mills, Ontario, for complete details.



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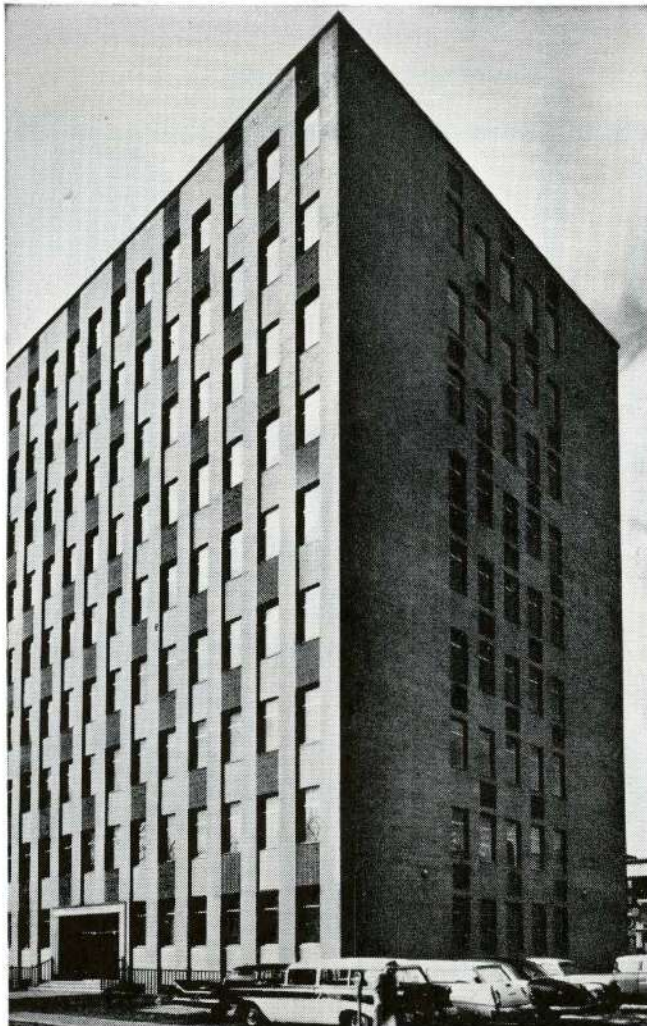
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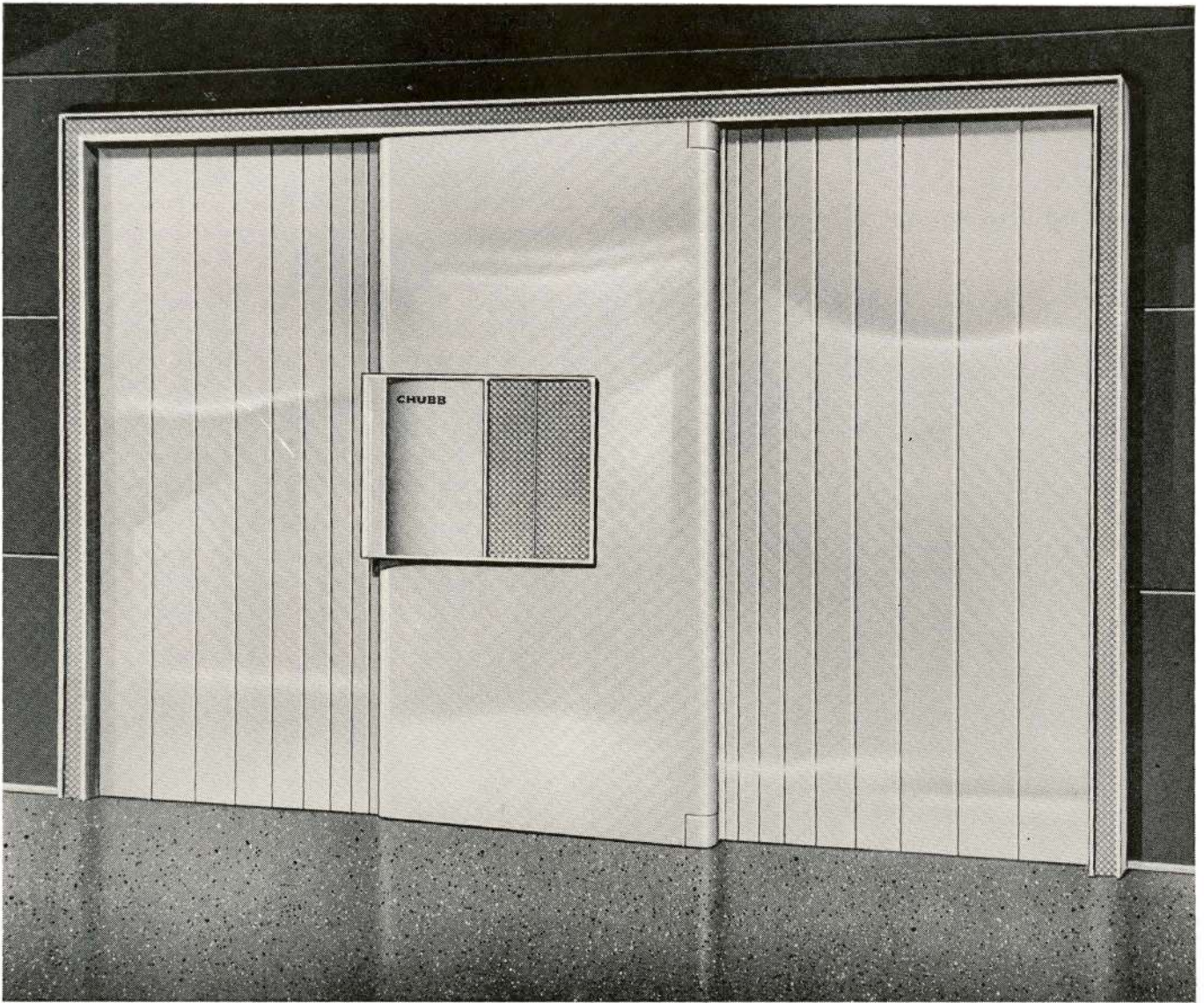
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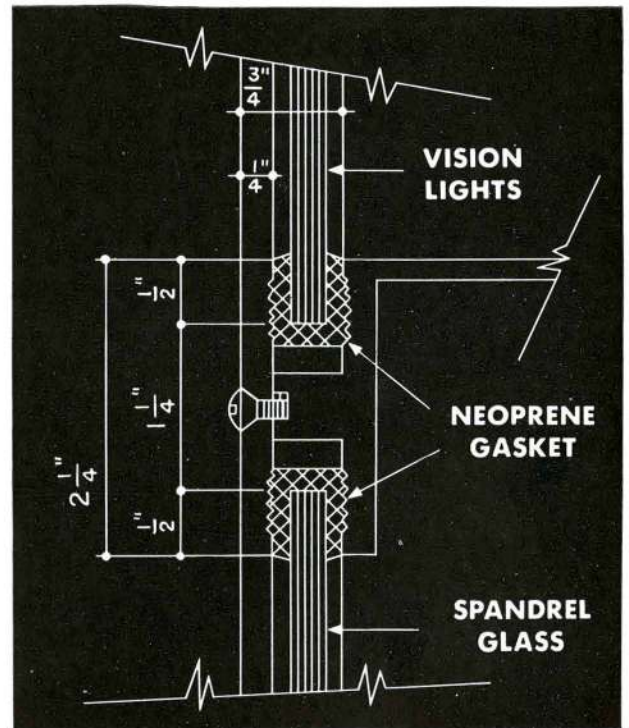
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1 x 4 AND 2 x 4
FOR 2 OR 4 40 WATT
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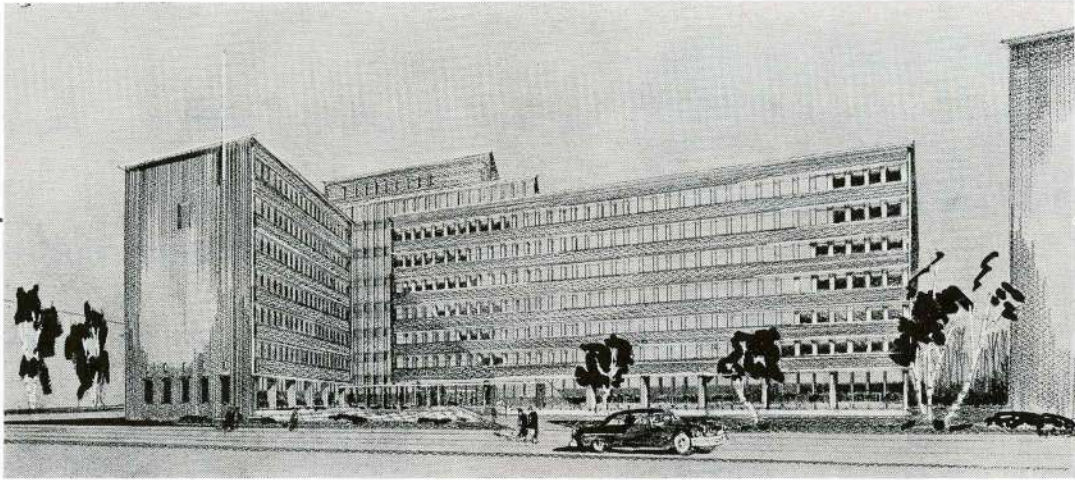
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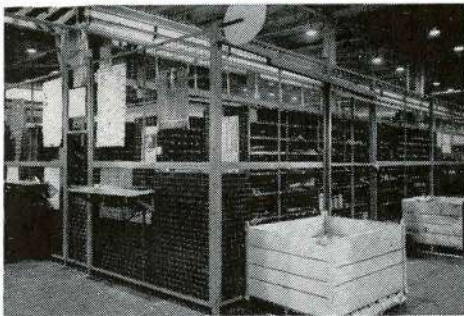
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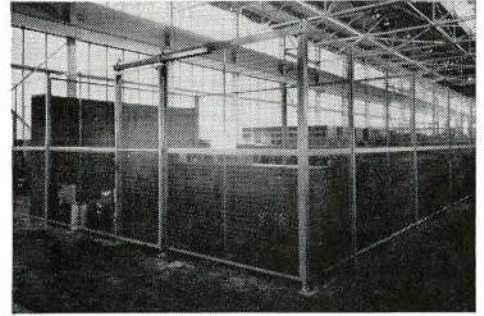
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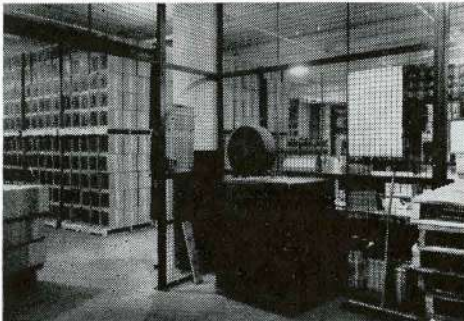
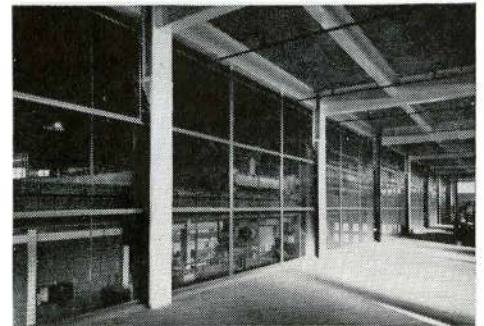
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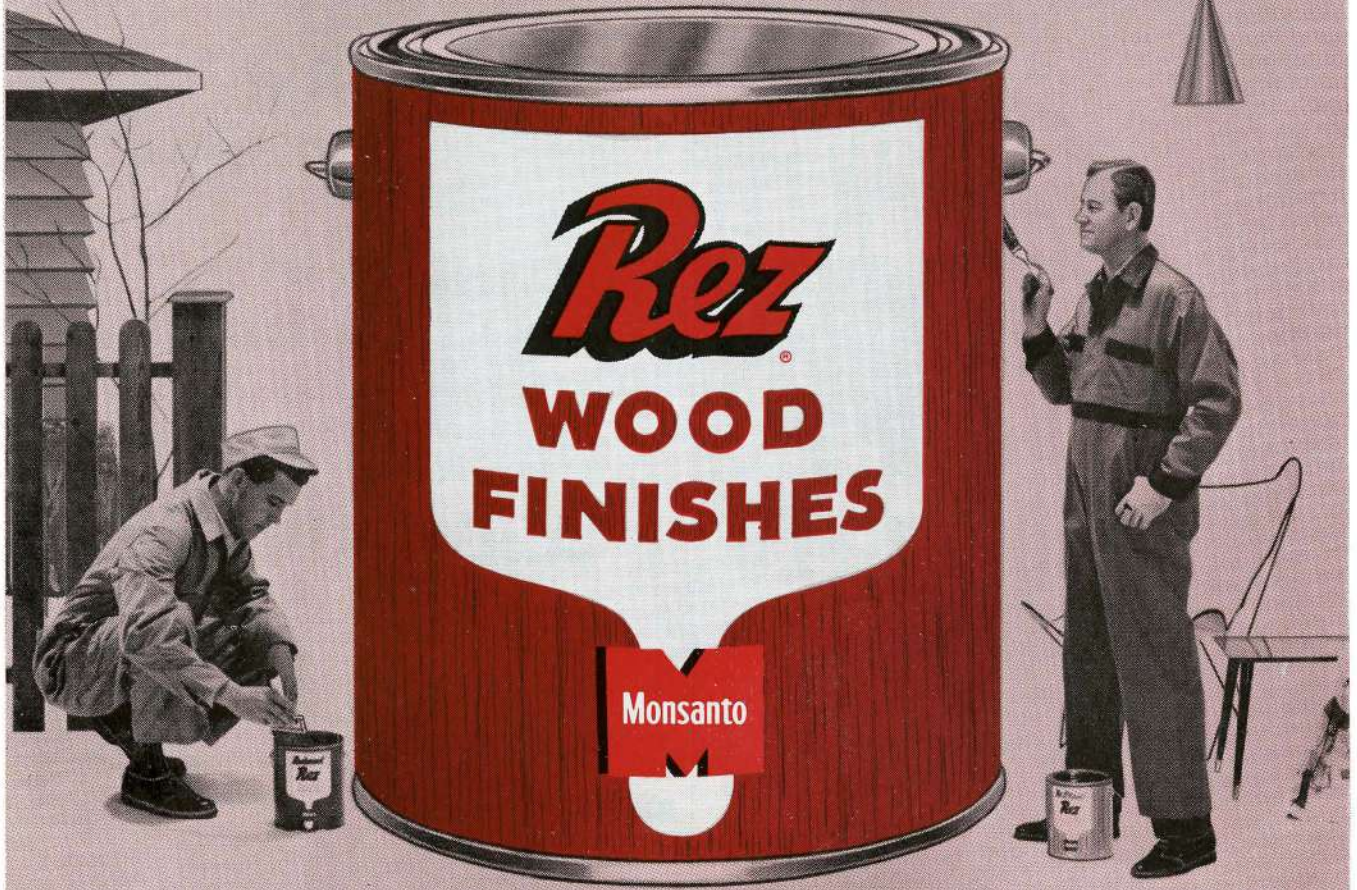


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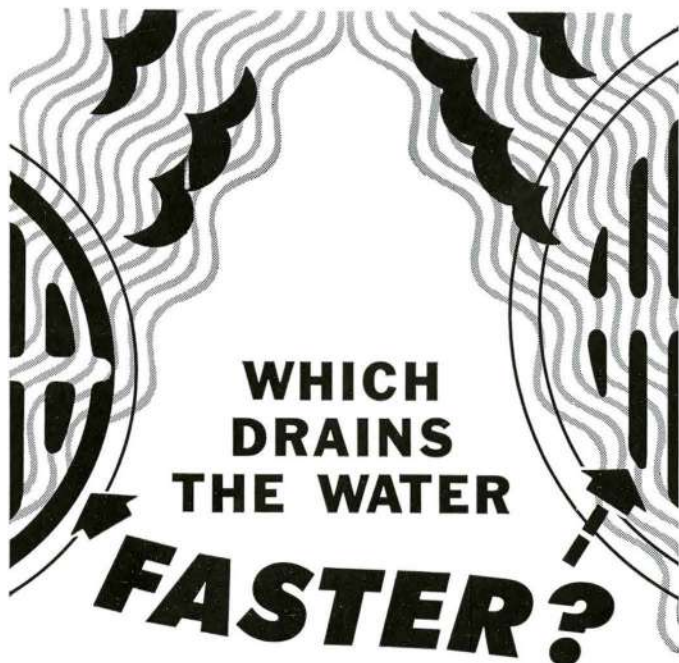
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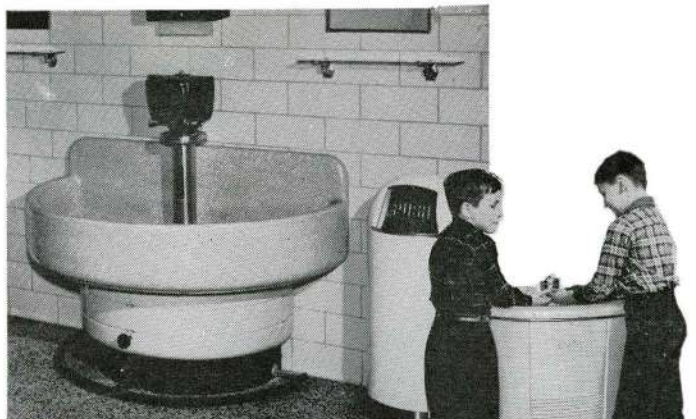
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BRADLEY DUO-WASH FOUNTAINS**

Bradley Duo-Washfountains are ideal for the smaller washroom. The Bradley Duo is ultra sanitary — no faucets to touch — a foot pedal serving to control the tempered water supply provided by the sprayhead.

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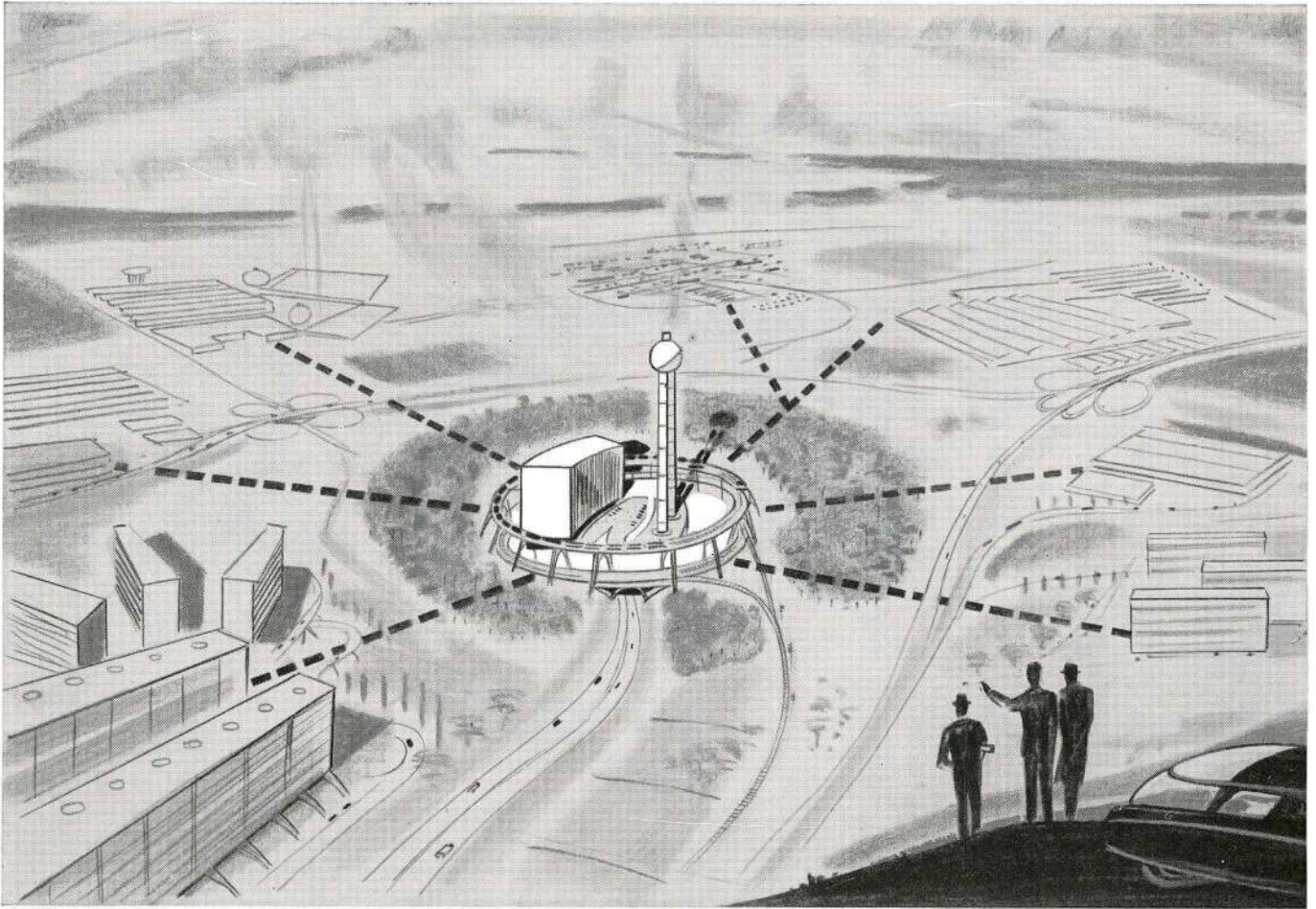
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- (2) A large shopping plaza with 38 stores and buildings heated by Coal from a Central source.
- (3) Toronto University (and many other Universities).

(4) A group of Canada's largest hospitals.

(5) The major portion of London, Ontario's Downtown Business District.

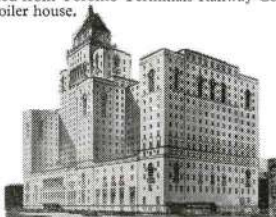
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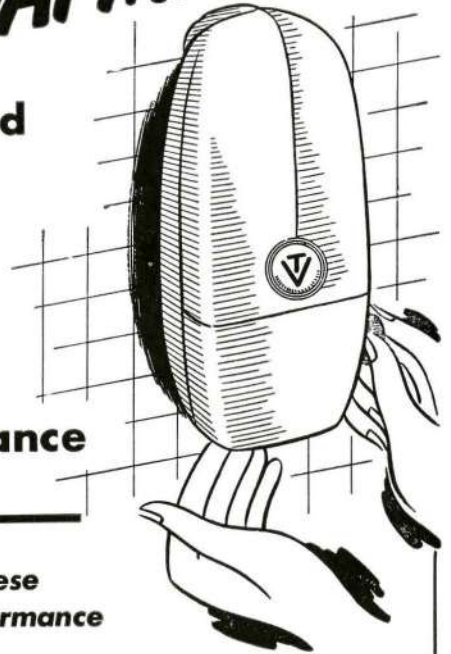
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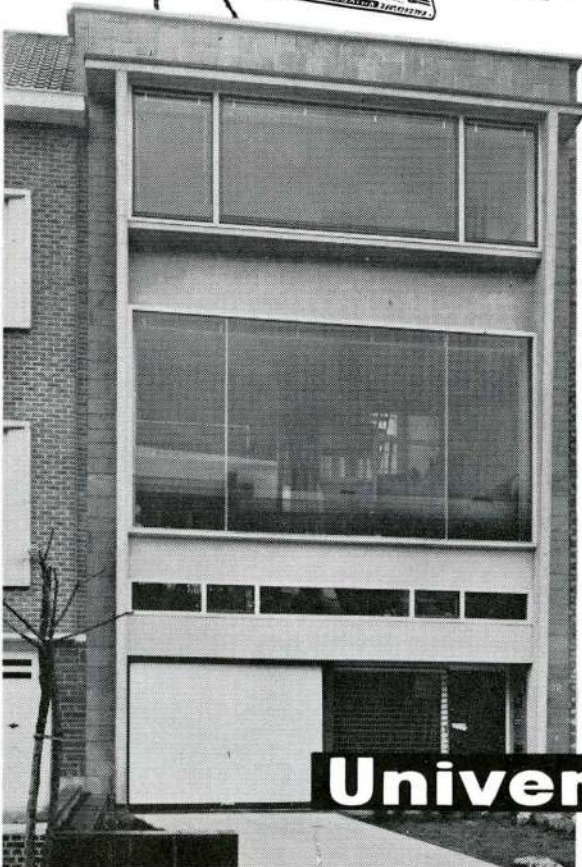
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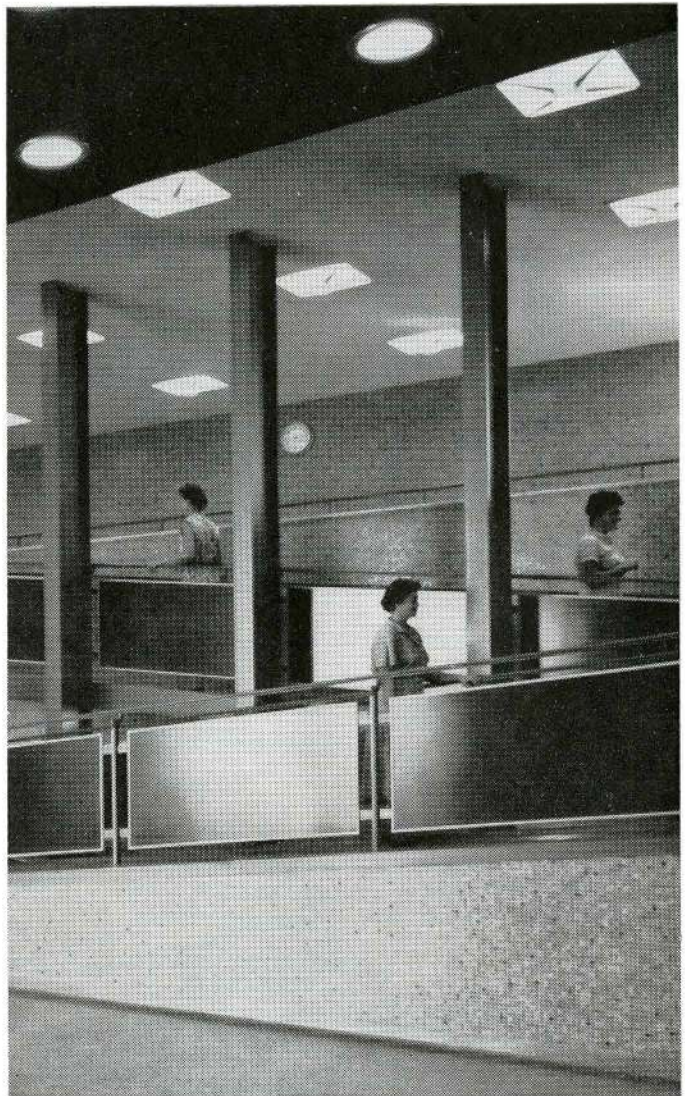
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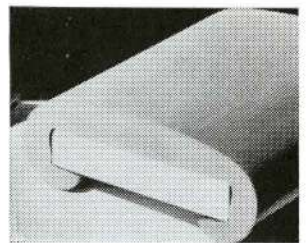
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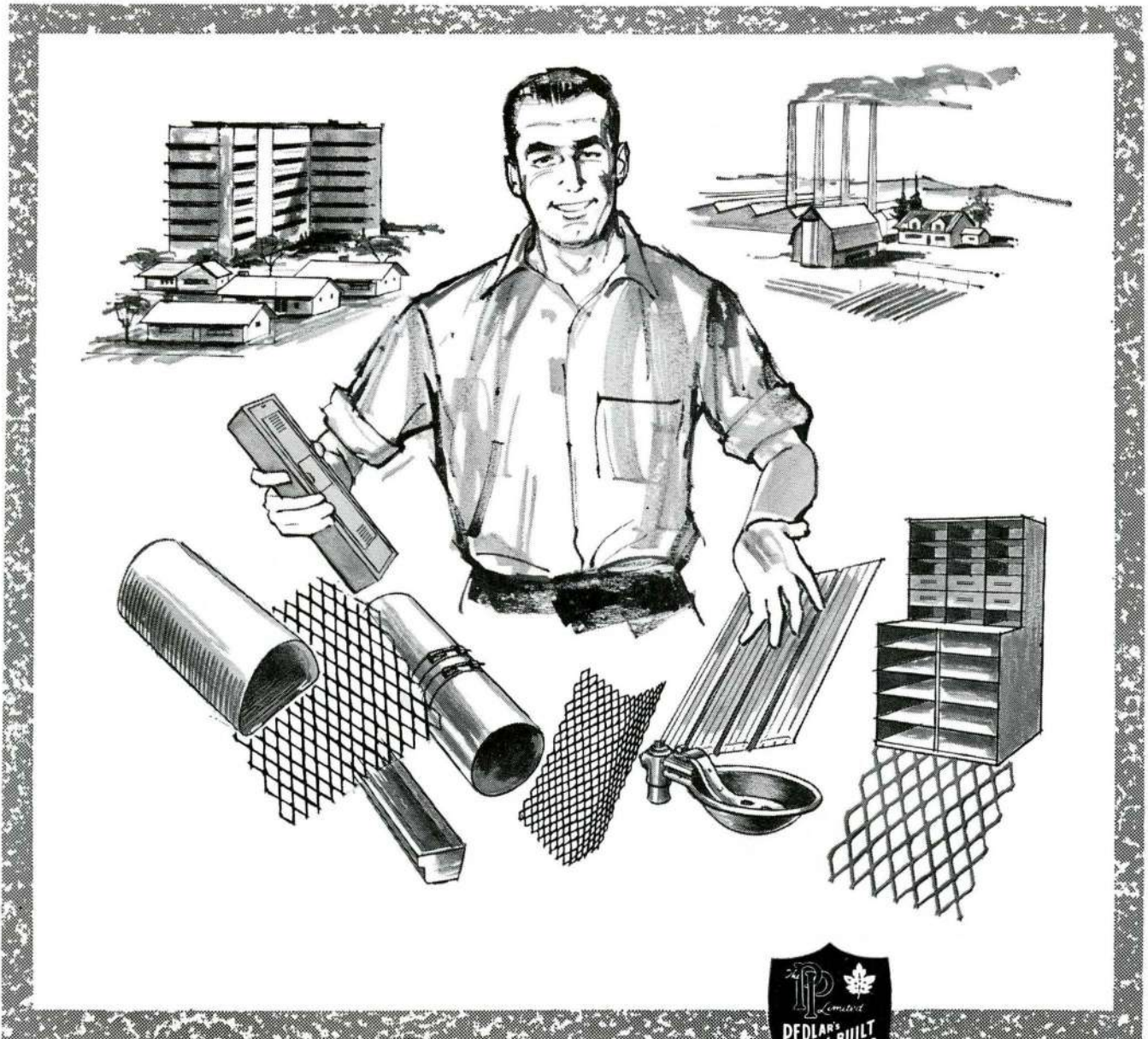
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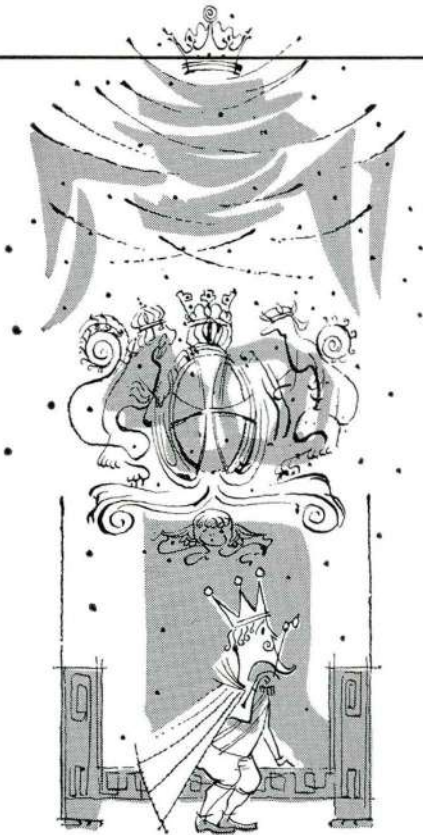


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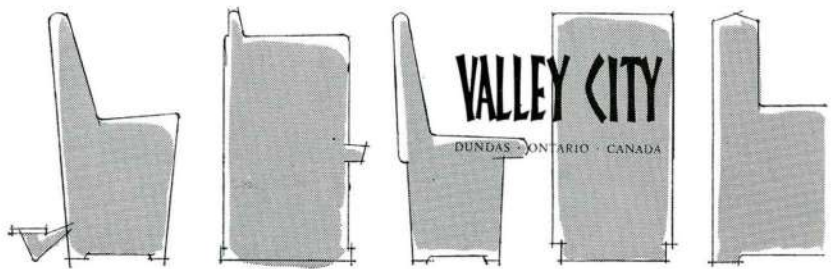
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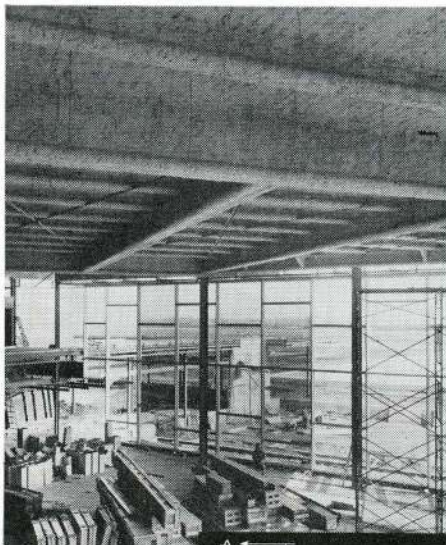
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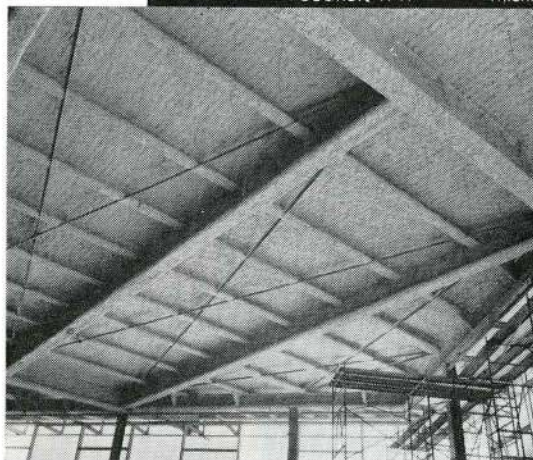
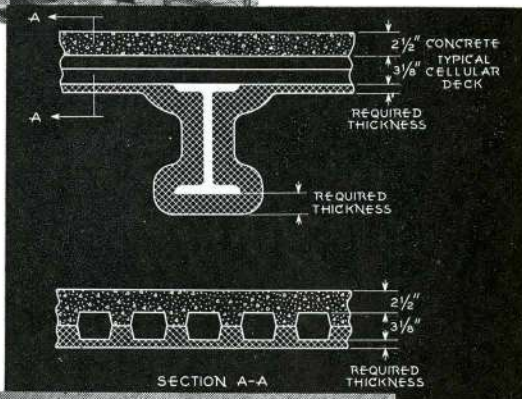
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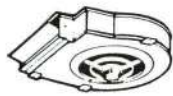
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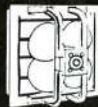
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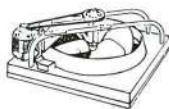
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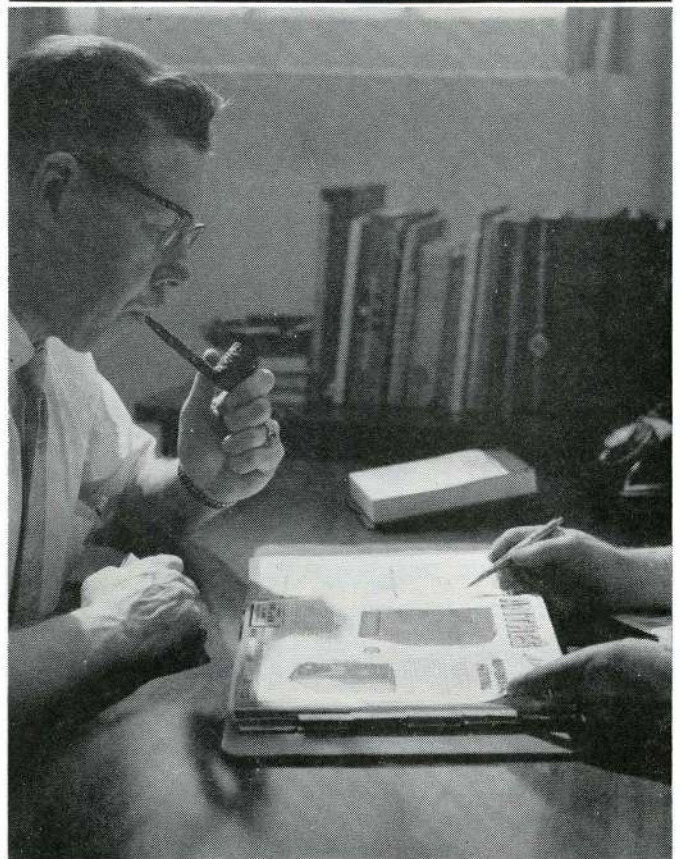
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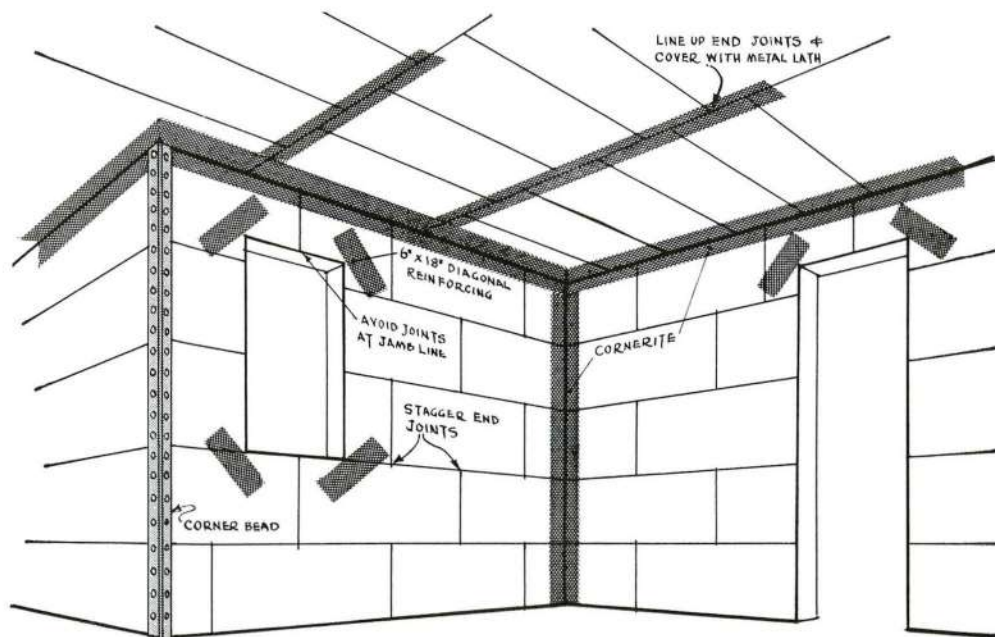
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Journal RAIC, April 1960

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PUBLISHED BY GYPSUM, LIME & ALABASTINE LIMITED

SUBJECT GYPSUM
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BULLETIN BP-15
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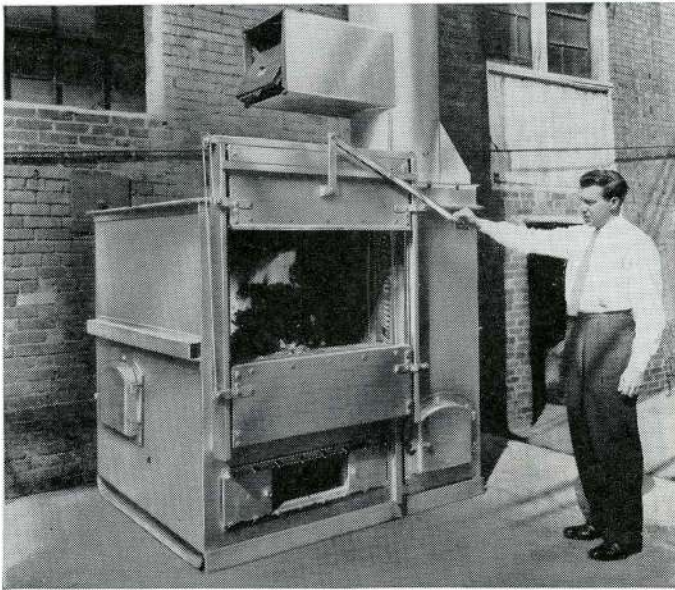


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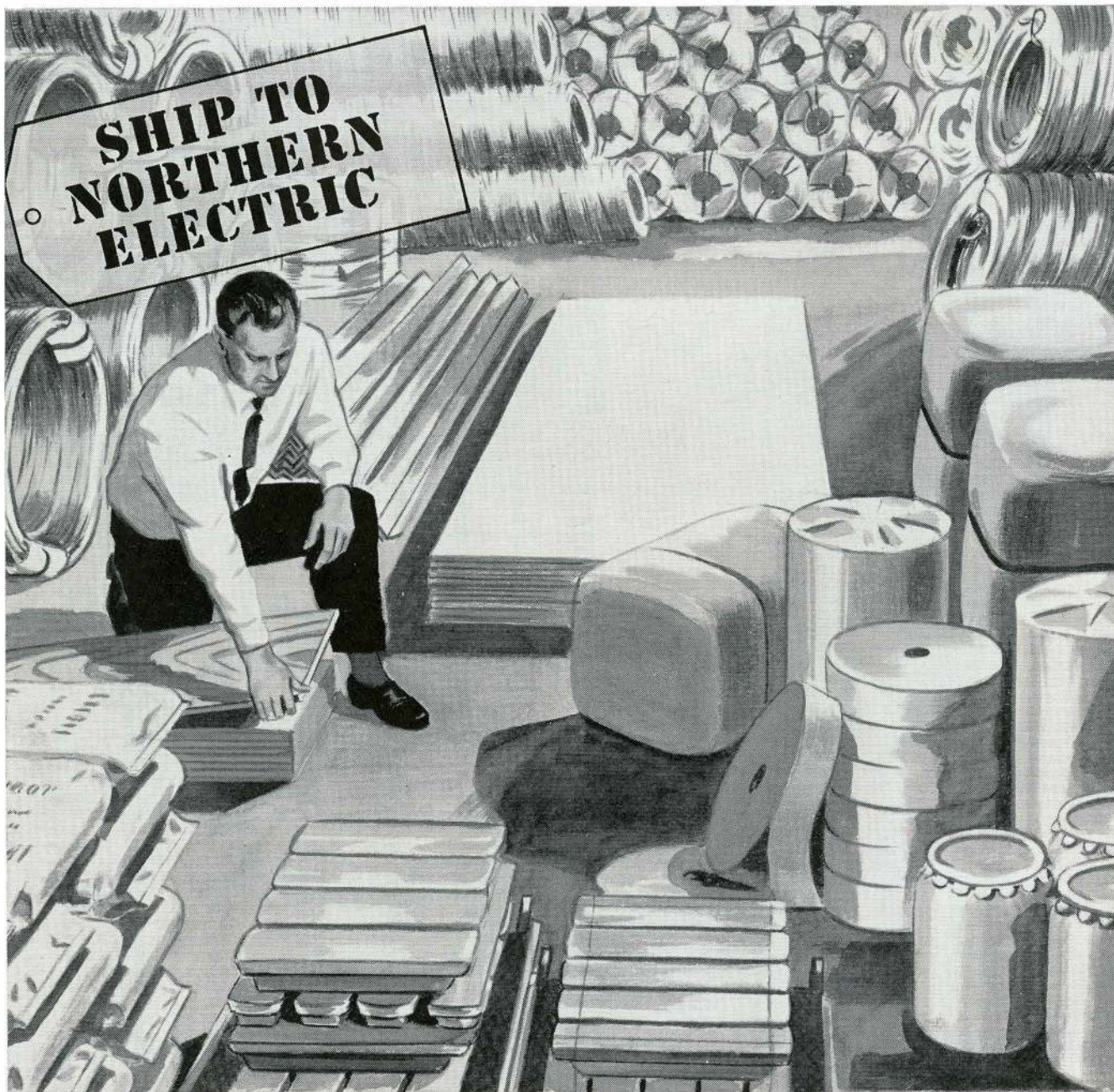
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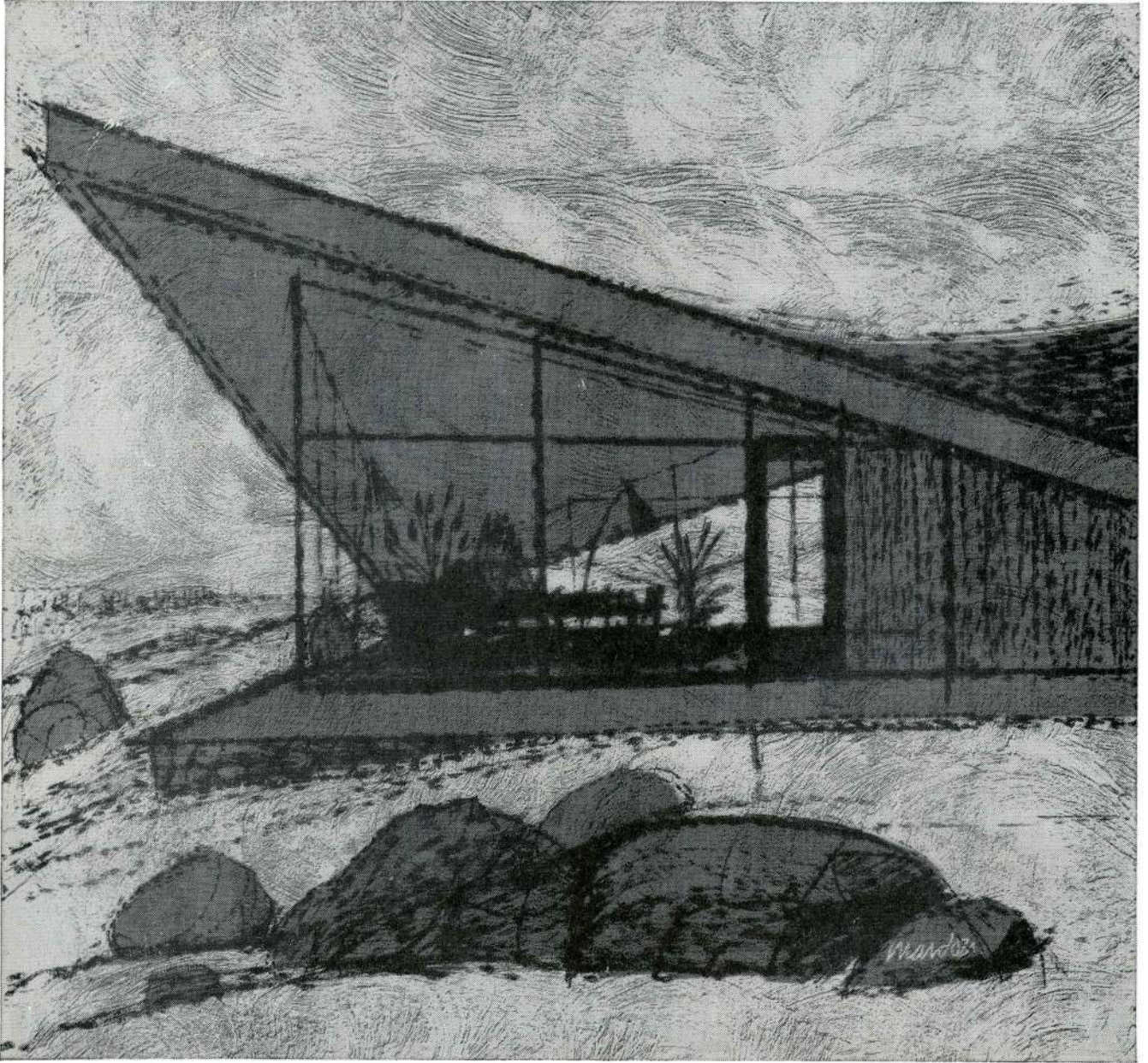
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